

AMITY UNIVERSITY

— R A J A S T H A N —

PROGRAMME OUTCOMES (POs),

PROGRAMME SPECIFIC OUTCOMES (PSOs),

PROGRAMME STRUCTURE & COURSE OUTCOMES (COs)

INDEX

Sr.No.	Institute	Page No.
1.	Amity Business School (ABS)	3
2.	Amity School of Hospitality (ASH)	145
3.	Amity School of Engineering & Technology (ASET)	209
4.	Amity Institute of Information Technology (AIIT)	525
5.	Amity Institute of Biotechnology (AIB)	645
6.	Amity Institute of Microbial Technology (AIMT)	852
7.	Amity School of Applied Sciences (ASAS)	889
8.	Amity Institute of Behavioral & Allied Sciences (AIBAS)	956
9.	Amity Institute of Clinical Psychology (AICP)	992
10.	Amity School of Language (ASL)	999
11.	Amity School of Liberal Arts (ASLA)	1054
12.	Amity School of Communication (ASCO)	1145
13.	Amity Law School (ALS)	1226
14.	Amity School of Architecture and Planning (ASAP)	1385
15.	Amity School of Fashion Technology (ASFT)	1504
16.	Amity School of Fine Arts (ASFA)	1542



AMITY UNIVERSITY
— R A J A S T H A N —

ABBREVIATIONS

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non -Teaching Credit Courses (NTCC)



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY BUSINESS SCHOOL (ABS)

Master of Business Administration

Programme Code: MBA

12019

Duration – 2 Years Full Time

Programme Structure

MBA

Sem	CC	DE	VA	OE	NTCC	Anandam	Total
I	20		4			2	26
II	23		4	3		2	32
III	3	18	4	3	9	2	39
IV	3	12			9		24
Total	49	30	12	6	18	6	121

Program Specific Outcomes (PSOs)

The MBA Program incorporates experiential learning to equip participants with the competence of both analysis and synthesis to function in the global economy. The program is designed to develop ethical and socially-oriented leaders who create value for their organizations and society at large.

Program Outcomes	On completion of this program, participants should be able to:
Demonstrate proficiency in management concepts	<ol style="list-style-type: none"> 1. Demonstrate mastery over knowledge in various functional areas of management. 2. Analyze and apply various management concepts and theories to facilitate a problem solving approach. 3. Demonstrate research and technical skills to analyze 4. managerial challenges.
Reflect professional attitude	<ol style="list-style-type: none"> 1. Apply leadership skills to communicate and engage with various stakeholders. 2. Communicate persuasively and clearly in variety of modes. 3. Propose innovative approaches to manage challenges. 4. Formulate business decisions with diverse and multicultural perspectives. 5. Combine un-compromising result orientation with ethical consideration. 6. Optimize resource utilization.
Develop cognitive skills and encourage critical thinking	<ol style="list-style-type: none"> 1. Exhibit critical analysis and understanding of various business issues. 2. Apply a multidisciplinary approach to creative and innovative thinking. 3. Demonstrate the ability to work effectively in a cross - cultural team.
Develop new understanding	<ol style="list-style-type: none"> 1. Anticipate emerging issues and social concerns. 2. Develop the capacity for self-learning. 3. Integrate theories and applications in decision making for global alliances.
Exhibit ethically responsible decision-making behavior	<ol style="list-style-type: none"> 1. Evaluate and integrate business decisions with an ethical perspective. 2. Anticipate emerging ethical issues and their probable implications.
Fostering Entrepreneurial Attitude	<ol style="list-style-type: none"> 1. Identify and nurture entrepreneurial tendencies necessary to implement innovative business ideas. 2. Generate and analyses new business plans.
Professional development	<ol style="list-style-type: none"> 1. Manage change through effective communication. 2. Utilize local, national and global business knowledge. 3. Employ social and emotional wisdom. 4. Prove a very high degree of result orientation.

PROGRAMME STRUCTURE

AMITY BUSINESS SCHOOL (ABS)
Master of Business Administration

FIRST SEMESTER

Course Code	Course Title	1. Category	2. Lectures (L) Hours per week	3. Tutorial (T) Hours per week	4. Project (P)/Term Paper (TP)	5. Total Credits
MBA101	Organization Behavior	CC	3	0	0	3
MBA102	Accounting for Management	CC	2	1	0	3
MBA103	Managerial Economics	CC	3	0	0	3
MBA104	Marketing Management	CC	3	0	0	3
MBA105	Information Technology for Managers	CC	2	0	2	3
MBA106	Quantitative Techniques in Management	CC	2	1	0	3
MBA112	Managerial Communication-I	CC	2	0	0	2
	Anandam	NTC C	2	-	-	2
Value Added Courses						
BCS111	Business Communication – I	VA	1	-	-	1
BSS111	Behavioral Science – I	VA	1	-	-	1
	Foreign Language – I	VA	2	-	-	2
FLN111	French					
FLG111	German					
FLS111	Spanish					
FLJ111	Japanese					
FLC111	Chinese					
	TOTAL			2	2	26

**AMITY BUSINESS SCHOOL (ABS)
Master of Business Administration**

SECOND SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Project (P)/Term Paper (TP) Hours per week	Total Credits
MBA201	Human Resource Management	CC	3	0	0	3
MBA202	Financial Management	CC	2	1	0	3
MBA205	Operations Management	CC	2	1	0	3
MBA210	Economic Analysis	CC	3	0	0	3
MBA281	Business Research Methods	CC	2	1	0	3
MBA292	Legal Aspects of Business	CC	2	1	0	3
MBA211	Business Modeling and Analytics	CC	2	0	2	3
MBA225	Managerial Communication-II	CC	2	0	0	2
	Open Elective-I	OE	3	0	0	3
	Anandam	NTCC	2	0	0	2
Value Added Courses						
BCS211	Business Communication – II	VA	1	0	0	1
BSS211	Behavioral Science – II	VA	1	0	0	1
	Foreign Language – II					
FLN211	French					
FLG211	German					
FLS211	Spanish					
FLJ211	Japanese					
FLC211	Chinese	VA	2	0	0	2
	TOTAL					32

**AMITY BUSINESS SCHOOL (ABS)
Master of Business Administration**

THIRD SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Project (P)/Term Paper (TP) Hours per week	Total Credits
MBA350	Summer Internship	NTCC	0	0	14	9
MBA353	Entrepreneurship & New Venture Creation	CC	2	1	0	3
	Anandam	NTCC	2	0	0	2
	Open Elective-II	OE	3	0	0	3
Domain Elective-III: Choose six courses amounting to minimum 18 credits from the following courses. Choose (3+3) for Dual Specialization and (4+2) for Major & Minor Specialization						
Agribusiness Management						
MBA311	Post - Harvest Management	DE	2	1	0	3
MBA312	Agricultural Input Marketing	DE	2	1	0	3
MBA313	Rural Marketing	DE	2	1	0	3
MBA380	Social Banking & Micro Finance	DE	2	1	0	3
MBA383	Agribusiness and Rural Environment	DE	2	1	0	3
Finance and Accounting						
MBA318	Cost and Management Accounting	DE	2	1	0	3
MBA319	Large Scale Investment	DE	2	1	0	3
MBA320	International Finance	DE	2	1	0	3
MBA322	Security Analysis & Portfolio Management	DE	2	1	0	3
MBA379	Fixed Income Investments	DE	2	1	0	3
MBA380	Social Banking & Micro Finance	DE	2	1	0	3
Human Resource						
MBA324	Industrial Relations & Labor Laws	DE	2	1	0	3
MBA325	Performance & Competency Management	DE	2	1	0	3
MBA326	Strategic Human Resource Management	DE	2	1	0	3
MBA329	HR Audit & HR Information Systems	DE	2	1	0	3
MBA377	General Human Psychology	DE	2	1	0	3
MBA378	Compensation & Reward Management	DE	2	1	0	3
MBA390	Recruitment, Selection, Training & Development	DE	2	1	0	3
International Business						
MBA320	International Finance	DE	2	1	0	3
MBA336	Export Import Documentation & Logistics	DE	2	1	0	3
MBA340	International Economics & Policy	DE	2	1	0	3
MBA371	WTO & International Regulatory Environment	DE	2	1	0	3
MBA372	International Business Strategy	DE	2	1	0	3

MBA373	Growth Prospects of Thrust Areas of Indian Exports	DE	2	1	0	3
MBA391	International Cross Cultural Management	DE	2	1	0	3
Marketing and Sales						
MBA313	Rural Marketing	DE	2	1	0	3
MBA360	Consumer Behavior	DE	2	1	0	3
MBA361	Product & Brand Management	DE	2	1	0	3
MBA362	Advertising & Sales Promotion	DE	2	1	0	3
MBA374	Marketing Research	DE	2	1	0	3
MBA375	Retail & Mall Management	DE	2	1	0	3
MBA376	Digital Marketing	DE	2	1	0	3
MBA392	Sales Management	DE	2	1	0	3
Digital Marketing and Customer Analytics						
MBA331	E Commerce and Online Business Models	DE	2	1	0	3
MBA332	Digital Marketing Strategies	DE	2	1	0	3
MBA333	Digital Branding and Engagement	DE	2	1	0	3
MBA334	Digital Marketing Analytics	DE	2	1	0	3
Data Science And AI						
MBA385	AI Technologies	DE	2	2	0	3
MBA386	Big Data Analytics	DE	2	2	0	3
MBA387	Business process Automation	DE	2	2	0	3
MBA388	Data Science Products	DE	2	2	0	3
Value Added Courses						
BSC311	Business Communication – III	VA	1	0	0	1
BSS311	Behavioral Science – III	VA	1	0	0	1
	Foreign Language – III					
FLN311	French					
FLG311	German					
FLS311	Spanish					
FLJ311	Japanese					
FLC311	Chinese	VA	2	0	0	2
	TOTAL					39

AMITY BUSINESS SCHOOL (ABS)
Master of Business Administration

FOURTH SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Project (P)/Term Paper (TP) Hours per week	Total Credits
MBA451	Strategic Management	CC	2	1	0	3
MBA455	Dissertation	NTCC	0	0	18	9
Domain Elective-III: Choose four courses amounting to minimum 12 credits from the following courses. Choose (2+2) for Dual Specialization and (3+1) for Major & Minor Specialization						
Agribusiness Management						
MBA405	Agricultural Risk Management	DE	2	1	0	3
MBA406	Food Processing Management	DE	2	1	0	3
MBA408	Marketing Models in Agribusiness	DE	2	1	0	3
MBA409	Agricultural Marketing Management	DE	2	1	0	3
Finance and Accounting						
MBA414	Financial Engineering	DE	2	1	0	3
MBA472	Strategic Financial Management	DE	2	1	0	3
MBA473	Behavioral Finance	DE	2	1	0	3
MBA497	Management of Financial Institutions	DE	2	1	0	3
Human Resource						
MBA419	Social & Industrial Psychology	DE	2	1	0	3
MBA420	Organization Structure, Design & HR Planning	DE	2	1	0	3
MBA422	Global Human Resource Management	DE	2	1	0	3
MBA496	Organizational Change & Development	DE	2	1	0	3
International Business						
MBA430	Global Outsourcing: Issues & Perspective	DE	2	1	0	3
MBA431	International Marketing	DE	2	1	0	3
MBA433	Foreign Trade Policy	DE	2	1	0	3
MBA495	International Business & Practices	DE	2	1	0	3
Marketing and Sales						
MBA431	International Marketing	DE	2	1	0	3
MBA463	Customer Relationship Management	DE	2	1	0	3
MBA471	Supply Chain Management	DE	2	1	0	3
MBA494	Marketing of Services	DE	2	1	0	3
Digital Marketing and Customer Analytics						
MBA441	Social Media Marketing	DE	2	1	0	3
MBA442	Content Marketing	DE	2	1	0	3
MBA443	Consumer Behaviour in Digital World	DE	2	1	0	3
Data Science And AI						
MBA452	Data Science with R	DE	2	2	0	3

MBA453	Data Visualization	DE	2	2	0	3
MBA454	Blockchain technologies and Application	DE	2	2	0	3
	Total					24

Total Credits (22+28+40+24)

COURSE OUTCOMES

Course Name	Course Code	LTP	Credit	Semester
ORGANIZATION BEHAVIOUR	MBA101	3:0:0	3	1

COURSE OUTCOMES (CO)

CO 1	Develop an understanding of key Organizational Behaviour concepts and how they apply to the world of work.
CO 2	Understand and Analyse individual (self and others) and group behaviour including their respective defining elements.
CO 3	Understand the concepts of power and motivation, and apply them to earn the commitment of others.
CO 4	Improve team skills and gain an appreciation of team dynamics
CO 5	Analyse and interpret the impact of organizational culture on organizations.
CO 6	Understand key factors in implementing change.

Course Name	Course Code	LTP	Credit	Semester
ACCOUNTING FOR MANAGEMENT	MBA102	3:0:2	3	1

COURSE OUTCOMES (CO)

CO 1	Conceptualize the nature and role of the three principal financial statements (i.e., the Income Statement, the Statement of Financial Position and the Statement of Cash Flows)
CO 2	Develop an awareness and understanding of the accounting process and fundamental accounting principles that underpin the development of financial statements
CO 3	Demonstrate the ability to read, interpret and analyze financial statements using techniques of financial analysis like cash flow statement, ratio analysis, trend analysis, common size and comparative analysis with other information to assess the financial performance and position of a company.
CO 4	Comprehend and apply course concepts to analyze common business management decisions to address financial issues of a firm.

Course Name	Course Code	LTP	Credit	Semester
MANAGERIAL ECONOMICS	MBA103	3:0:0	3	1

COURSE OUTCOMES (CO)

CO 1	Apply the economic approach to individual and business decisions.
CO 2	Analyze the forces of demand and supply and price mechanism in the market place.
CO 3	Estimate the business implications of changes in product price, consumer income and price of substitutes/complements.
CO 4	Analyze the output and cost behaviour in short and long run.
CO 5	Identify nature and intensity of competition in different types of market.
CO 6	Define and apply key concepts in decision analysis and game theory.

Course Name	Course Code	LTP	Credit	Semester
MARKETING MANAGEMENT	MBA104	3:0:0	3	1

COURSE OUTCOMES (CO)

CO 1	Develop understanding of core concepts of marketing and the role of marketing in business and society.
CO 2	Ability to analyze marketing problems and provide solutions based on a critical examination of marketing information.
CO 3	Critically analyse and apply marketing strategies based on product, price, place and promotion objectives, under ethical consideration of different market situations.
CO 4	Develop an integrated marketing communications plan, which includes promotional strategies, unique marketing mixes and selling propositions for specific product offerings.
CO 5	Develop the ability to collect, process, and analyze consumer data to make informed marketing decisions

Course Name	Course Code	LTP	Credit	Semester
INFORMATION TECHNOLOGY FOR MANAGERS	MBA105	3:0:0	3	1

COURSE OUTCOMES (CO)

CO 1	Describe the role of information technology and information systems in business.
CO 2	Analyze how information technology impacts a firm Improve team skills and gain an appreciation of team dynamics.
CO 3	Interpret how to use information technology to solve business problems.
CO 4	Demonstrate how to build a physical model of the database from the theoretical model and write database queries to answer business questions.
CO 5	Articulate the fundamental principles of telecommunication and understand the principles of wired and wireless telecommunication.
CO 6	Construct a solution to an E- business problem by developing a commercial website, management tool.

Course Name	Course Code	LTP	Credit	Semester
QUANTITATIVE TECHNIQUES IN MANAGEMENT	MBA106	2:1:0	3	1

COURSE OUTCOMES (CO)

CO 1	Elucidate basic statistical and mathematical concepts and tests used in data analysis;
CO 2	Identify business situations where quantitative techniques can appropriately used;
CO 3	Apply quantitative methods to analyse data and to understand other people's use of these methods;
CO 4	Identify linear relationships between two or more variables and develop regression models to forecast;
CO 5	Develop testable hypothesis and select appropriate data analysis tools to test the hypothesis;
CO 6	Use output-derived from statistical procedures and use the output to identify and solve management challenges; and
CO 7	Use critical thinking to analyse management challenges through learning and study, individually or in a group.

Course Name	Course Code	LTP	Credit	Semester
MANAGERIAL COMMUNICATION - I	MBA112	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Understand the most common selection processes and will be able to perform effectively.
CO 2	Understand various dos and don'ts of communication especially in online mode.
CO 3	Exhibit effective communication and demonstrate effective interpersonal behaviour.
CO 4	Demonstrate effective handling of difficult questions/situations during communication.
CO 5	Display effectiveness in resume building and identify/rectify most common mistakes.

Course Name	Course Code	LTP	Credit	Semester
AANANDAM-I	AND001	0:0:0	2	1

COURSE OUTCOMES (CO)

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
BUSINESS COMMUNICATION - I	BCS111	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - I (SELF-DEVELOPMENT AND INTERPERSONAL SKILLS)	BSS111	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Demonstrate the ability to analyse a problem and devise a solution in a group.
CO 2	Construct and showcase their communication skills in a creative manner.
CO 3	Become more expressive in their body language.

Course Name	Course Code	LTP	Credit	Semester
GERMAN - I	FLG 111	2:0:0	2	1

COURSE OUTCOMES (CO)

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
Spanish - I	FLS 111	2:0:0	2	1

COURSE OUTCOMES (CO)

CO 1	-Self introduction
CO 2	Possessions.
CO 3	Family/friend description with verbs like SER/ESTAR/TENER/HAY
CO 4	Regular AR/ER/IR ending verbs conjugations
CO 5	Interrogative words

Course Name	Course Code	LTP	Credit	Semester
CHINESE – I	FLC 111	2:0:0	2	1

COURSE OUTCOMES (CO)

CO 1	Read, write and speak approx. 50 New Chinese words and understand basic grammar points.
CO 2	Interpret words, phrases and sentences of day today conversation related to greeting farewell and personal information like name age, residence, family etc.
CO 3	Write Chinese characters, simple sentence and a paragraph on Self Introduction.
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to greeting, farewell and personal information like name age, residence family etc.

Course Name	Course Code	LTP	Credit	Semester
HUMAN RESOURCE MANAGEMENT	MBA201	3:0:0	3	2

COURSE OUTCOMES (CO)

CO 1	Learn and be sensitized about HRM frameworks and HRM role in overall management of an organization.
CO 2	Develop an understanding of key HRM theories and processes and how they apply to the world of work.
CO 3	Look at numerous HRM issues, their causes, and what strategies should be implemented to achieve solutions.

CO 4	Evaluate, design and formulate various HRM processes such as recruitment, orientation, selection, training, appraisals and reward system, compensation etc
CO 5	Evaluate the developing role and trends of HRM in global arena

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL MANAGEMENT	MBA202	2:1:0	3	2

COURSE OUTCOMES (CO)

CO 1	Recognize essential components of modern finance theory and its application in making crucial financial decisions;
CO 2	Illustrate the use of various tools of financial management in selecting the best among the various choices;
CO 3	Demonstrate technical skills by solving specific problems helpful in evaluating different possibilities for competitive advantage;
CO 4	Have the opportunity to apply problem solving and analytical skills to issues in financial management; and
CO 5	Use critical thinking to analyse management challenges through learning and study, individually or in a group.

Course Name	Course Code	LTP	Credit	Semester
OPERATIONS MANAGEMENT	MBA205	2:1:0	3	2

COURSE OUTCOMES (CO)

CO 1	Describe and identify different concepts of Operations management
CO 2	Recognize and identify various strategies of operations to take advantage in market
CO 3	Assess various tasks and functions of operations from location analysis to Quality management
CO 4	Analyze and Implement the various Operation management concepts

CO 5	Use critical thinking to analyse management challenges through learning and study, individually or in a group.
-------------	--

Course Name	Course Code	LTP	Credit	Semester
ECONOMIC ANALYSIS	MBA210	3:0:0	3	2

COURSE OUTCOMES (CO)

CO 1	Demonstrate adequate knowledge & understanding of the macroeconomic concepts and theories
CO 2	Distinguish between economic concepts and measurements as well as creation and interpretation of graphs.
CO 3	Calculate various macroeconomic indicators/ variables and analyze the relationship between these variables.
CO 4	Argue various macroeconomic determinants and evaluate their impact on real life.

Course Name	Course Code	LTP	Credit	Semester
BUSINESS RESEARCH METHODS	MBA281	2:1:0	3	2

COURSE OUTCOMES (CO)

CO 1	Discuss the basic concepts of business research, research philosophy & theory building
CO 2	Review literature regarding business research problem and formulating a research design
CO 3	Address issues related with questionnaire design and sampling design
CO 4	Prepare a quantitative research proposal

Course Name	Course Code	LTP	Credit	Semester
LEGAL ASPECTS OF BUSINESS	MBA292	2:1:0	3	2

COURSE OUTCOMES (CO)

CO 1	Identify validity of a Contract, classification of contract, Special contract, and performance of contract.
CO 2	Understanding of sale agreement, and related concepts
CO 3	Use of negotiable instruments in business
CO 4	Concept of company, MOA, AOA, Directors, winding up process.
CO 5	Utility of partnership, LLP, Dissolution of relevant concepts.
CO 6	Overview of intellectual property rights

Course Name	Course Code	LTP	Credit	Semester
BUSINESS MODELING and Analytics	MBA211	2:0:2	3	2

COURSE OUTCOMES (CO)

CO 1	Learn Creating effective spreadsheets
CO 2	Learn Managing large sets of data
CO 3	Mastering the use of some of Excel's most popular and highly sought after functions (SUM, VLOOKUP, IF, AVERAGE, INDEX/MATCH and many more...)
CO 4	Create a dynamic report with Excel PivotTables
CO 5	Understand the power and versatility of Microsoft Excel's AddIn, PowerPivot
CO 6	Analyze Excel Worksheet formulas to ensure clean formulas

Course Name	Course Code	LTP	Credit	Semester
MANAGERIAL COMMUNICATION - II	MBA225	1:0:0	1	2

COURSE OUTCOMES (CO)

CO 1	Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
-------------	--

CO 1	Investigate their strengths and weaknesses to have personal insights which can be revealed in a Formal Setup.
CO 2	Create right selection of words and ideas during formal communication.
CO 3	Recognize the mannerisms and methodology of Interview.
CO 4	Demonstrate and practice effective Power Dressing
CO 2	Create right selection of words and ideas while choosing the appropriate channel of formal communication
CO 3	Apply acquired knowledge with the appropriate selection of channel of formal communication.
CO 4	Develop and empower self with the ease of using appropriate medium of communication.

Course Name	Course Code	LTP	Credit	Semester
AANANDAM-II	AND002	0:0:0	2	2

COURSE OUTCOMES (CO)

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
BUSINESS COMMUNICATION - II	BCS211	1:0:0	1	2

COURSE OUTCOMES (CO)

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - II (BEHAVIOURAL COMMUNICATION AND RELATIONSHIP MANAGEMENT)	BSS211	1:0:0	1	2

COURSE OUTCOMES (CO)

CO 1	Demonstrate an understanding of interpersonal skills as part of effective communication processes.
CO 2	Identify the effects of behaviour on interpersonal communication
CO 3	Demonstrate a range of effective interpersonal communication skills
CO 4	Use assertiveness and interpersonal skills in the workplace team
CO 5	Utilise effective communication skills to build strong relationships
CO 6	Develop, implement and promote effective communication techniques

Course Name	Course Code	LTP	Credit	Semester
FRENCH - II	FLN211	2:0:0	2	2

COURSE OUTCOMES (CO)

CO 1	Demonstrate an understanding of interpersonal skills as part of effective communication processes.
CO 2	Identify the effects of behaviour on interpersonal communication
CO 3	Demonstrate a range of effective interpersonal communication skills
CO 4	Use assertiveness and interpersonal skills in the workplace team
CO 5	Utilise effective communication skills to build strong relationships
CO 6	Develop, implement and promote effective communication techniques

Course Name	Course Code	LTP	Credit	Semester
GERMAN – II	FLG211	2:0:0	2	2

COURSE OUTCOMES (CO)

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Materials are given in form of photocopies if felt to be necessary

Course Name	Course Code	LTP	Credit	Semester
SPANISH – II	FLS211	2:0:0	2	2

COURSE OUTCOMES (CO)

CO 1	Identify and express in Spanish vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in Spanish
CO 4	Narrate clearly ideas, themes in simple standard Spanish

Course Name	Course Code	LTP	Credit	Semester
CHINESE - II	FLC211	2:0:0	2	2

COURSE OUTCOMES (CO)

CO 1	Read, write and speak approx. 100New Chinese words and understand basic grammar points.
CO 2	Interpret words, phrases and sentences of day today conversation related to hobbies and abilities, gratitude, apology and welcome, time, weather and directions
CO 3	Write Chinesecharacters, simple sentence and a paragraph on simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to hobbies and abilities. Express gratitude, apology and welcome.

Course Name	Course Code	LTP	Credit	Semester
SUMMER INTERNSHIP	MBA350	0:0:18	9	2

COURSE OUTCOMES (CO)

CO 1	learn through direct, on-the-job experience working with successful professionals and experts in the field
CO 2	Develop intellectual ability, professional judgment and decision-making ability, inter-disciplinary approach, skills for data handling, ability in written and oral presentation, sense of responsibility etc.

Course Name	Course Code	LTP	Credit	Semester
Entrepreneurship and New Venture	MBA353	2:1:0	3	2

COURSE OUTCOMES (CO)

CO 1	Have the ability to discern distinct entrepreneurial traits.
CO 2	Know the parameters to assess opportunities and constraints for new business ideas.
CO 3	Understand the systematic process to select and screen a business idea.
CO 4	Explore entrepreneurial leadership and management style.

Course Name	Course Code	LTP	Credit	Semester
AANANDAM-III	AND003	0:0:0	3	2

COURSE OUTCOMES (CO)

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
POST - HARVEST MANAGEMENT	MBA311	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	To familiarize students with the current commercial methods used to harvest, pack, transport and market fresh horticultural crops grown in India, with emphasis on maintaining product quality and safety.
CO 2	Understand technologies of post-harvest technology and its role in providing better quality produce to the consumer.
CO 3	Understand importance of prevention of losses.

CO 4	An understanding will be developed concerning the interactions between the biological crop system post-harvest, the surrounding environment and the influencing technical factors.
-------------	--

Course Name	Course Code	LTP	Credit	Semester
AGRICULTURAL INPUT MARKETING	MBA312	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Enable students to gain knowledge on agricultural input marketing, challenges and prospects for improving agricultural marketing system.
CO 2	Provides an incisive analysis on agricultural input and output marketing with particular emphasis on marketing functions.
CO 3	To understand efficient marketing and the role of government and public sectors in marketing.
CO 4	To Understand, define and explain Competition in the Agri- input market place

Course Name	Course Code	LTP	Credit	Semester
RURAL MARKETING	MBA313	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand how marketing for industrial good is different from the traditional marketing and marketing in rural India.
CO 2	Learning from the success stories and failures in rural Indian Marketing

Course Name	Course Code	LTP	Credit	Semester
Social Banking and Microfinance	MBA380	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	To understand the concept of microfinance and how microfinance institutions work, including the operational aspects of an SHG/MFI.
CO 2	Learning concepts of financial literacy.

Course Name	Course Code	LTP	Credit	Semester
AGRI BUSINESS AND RURAL ENVIRONMENT	MBA383	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	To provide a learning exposure to students about the environment where Agri Business is conducted.
CO 2	To enable students to understand the fundamentals of management with reference to agribusiness.
CO 3	To enable student to understand policy environment, public - private policy domains, Agri sub sector analysis.
CO 4	Demonstrate an ability to apply economic principles to problems of farms, ranches, and other institutions in the food and fibre industries.

Course Name	Course Code	LTP	Credit	Semester
COST AND MANAGEMENT ACCOUNTING	MBA318	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Prepare various costing schedules where an analysis of cost classification, behaviour, and type is completed
CO 2	Critically analyze and provide recommendations to improve the operations of organizations through the application of management accounting techniques;
CO 3	Analyze cost-volume-profit techniques to determine optimal managerial decision
CO 4	Prepare analyses of various special decisions, using relevant costing and benefits.

Course Name	Course Code	LTP	Credit	Semester
LARGE SCALE INVESTMENT	MBA319	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Appreciate the strategic importance of capital expenditure projects;
CO 2	Apply complex valuation tools like Staged valuation and Social Appraisal;
CO 3	Analyze how risk management affects project value and develop a framework of strategies for managing various kinds of project risks;
CO 4	Analyze how project structuring help in creating higher value of projects;
CO 5	Analyzes various financing structures and the role of debt-based governance systems; and
CO 6	Critically evaluate various financing options to select the most optimal financing mix

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL FINANCE	MBA320	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Develop an understanding of International and Indian Monetary system
CO 2	Understand the functioning of International financial Markets, and foreign exchange markets
CO 3	Understand the instruments traded in the International Financial Markets
CO 4	Understand the concepts of FDI, FII, and FPI
CO 5	Understand the determinants of Exchange Rates
CO 6	Analyse the effect and understand hedging techniques for risk associated dealing in foreign currency
CO 7	Understand the financing and trading in foreign exchange and international financial market

Course Name	Course Code	LTP	Credit	Semester
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT	MBA322	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Know about the common stock, the stock market, stock options, and approaches to investing in the stock market and building stock portfolios. Particular emphasis is given to three competing approaches to stock investment: Fundamental analysis, technical analysis and efficient market analysis.
CO 2	Understand the portfolio theory and study various methods of modelling the risk associated with stock investment such as the capital asset pricing model and arbitrage pricing theory.
CO 3	Apply stock and option valuation models in portfolio management.

Course Name	Course Code	LTP	Credit	Semester
Fixed Income Investment	MBA379	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	To provide students with a background in fixed income securities.
CO 2	The student should possess the ability to demonstrate a thorough working knowledge of the analysis of fixed income securities, including basic characteristics of bonds in alternative sectors, valuation tools, and the factors that influence bond yields.
CO 3	The student should also be able to estimate risk and returns for fixed income investments, analyze fixed income securities with unique features, and value fixed income investments with embedded options.

Course Name	Course Code	LTP	Credit	Semester
Social Banking and Microfinance	MBA380	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand the concept and principal of social banking and microfinance;
CO 2	Identify issues that hinder the success of microfinance in India and across the developing countries;
CO 3	Analyze the forces of demand and supply and price mechanism in the credit market place.
CO 4	Analyze the output and cost of financing the activities and small start-up in short and long run.
CO 5	Understand the dynamics of group lending and how to evaluate the outcome of the programme intervention.

Course Name	Course Code	LTP	Credit	Semester
INDUSTRIAL RELATIONS AND LABOUR LAWS	MBA324	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Students will learn the main provisions of labour standards, concepts, institutions and approaches to industrial relations and collective bargaining.
CO 2	Will develop skills of dealing with unions, negotiating collective agreements and to identify approaches to promotion of sound labour management relations.

Course Name	Course Code	LTP	Credit	Semester
PERFORMANCE AND COMPETENCY MANAGEMENT	MBA325	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Develop an understanding of Performance and competency management and how it applies in the organisations.
CO 2	Understand and analyse the process of performance appraisal.
CO 3	Understand and analyse the competency management framework by studying different model
CO 4	Apply Competency mapping as a performance management tool

Course Name	Course Code	LTP	Credit	Semester
STRATEGIC HUMAN RESOURCE MANAGEMENT	MBA326	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Develop an understanding of strategic management and describe the various methods and techniques of strategic choice.
CO 2	Recognize strategic contribution of HRM and examine the strategic significance of HRM.
CO 3	Demonstrate the ability to apply the HRM concepts within a strategic dimension.
CO 4	Recognize the integrative role of business strategies and HR strategies and apply them to take business decisions.
CO 5	Examine the performance of business through various HR strategic models.
CO 6	Identify and analyse the future trends in strategic HRM approaches.
CO 7	Illustrate the concept of competitive advantage applied to human resources.

Course Name	Course Code	LTP	Credit	Semester
HR AUDIT AND HR INFORMATION SYSTEMS	MBA329	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	To create an awareness among managers of recent developments in Human Resource Audit and Human Resource Information Systems (HRIS) in an organization.
-------------	--

Course Name	Course Code	LTP	Credit	Semester
GENERAL HUMAN PSYCHOLOGY	MBA377	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	the students will understand the basic concepts of individual psychology from affective, behavioural and cognitive perspectives.
-------------	--

Course Name	Course Code	LTP	Credit	Semester
COMPENSATION AND REWARD MANAGEMENT	MBA378	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	To understand basic compensation concepts and the context of compensation practice
CO 2	Recognize how pay decisions help the organization achieve a competitive advantage.
CO 3	Analyse, integrate, and apply the knowledge to solve compensation related problems in organizations.

Course Name	Course Code	LTP	Credit	Semester
Recruitment, Selection, Training & Development	MBA390	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Apply training and development concepts in organizational learning situations;
CO 2	Apply recruitment and selection concepts and its impact on organizational performance;
CO 3	Analyze organizational learning priorities and evaluate how they translate to training, development
CO 4	Analyze and evaluate individual and organizational performance as a result of performance-driven training and development programs;

Course Name	Course Code	LTP	Credit	Semester
International Finance	MBA320	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand the mechanism of and concepts related to international monetary system, International financial Markets, and foreign exchange markets
CO 2	Analyse the determination of Exchange Rates in International financial markets
CO 3	Understand the financing and trading activities and instruments in foreign exchange and international financial market
CO 4	Understand and analyse the effect of hedging techniques for risk associated dealing in foreign currency

Course Name	Course Code	LTP	Credit	Semester
EXPORT IMPORT DOCUMENTATION AND LOGISTICS	MBA336	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Identify the framework of export and import documentation and recognize the various documentations, government departments, private functionaries involved to enable the export manager to develop a systematic methodology to handle export.
CO 2	Assess the government policies and issues related export and import.
CO 3	Evaluate and justify the various documents for processing export and import orders as well as the legal implications in the area of exports and import orders and be able to critically examine the FTP framework

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL ECONOMICS AND POLICY	MBA340	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Learn the significance of International Trade & Globalization;
CO 2	Understand the International Economic Indicators & Terminologies; and Exposure to World Economies, Transformations & Emerging markets;
CO 3	Understand & cope with Global Changes in Business scenario; Understanding the role of Govt., International Institutions & Trade Policies

Course Name	Course Code	LTP	Credit	Semester
WTO AND INTERNATIONAL REGULATORY ENVIRONMENT	MBA371	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	The students will understand the global, economic, political and legal environment prevalent in international trade.
CO 2	Learn the international norms and about regulatory bodies for enhancing global trade.
CO 3	The students will be able to analyze the various nuances associated with international trade.

Course Name	Course Code	LTP	Credit	Semester
International Business Strategy	MBA372	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Students will understand theory and principles of strategic management with a wider perspective towards 'Global Strategic Thinking'
-------------	---

Course Name	Course Code	LTP	Credit	Semester
GROWTH PROSPECTS OF THRUST AREAS OF INDIAN EXPORTS	MBA373	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	The student understanding the current scenario of Indian trade and role of government policies in export promotion.
CO 2	Identify the key areas/ sectors of trade potential
CO 3	Analyse thrust areas for growth and markets for these trust areas and
CO 4	Suggest initiatives required by exporters and policy support from government to further export performance

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL CROSSCULTURAL MANAGEMENT	MBA391	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Recognize the Importance of Cross Cultural Differences in Conducting Global Business.
CO 2	Compare the Management Practices in Various Economies.
CO 3	Demonstrate the Skill of International Business Negotiations.
CO 4	Develop an understanding of various cultures across the globe to identify the differences that occur due to cultural differences .
CO 5	Demonstrate the ability to apply the cross cultural business/leadership issues with the HR strategy
CO 6	Recognize the integrative role of culture & business strategies and apply them to take business decisions

Course Name	Course Code	LTP	Credit	Semester
RURAL MARKETING	MBA313	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	The students will understand the growing significance of rural marketing.
CO 2	Learn the emerging trends in rural marketing and points to a steep learning curve for companies eyeing rural markets in India.
CO 3	Understand the peculiarities of the rural customers in India and will be prepared to face the future challenges of rural India.

Course Name	Course Code	LTP	Credit	Semester
CONSUMER BEHAVIOUR	MBA360	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand, explain and apply the key terms, definitions, and concepts used in the study of consumer behaviour.
CO 2	Demonstrate how as a marketer you can use your knowledge of consumer behaviour concepts to develop better marketing programs and strategies to influence those behaviours.
CO 3	Critically evaluate the effectiveness of various advertisement and promotions and their attempts to influence the behaviours of individuals.
CO 4	Explore the trends in the field of consumer behaviour and apply them to the marketing of an actual product or service.

Course Name	Course Code	LTP	Credit	Semester
PRODUCT AND BRAND MANAGEMENT	MBA361	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Demonstrate solid knowledge and good understanding of the process of building, developing and protecting brands representing products/services
CO 2	Develop a framework to identify and establish brand positioning and values to build customer based brand equity
CO 3	Plan and implement brand marketing programs through integrated marketing communications and brand associations to build brand equity
CO 4	Evaluate how a brand equity management system can capture customer mindset and enhance market performance through sources and outcomes of brand equity
CO 5	Design specific strategies that focus around extending, revitalizing and reinforcing existing brands to retain brand resonance (i.e. loyalty, attachment, community and engagement)

Course Name	Course Code	LTP	Credit	Semester
ADVERTISING AND SALES PROMOTION	MBA362	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Identify and relate the problems to the field of adverting and sales promotion if any.
CO 2	Investigate the root cause for the ineffectiveness of the campaign.
CO 3	Develop efficient and effective plans to run the campaigns
CO 4	Evaluate the steps taken and be in a position to provide recommendations

Course Name	Course Code	LTP	Credit	Semester
ADVERTISING AND SALES PROMOTION	MBA374	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Identify and relate the problems to the field of advertising and sales promotion if any.
CO 2	Investigate the root cause for the ineffectiveness of the campaign.
CO 3	Develop efficient and effective plans to run the campaigns
CO 4	Evaluate the steps taken and be in a position to provide recommendations.

Course Name	Course Code	LTP	Credit	Semester
RETAIL AND MALL MANAGEMENT	MBA375	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Develop fundamental competencies in retail and mall management.
CO 2	Students will understand how to start their own entrepreneurial retail operation.
CO 3	Familiarize students with emergence of malls as a new format of market with emphasis on mall management principles and practices.

Course Name	Course Code	LTP	Credit	Semester
DIGITAL MARKETING	MBA376	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	To familiarize students with key aspects of digital marketing.
CO 2	Develop knowledge in digital marketing domain and help students to develop an understanding of the framework within online marketing businesses and its operations.

Course Name	Course Code	LTP	Credit	Semester
SALES MANAGEMENT	MBA392	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand fundamental concepts and principles of Sales and Distribution Management.
CO 2	Develop prospecting lists, sales call plans, call reports and make effective sales presentations.
CO 3	Develop sales forecasts & budgets, design sales territories, quota and sales force structure.
CO 4	Deliver sales training, motivate and evaluate a sales force.
CO 5	Design and control channels for domestic as well as international markets.

Course Name	Course Code	LTP	Credit	Semester
E-Commerce and Online Business Model	MBA331	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Demonstrate an understanding of the foundations and importance of E-commerce.
CO 2	Identify the major electronic payment issues and options. Analyze the impact of E-commerce on business models and strategy
CO 3	Discuss security issues and explain procedures used to protect against security threats
CO 4	Aware about the automation of business through electronic media and different technologies.
CO 5	To help the students with a view to emulate, entrepreneurial ventures in e-commerce and m-commerce.

Course Name	Course Code	LTP	Credit	Semester
Digital Marketing Strategies	MBA332	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Evaluate and apply key concepts related to digital marketing including consumer behaviour, online marketing communications, and social media marketing.
CO 2	Critically assess role that digital marketing can play in business strategy.
CO 3	Plan and compose tactical marketing decisions as a group considering effective product, pricing, distribution and promotion decisions as necessary to meet the needs of a client brief.

Course Name	Course Code	LTP	Credit	Semester
Digital Branding and Engagement	MBA333	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Examine how marketing, operations, and human resources interact in real-time delivery.
CO 2	Demonstrate cognitive knowledge of the skills needed to do online research and market research, as well as discover, evaluate, and choose digital market prospects.
CO 3	Using applicable marketing theories and frameworks, explain emerging trends in digital marketing and critically evaluate the usage of digital marketing and engagement tools.
CO 4	Research and assess difficulties related to adjusting to globalised marketplaces that are continually evolving and becoming increasingly networked.
CO 5	Examine the traditional marketing mix in light of a growing and diverse set of digital strategies and approaches.

Course Name	Course Code	LTP	Credit	Semester
Digital Marketing Analytics	MBA334	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Describe and identify different concepts of Digital Marketing Analytics
CO 2	Recognize and identify various strategies to take advantage in market
CO 3	Analyze and Implement the various concepts
CO 4	Use critical thinking to analyse management challenges through learning and study, individually or in a group.

Course Name	Course Code	LTP	Credit	Semester
AI Technologies	MBA385	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understanding the basic principles, techniques, and applications of Artificial Intelligence.
CO 2	understanding of the basic areas of artificial intelligence search, knowledge representation, learning and their applications in design and implementation of intelligent agents for a variety of tasks in analysis, design, and problem-solving.

Course Name	Course Code	LTP	Credit	Semester
Big Data Analytics	MBA386	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand the fundamentals of Big Data and its Applications in various Domains.
CO 2	Conceptualize and Incorporate the Technologies behind Big Data.
CO 3	Understand HDFS File Structure, Map Reduce Framework, the architectures related to them and to use them to solve complex problems.
CO 4	Integrate R with Hadoop and solve analytical problems.
CO 5	Understand and Use Hive/Hbase shell pertaining to relational data handling under Hadoop.

Course Name	Course Code	LTP	Credit	Semester
Business process Automation	MBA387	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Learn how to improve productivity in your organization by automating some of your processes.
CO 2	learn how to identify the processes that are fit for automation and develop a plan for it.

Course Name	Course Code	LTP	Credit	Semester
DATA SCIENCE PRODUCTS	MBA388	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	understand the data science, its properties and various related behaviors which they can use to develop their data science applications for solving real world problems.
-------------	--

Course Name	Course Code	LTP	Credit	Semester
BUSINESS COMMUNICATION - III	BSC311	1:0:0	1	3

COURSE OUTCOMES (CO)

CO 1	Demonstrate the ability to analyse a problem and devise a solution in a group.
CO 2	Construct and showcase their communication skills in a creative manner. 3. Become more expressive in their body language.
CO 3	Become more expressive in their body language.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - III (LEADING THROUGH TEAMS)	BSS311	1:0:0	1	3

COURSE OUTCOMES (CO)

CO 1	Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
CO 2	Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
CO 3	Recognize different types of human rights and its importance.
CO 4	Identify Indian values taught by different religions.
CO 5	Identify long term goals and recognize their talent, strengths and styles to achieve them

Course Name	Course Code	LTP	Credit	Semester
FRENCH - III	FLN311	2:0:0	2	3

COURSE OUTCOMES (CO)

CO 1	Identify and express in French vocabulary and grammar norms.
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in French

Course Name	Course Code	LTP	Credit	Semester
GERMAN - III	FLG311	2:0:0	2	3

COURSE OUTCOMES (CO)

CO 1	Students will be able to ask and tell time.
CO 2	Students will be able to frame sentences using Separable verb.
CO 3	Student will be able to write and speak sentences using modal verb
CO 4	Students will be able to frame sentences and speak using was/were/had .

Course Name	Course Code	LTP	Credit	Semester
SPANISH – III	FLS311	2:0:0	2	3

COURSE OUTCOMES (CO)

CO 1	Introduction of stem changing irregular verbs and Introduction of prepositions (Cerca de/ lejos de/ encima de etc.)
CO 2	Present continuous tense (Estar+ gerundio) And Introduction of third person verbs Gustar/Parecer/Encantar/ Doler (to like/ to seem like/ to enchant/ to hurt.) etc
CO 3	Interrogatives – How much/ How many
CO 4	Introduction of irregular verbs. And Immediate future plans (Ir a + verbo)

•

Course Name	Course Code	LTP	Credit	Semester
CHINESE – III	FLC311	2:0:0	2	3

COURSE OUTCOMES (CO)

CO 1	Read, write and speak approx. 100 New Chinese words and understand basic grammar points.
CO 2	Interpret words, phrases and sentences of day today conversation related to shopping, study and work etc.
CO 3	Write Chinese characters, simple sentence and a paragraph on simple topic like ‘Visit to a Place’, ‘This weekend’ etc.
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to description of size, quantity, shopping, communication, study, work and expression of simple feelings.

Course Name	Course Code	LTP	Credit	Semester
STRATEGIC MANAGEMENT	MBA451	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Compare and contrast different perspectives that characterize strategy making;
CO 2	Apply theories of strategic fit to the formulation of effective strategy for the dynamic environment; and
CO 3	Analyze futuristic challenges that firms face in maintaining future strategic plans.

Course Name	Course Code	LTP	Credit	Semester
DISSERTATION	MBA455	0:0:18	9	4

COURSE OUTCOMES (CO)

CO 1	Selecting a topic for investigation.
CO 2	Establishing the precise focus of your study by deciding on the aims and objectives of the dissertation, or formulating questions to be investigated. Consider very carefully what is worth investigating and its feasibility.
CO 3	Drawing up initial dissertation outlines considering the aims and objectives of the dissertation. Workout various stages of dissertation
CO 4	Devising a timetable to ensure that all stages of dissertation are completed in time. The timetable should include writing of the dissertation and regular meetings with your dissertation guide.

Course Name	Course Code	LTP	Credit	Semester
AGRICULTURAL RISK MANAGEMENT	MBA405	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Understanding of various types of risks faced by the farmers as well as agri-entrepreneurs both at the farm and community level and develop various strategies for its management.
-------------	--

Course Name	Course Code	LTP	Credit	Semester
FOOD PROCESSING MANAGEMENT	MBA406	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	understand upcoming Food Processing Industry and need and scope of effective decision-making for least cost combination of output with reference to purchase, storage and flow of materials in manufacturing and service organizations; cost reduction techniques in pre-purchase, purchase and post purchase systems; modern material planning and delivery systems, material handling and logistics systems.
-------------	--

Course Name	Course Code	LTP	Credit	Semester
MARKETING MODELS IN AGRIBUSINESS	MBA408	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	To understand the role of analytical techniques and computer models for enhancing marketing decision making in modern enterprises
CO 2	To improve skills in viewing marketing processes and relationships systematically and analytically
CO 3	To demonstrate the value of marketing models in real managerial contexts
CO 4	To apply the modeling techniques to real marketing decision problems

Course Name	Course Code	LTP	Credit	Semester
AGRICULTURE MARKETING MANAGEMENT	MBA409	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Understand the methods and processes of marketing agricultural products in national markets along with trends of globalization.
CO 2	Understand the basics of marketing management.

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL ENGINEERING	MBA414	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Understand Financial Risk Management
CO 2	To identify major techniques of risk management
CO 3	To acquaint with alternative investments like hedge funds
CO 4	To enhance their knowledge related to recent trends and development in global financial market

Course Name	Course Code	LTP	Credit	Semester
STRATEGIC FINANCIAL MANAGEMENT	MBA472	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Learn traditional distinction between Strategy and Financial Management
CO 2	Develop an in-depth understanding, among the participants, of how to manage for value by enabling financial management to play a more proactive role in Strategic Management.
CO 3	Develop an appreciation of how advancements in theory of finance have made it converge more towards strategy.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIORAL FINANCE	MBA473	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Identify the common errors in information processing;
CO 2	Identify the main behavioural biases and heuristics and take them into account when advising a client;
CO 3	Understand the limits to arbitrage;
CO 4	Understand the formation and burst process of speculative bubbles; and
CO 5	Allocate assets in a portfolio according to Behavioural Portfolio Theory.

Course Name	Course Code	LTP	Credit	Semester
MANAGEMENT OF FINANCIAL INSTITUTIONS	MBA497	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Identify the common errors in information processing;
CO 2	Identify the main behavioural biases and heuristics and take them into account when advising a client;
CO 3	Understand the limits to arbitrage;
CO 4	Understand the formation and burst process of speculative bubbles; and
CO 5	Allocate assets in a portfolio according to Behavioural Portfolio Theory.

Course Name	Course Code	LTP	Credit	Semester
SOCIAL AND INDUSTRIAL PSYCHOLOGY	MBA419	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Students would be able to understand human behaviour in social and industrial settings
CO 2	Students would be able to comprehend the causes of behaviour as well as the methods of improvement by this course.

Course Name	Course Code	LTP	Credit	Semester
ORGANIZATIONAL STRUCTURE, DESIGN AND HR PLANNING	MBA420	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Develop an understanding of the nature, functioning and design of organization as social collectives .
CO 2	Develop theoretical & practical insights & problem solving capabilities for effectively managing the organizational processes.

Course Name	Course Code	LTP	Credit	Semester
GLOBAL HUMAN RESOURCE MANAGEMENT	MBA422	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Recognize the Importance of IHR in Conducting Global Business.
CO 2	Associate the Problems Involved in Managing Cross Cultural Issues with Various International Business Practices
CO 3	Compare and Appraise IHR Practices in Various Economies.
CO 4	Break-down HR Business Processes/Functions to Access the Need of Various IHR and Cross Cultural Management Interventions.

Course Name	Course Code	LTP	Credit	Semester
ORGANIZATIONAL CHANGE AND DEVELOPMENT	MBA496	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Recognize the Importance of various organization development interventions in an organization.
CO 2	Develop an understanding of change management and organization development.
CO 3	Associate the Problems Involved in Managing Change and Organization Development.
CO 4	Recognize & demonstrate the ability to apply the OD interventions facing various situations.
CO 5	Identify the challenges facing change implementation

Course Name	Course Code	LTP	Credit	Semester
GLOBAL OUTSOURCING: ISSUES AND PERSPECTIVES	MBA430	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Make strategic decisions related to outsourcing
CO 2	Apply theoretical models and frameworks to analyze various sourcing scenarios.
CO 3	Relate to and analyze full outsourcing lifecycle.
CO 4	understand the articulation between the benefits and risks of “outsourcing” and “insourcing”
CO 5	Gain competence in critical analysis and synthesis of articles published in leading academic journals

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL MARKETING	MBA431	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Identify the differences between marketing at home and marketing in an international environment.
CO 2	Adapt existing knowledge to satisfy international market entry requirements.
CO 3	Assess and contrast cultural, economic, political and legal differences between home and global markets and across potentially viable international markets. . Adapt existing marketing strategy to comply with international market conditions.
CO 4	Conduct international market segmentation, targeting and product positioning in target market. Decide on pricing, promotion, advertising, distribution, product and other relevant marketing factors that will allow for success in international markets and for stronger competitive positioning in the global marketplace.
CO 5	Develop a set of criteria to continuously monitor international marketing opportunities, to measure marketing success and to determine strategic adjustments.

Course Name	Course Code	LTP	Credit	Semester
FOREIGN TRADE POLICY	MBA433	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Learning the direction, composition & procedures of India’s Foreign Trade Policy
CO 2	Learn which Assistance, Promotion Schemes and Incentives exporters enjoy; knowing Import Tariffs & Customs duties

CO 3	Learning International Documentary & Govt. Regulatory compliances
-------------	---

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL BUSINESS & PRACTICES	MBA495	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Understand comprehensive overview of the role that international business plays in the global economy.
CO 2	understand the complexities, risks and opportunities of international business and provide a global perspective on international trade, including foreign investments, impact of financial markets, international marketing, and the operation of MNC's
CO 3	Learn business practices organizations adopt to tap global opportunities.

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL MARKETING	MBA431	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Identify the differences between marketing at home and marketing in an international environment.
CO 2	Adapt existing knowledge to satisfy international market entry requirements.
CO 3	Assess and contrast cultural, economic, political and legal differences between home and global markets and across potentially viable international markets. . Adapt existing marketing strategy to comply with international market conditions.
CO 4	Conduct international market segmentation, targeting and product positioning in target market. Decide on pricing, promotion, advertising, distribution, product and other relevant marketing factors that will allow for success in international markets and for stronger competitive positioning in the global marketplace.
CO 5	Develop a set of criteria to continuously monitor international marketing opportunities, to measure marketing success and to determine strategic adjustments.

CUSTOMER RELATIONSHIP MANAGEMENT	MBA463	2:1:0	3	4
---	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	Compare and contrast different perspectives that characterize the study of customer retention.
CO 2	Apply theories of customer relationship management to the formulation of effective marketing strategy.
CO 3	Recognize trends based on current research related to customer relationship management
CO 4	Analyze the challenges that might influence the formulation of effective marketing strategies

SUPPLY CHAIN MANAGEMENT	MBA471	2:1:0	3	4
------------------------------------	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	Identify the various components of supply chain
CO 2	Explain different strategic issues related with supply chain
CO 3	Identify and understand the role of information and information technology in supply chain.
CO 4	Analyze and Solve different managerial problems of supply chain.
CO 5	Compare the supply chain in Indian and global perspectives.

MARKETING OF SERVICES	MBA494	2:1:0	3	4
----------------------------------	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	familiarizing with the basic characteristics of services, their implications on design and delivery, and the ways to achieve sustainable competitive advantage by managing critical parameters.
-------------	---

Social Media Marketing	MBA441	2:1:0	3	4
-------------------------------	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	Describe and identify different concepts of Social Media Marketing
CO 2	Recognize and identify various strategies to take advantage in market
CO 3	Analyze and Implement the various concepts
CO 4	Use critical thinking to analyse management challenges through learning and study, individually or in a group.

CONTENT MARKETING	MBA442	2:1:0	3	4
--------------------------	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	Describe and identify different concepts of Content Marketing
CO 2	Recognize and identify various strategies to take advantage in market
CO 3	Analyze and Implement the various concepts
CO 4	Use critical thinking to analyse management challenges through learning and study, individually or in a group.

Consumer Behavior in Digital World	MBA443	2:1:0	3	4
---	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	Understanding Consumer Behaviour and the Emergence of Digital Native's Behavior
CO 2	Understanding Individual Consumer in Digital world

DATA SCIENCE WITH R	MBA452	2:1:0	3	4
----------------------------	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	understand the data science and various related techniques
CO 2	Develop data science applications for solving real world problems.

DATA VISUALIZATION	MBA453	2:1:0	3	4
---------------------------	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	Understanding of the key techniques and theory used in visualization, including data models, graphical perception and techniques for visual encoding and interaction.
-------------	---

BLOCKCHAIN TECHNOLOGIES AND APPLICATION	MBA454	2:1:0	3	4
--	---------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	To give students the understanding of emerging abstract models for Blockchain Technology and to familiarise with the functional/operational aspects of cryptocurrency eco-system.
-------------	---



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY BUSINESS SCHOOL (ABS)

Bachelor of Business Administration

Programme Code: BBA

12064

Duration – 3 Years Full Time

Programme Structure

BBA

Credit Summary Sheet for BBA Program							
Semester	CC	DE	VA	OE	NTCC	Aanandam	Total
1	18	0	4	0	0	2	24
2	18	0	4	3	0	2	27
3	22	3	4	3	0	2	34
4	15	3	4	3	0	2	27
5	12	6	4	3	0	2	27
6	15	6	0	0	0	0	21
Total	100	18	20	12	0	10	160

Program Specific Outcomes (PSOs)

The Bachelor of Business Administration Program has a strong practical focus. It provides work integrated learning opportunities and equips the student with the skills needed to enhance employability and/or entrepreneurial acumen. The Program is designed to encourage students to learn through corporate exposure, help students to integrate cross-domain knowledge, acquire and enhance skills and innovatively handle real world problems. The program will encourage students to take responsibility for self-learning directed towards holistic development, community engagement, and to morph into a globally competent citizen.

Program Outcomes	On completion of this program, the student should be able to
Demonstrate proficiency in management concepts	<ol style="list-style-type: none"> 1. Demonstrate understanding of various underlying concepts and theories 2. Analyze real world management issues for problem solving through cross-functional solutions.
Reflect professional attitude	<ol style="list-style-type: none"> 1. Understand and exhibit the nuances of being a professional 2. Communicate in a clear, concise and professional manner through various communication media using appropriate tools effectively. 3. Demonstrate work ethic, integrity, self-motivation and discipline 4. Exhibit Team work, leadership, and intrapreneurial abilities
Develop cognitive skills and encourage critical thinking	<ol style="list-style-type: none"> 1. Acquire familiarity with analytical and reflective thinking techniques to identify and analyse problems, develop viable solutions, and be able to make effective decisions. 2. Exhibit understanding of various tools and techniques to be able to locate, organize & process relevant data for deeper insights 3. Acquire appropriate levels of quantitative and numerical skills
Develop new understanding	<ol style="list-style-type: none"> 1. Be sensitized and equipped to continually upgrade learning through academic research and professional collaboration. 2. Identify, study and analyse relevant global factors that influence business decision-making
Exhibit ethically responsible decision-making behavior	<ol style="list-style-type: none"> 1. Understand and be sensitive to ethical, social and environmental concerns of business and its impact 2. Identify various stakeholders affected by ethical & social issues and consequences thereof and identify plausible solutions
Fostering Entrepreneurial Attitude	<ol style="list-style-type: none"> 1. Identify entrepreneurial tendencies necessary to implement innovative business ideas. 2. Generate ideas for new business plans
Professional development	<ol style="list-style-type: none"> 1. Develop an ability of active and empathetic listening. 2. Enhance existing and acquire new competencies for holistic personal development 3. Acquire local, national & global business knowledge. 4. Demonstrate social and emotional maturity.

AMITY BUSINESS SCHOOL (ABS)

Bachelor of Business Administration

Semester I						
Code	Course	Category	L	T	P/F W	Credit Units
BBA101	Management Foundations	CC	2	1	-	3
BBA102	Business Environment	CC	2	1	-	3
BBA103	Micro Economics for Business	CC	2	1	-	3
BBA104	Computers in Management	CC	2	-	2	3
BBA105	Financial Accounting	CC	2	1	-	3
BBA108	Readings in management	CC	2	-	4	3
AND001	Anandam-I	NTCC	0	0	0	2
BCS101	English	VA	1	-	-	1
BSS103	Behavioral Science – I (understanding Self for Effectiveness)	VA	1	-	-	1
FLN101 FLG101 FLS101 FLC101	Foreign Language – I French German Spanish Chinese	VA	2	0	0	2
Total Credits						24

AMITY BUSINESS SCHOOL (ABS)

Bachelor of Business Administration

Semester II						
Code	Course	Category	L	T	P/F W	Credit Units
BBA201	Macro Economics for Business	CC	2	1	-	3
BBA203	Organizational Behaviour	CC	2	1	-	3
BBA204	Analysis & Design of Business Systems	CC	2	-	2	3
BBA205	Business Statistics	CC	2	1	-	3
BBA265	Data Analytics	CC	1	-	4	3
BBA280	Management Accounting	CC	2	1	-	3
AND002	Anandam-II	NTCC	0	0	0	2
BCS201	English	VA	1	0	0	1
BSS203	Behavioral Science – II	VA	1	0	0	1
FLN201 FLG201 FLS201 FLC201	Foreign Language – II French German Spanish Chinese	VA	2	0	0	2
	Open Elective/ Minor Track -I	OE	3	0	0	3
Total Credits						27

AMITY BUSINESS SCHOOL (ABS)

Bachelor of Business Administration

Semester III						
Code	Course	Category	L	T	P/F W	Credit Units
BBA301	Operations Research	CC	2	1	-	3
BBA302	Financial Management – I	CC	2	1	-	3
BBA304	Marketing Management – I	CC	2	1	-	3
BBA371	Public Relations & Corporate Image	CC	2	1	-	3
BBA380	Public Finance	CC	2	1	-	3
BBA 382	Corporate Social Responsibilities	CC	-	2	4	3
EVS001	Environment Studies	CC	4	-	-	4
AND003	Anandam-III	NTCC	0	0	0	2
BCS301	Business Communication – I	VA	1	0	0	1
BSS303	Behavioral Science – III	VA	1	0	0	1
FLN301 FLG301 FLS301 FLC301	Foreign Language – III French German Spanish Chinese	VA	2	0	0	2
	Open Elective/ Minor Track-II	OE	3	0	0	3
Electives: Student has to select 1 courses from the list of Domain Electives						
BBA303	Management Information Systems	DE	2	-	2	3
BBA306	Business Laws	DE	2	1	-	3
BBA 383	Fintech and New Initiatives	DE	2	1	-	3
Total Credits						34

AMITY BUSINESS SCHOOL (ABS)

Bachelor of Business Administration

Semester IV						
Code	Course	Category	L	T	P/F W	Credit Units
BBA401	Financial Management – II	CC	2	1	-	3
BBA402	Marketing Management – II	CC	2	1	-	3
BBA403	Research Methodology & Report Preparation	CC	2	1	-	3
BBA406	Human Resource Management	CC	2	1	-	3
BBA 493	Business Modelling in Excel	CC	0	1	4	3
AND004	Anandam-IV	NTCC	0	0	0	2
BCS401	Business Communication – II	VA	1	0	0	1
BSS403	Behavioral Science – IV	VA	1	0	0	1
FLN401 FLG401 FLS401 FLC401	Foreign Language – IV French German Spanish Chinese	VA	2	0	0	2
	Open Elective/ Minor Track -III	OE	3	0	0	3
Electives: Student has to select 1 courses from the list of Domain Electives						
BBA405	E-Commerce	DE	2	-	2	3
BBA 494	Rural Marketing	DE	1	-	4	3
Total Credits						27

AMITY BUSINESS SCHOOL (ABS)

Bachelor of Business Administration

Semester V						
Code	Course	Category	L	T	P/F W	Credit Units
BBA501	Operations Management	CC	3	0	0	3
BBA596	Entrepreneurship Development	CC	3	0	0	3
BBA550	Summer Training (Evaluation)	NTCC	0	0	12	6
AND005	Anandam-V	NTCC	0	0	0	2
BCS501	Business Communication – III	VA	1	0	0	1
BSS503	Behavioral Science – V	VA	1	0	0	1
FLN501 FLG501 FLS501 FLC501	Foreign Language – V French German Spanish Chinese	VA	2	0	0	2
	Open Elective/ Minor Track -IV	OE	3	0	0	3
Electives: Student has to select 2 courses from the list of Domain Electives						
BBA502	Personal Financial Planning	DE	3	0	0	3
BBA503	Sales & Distribution Management	DE	3	0	0	3
BBA504	Consumer Behaviour	DE	3	0	0	3
BBA505	Service Marketing	DE	3	0	0	3
BBA506	International Marketing	DE	3	0	0	3
BBA507	Financial Services	DE	3	0	0	3
BBA508	Principles of Investment Management	DE	3	0	0	3
BBA509	Banking & Financial Institutions	DE	3	0	0	3
BBA510	Organizational Development & Change	DE	3	0	0	3
BBA511	Training & Development	DE	3	0	0	3
BBA512	International Human Resource Management	DE	3	0	0	3
BBA 513	Basics and Strategies of Digital Marketing	DE	3	0	0	3
BBA592	Analytical Skill Building	DE	0	2	2	3
BBA594	Management of Domestic and Foreign Exchange Market-I	DE	2	1	0	3
BBA595	Business Data Processing	DE	2	0	2	3
Total Credits						27

AMITY BUSINESS SCHOOL (ABS)

Bachelor of Business Administration

Semester VI						
Code	Course	Category	L	T	P/FW	Credit Units
BBA601	Business Policy & Strategic Management	CC	3	0	0	3
BBA604	International Business Management	CC	3	0	0	3
BBA655	Dissertation	NTCC	0	0	12	9
Electives: Student has to select 2 courses from the list of Domain Electives						
BBA605	Brand Management	DE	3	0	0	3
BBA606	Advertising & Sales Promotion	DE	3	0	0	3
BBA607	Retail Management	DE	3	0	0	3
BBA608	Corporate Tax Planning	DE	3	0	0	3
BBA609	Financial Derivatives	DE	3	0	0	3
BBA610	Advanced Corporate Finance	DE	3	0	0	3
BBA612	Industrial Relations & Labour Law	DE	3	0	0	3
BBA613	Performance Management System	DE	3	0	0	3
BBA614	Compensation & Reward Management	DE	3	0	0	3
BBA615	Management of Domestic and Foreign Exchange Market-II	DE	2	1	0	3
BBA616	Social Media Marketing	DE	2	1	0	3
Total Credits						21

COURSE OUTCOMES

Course Name	Course Code	LTP	Credit	Semester
MANAGEMENT FOUNDATIONS	BBA 101	2:1:0	3	1

COURSE OUTCOMES (CO)

CO 1	Describe the effective management skills needed to maximize individual and organizational productivity related to the internal and external environment and issues of ethics and social responsibility
CO 2	Identify and evaluate social responsibility and ethical issues involved in business situations and logically articulate own position on such issue
CO 3	Describe the effective management skills needed to maximize individual and organizational productivity related to the internal and external environment and issues of ethics and social responsibility

Course Name	Course Code	LTP	Credit	Semester
BUSINESS ENVIRONMENT	BBA 102	2:1:0	3	1

COURSE OUTCOMES (CO)

CO 1	Apprehend the concept, significance and changing dimensions of Business Environment
CO 2	Identify various types of Business Environment
CO 3	Make you familiar with some of the practical factors which impact on international business activities in differing political, legal and cultural environments.
CO 4	Alerts you to some of the practical factors which impact on international business activities in differing political, legal and cultural environments.

Course Name	Course Code	LTP	Credit	Semester
MICRO ECONOMICS FOR BUSINESS	BBA103	2:1:0	3	1

COURSE OUTCOMES (CO)

CO 1	The students will be able to know the various concepts of decision making
-------------	---

	(consumer & seller).
CO 2	The students will be able to relate concepts to activities and decisions made in market.
CO 3	Analyze the output and cost behaviour in short and long run.
CO 4	Identify nature and intensity of competition in different types of market Introduction and historical information on Microorganisms and their use in different industries

Course Name	Course Code	LTP	Credit	Semester
COMPUTERS IN MANAGEMENT	BBA 104	2:0:2	3	1

COURSE OUTCOMES (CO)

CO 1	Identify business situations where IT techniques can appropriately use; and Understand the fundamentals of compute& seller).
CO 2	Describe and interpret the different applications of Computer.
CO 3	Relate the use of DBMS, E-commerce and ERP in management.
CO 4	Recognize the security and privacy issues during the E-payment.
CO 5	Use critical thinking to analyse IT tools and their management challenges through learning and study, individually or in a group.

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL ACCOUNTING	BBA 105	2:1:0	3	1

COURSE OUTCOMES (CO)

CO 1	State the uses and users of accounting information.
CO 2	Explain and apply accounting concepts, principles and convention.
CO 3	Record basic accounting transactions and prepare annual financial statement.
CO 4	Analyse, interpret and communicate the information contained in basic financial statements and explain the limitations of such statement.

Course Name	Course Code	LTP	Credit	Semester
READINGS IN MANAGEMENT	BBA 108	2:1:0	3	1

COURSE OUTCOMES (CO)

CO 1	Describe the various concepts used to analysis.
CO 2	Able to write the analysis.
CO 3	Present analysis of Industries and companies in a professional, logical, clear and coherent way.

Course Name	Course Code	LTP	Credit	Semester
ANANDAM	AND001	0:0:04	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
English	BCS 101	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Identify the basic elements of grammar required for good and effective communication.
CO 2	Interpret and discuss key ideas of grammar, diction and communication.

CO 3	Develop Creative & Literary Sensitivity in all communication.
CO 4	Design and create texts for a variety of purposes and audiences, evaluating and assessing the effectiveness of grammatical aspects.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - I (UNDERSTANDING SELF FOR EFFECTIVENESS)	BSS103	1:0:0	1	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Develop your understanding of who you are; what your core purpose is, what your values are and what limits your success
CO 2	Manage your emotions and feelings more effectively to have the impact that you need
CO 3	Develop the way that you regulate and control your emotions
CO 4	Learn about your behavioral preferences to become more self-awareness
CO5	Develop and build your emotional intelligence

Course Name	Course Code	LTP	Credit	Semester
FRENCH – I	FLN101	2:0:0	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
GERMAN – I	FLG101	2:0:0	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
SPANISH – I	FLS101	2:0:0	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Self introduction
CO 2	Possessions.
CO 3	Family/friend description with verbs like SER/ESTAR/TENER/HAY
CO 4	Regular AR/ER/IR ending verbs conjugations
CO5	Interrogative words

Course Name	Course Code	LTP	Credit	Semester
CHINESE – I	FLC101	2:0:0	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Read, write and speak approx. 50 new Chinese words and understand basic grammar points
-------------	---

CO 2	Interpret words, phrases and sentences of day today conversation related to greeting farewell and personal information like name age, residence, family etc
CO 3	Write Chinese characters, simple sentence and a paragraph on Self Introduction
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to greeting, farewell and personal information like name age, residence family etc.

Course Name	Course Code	LTP	Credit	Semester
MACRO ECONOMICS FOR BUSINESS	BBA201	2:1:0	3	2

COURSE OUTCOMES (CO)

CO 1	1. Explain the concepts of gross domestic product, inflation and unemployment, and how they are measured.
CO 2	Explain the circular flow model and use the concepts of aggregate demand and aggregate supply to analyze the response of the economy to disturbances
CO 3	Describe the determinants of the demand for money, the supply of money and interest rates and the role of financial institutions in the economy.
CO 4	Define fiscal and monetary policies and how these affect the economy.
CO 5	Identify the causes of disequilibrium in balance of payment (BoP) and how to correct it.

Course Name	Course Code	LTP	Credit	Semester
ORGANISATIONAL BEHAVIOUR	BBA203	2:1:0	3	2

COURSE OUTCOMES (CO)

CO 1	Develop an understanding of key Organizational Behaviour concepts and how they apply to the world of work.
CO 2	Understand and Analyse individual (self and others) and group behaviour including their respective defining elements.
CO 3	Understand the concepts of power and motivation, and apply them to earn the commitment
CO 4	Improve team skills and gain an appreciation of team dynamics
CO 5	Analyse and interpret the impact of organizational culture on organizations.
CO 6	Understand key factors in implementing change.
CO 7	Understand, improve and exhibit communication and interpersonal skills

Course Name	Course Code	LTP	Credit	Semester
ANALYSIS AND DESIGN OF BUSINESS SYSTEMS	BBA204	2:0:1	3	2

COURSE OUTCOMES (CO)

CO 1	Describe the various levels of system development life cycle.
CO 2	Record the current working of any organization and relate it with the different situation in any other organization.
CO 3	Analyse how information is recorded and kept at different levels in the organization.
CO 4	Interpret how to use Database Management System and Normalization to solve data related business problems.
CO 5	Illustrate the impact of Database Management system in organization.
CO 6	Demonstrate how to build a physical model of the database from the theoretical model and write database queries to answer business questions.
CO 7	Describe the role of Maintenance and Auditing while developing a new system or working in an existing system.
CO 8	Discuss the importance of security and what measures should be taken to ensure security of the system.

Course Name	Course Code	LTP	Credit	Semester
BUSINESS STATISTICS	BBA205	2:1:0	3	2

COURSE OUTCOMES (CO)

CO 1	Describe and identify different concepts of Statistics
CO 2	Recognize and identify various techniques of statistics to take analyse the business data.
CO 3	Assess various techniques of statistics which help in decision making
CO 4	Analyze and Implement the various techniques of statistics to make decisions.
CO 5	Use critical thinking to analyse management challenges through learning and study, individually or in a group.

Course Name	Course Code	LTP	Credit	Semester
DATA ANALYTICS	BBA265	1:0:4	3	2

COURSE OUTCOMES (CO)

CO 1	Demonstrate basic skills to work on MS Excel
CO 2	Present data with the help of various charts prepared using MS Excel and SPSS
CO 3	Carry out data analysis using MS Excel: data analysis tools, what if analysis and pivot table
CO 4	Carrying out statistical analysis using SPSS

Course Name	Course Code	LTP	Credit	Semester
MANAGEMENT ACCOUNTING	BBA 280		3	2

COURSE OUTCOMES (CO)

CO 1	Recognise and explain the role of management accounting in the planning, control and decision making activities of organisations;
CO 2	Acquire industrial skills of microbial culture, growth, and practice. Explain cost behaviour, its application to breakeven analysis and budgeting, and its importance in management decisions
CO 3	Apply alternative methods of calculating the costs of products, services and other cost objects and evaluate how the method used might affect management decisions and organisational performance; and Evaluate the need for management accounting information, systems and practices to change in response to changes in the operating and business environments.

Course Name	Course Code	LTP	Credit	Semester
ANANDAM	AND002	0:00:04	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society

CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
ENGLISH	BCS 201	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Participate in conversation and in small- and whole-group discussion
CO 2	Explore and use English as medium of communication in real life situation
CO 3	Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
CO 4	Identify features of a reading textbook and utilize them as needed
CO 5	Prepare and deliver organized presentations in small groups and to whole class
CO 6	Apply sentence mechanics and master spelling of high frequency words

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - II (PROBLEM SOLVING AND CREATIVE THINKING)	BSS203	1:0:0	1	2

A. COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Recognize the relation critical thinking with various mental processes
CO 2	Identify hinderance to problem solving processes
CO 3	Analyse the steps in problem-solving process
CO 4	Create plan of action applying creative thinking

Course Name	Course Code	LTP	Credit	Semester
FRENCH – II	FLN201	2:0:0	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
GERMAN – II	FLG201	2:0:0	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
SPANISH – II	FLS201	2:0:0	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in Spanish vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes

CO 3	Demonstrate comprehension of nuance between script and sound in Spanish
CO 4	Narrate clearly ideas, themes in simple standard Spanish

Course Name	Course Code	LTP	Credit	Semester
CHINESE – II	FLC201	2:0:0	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Read, write and speak approx. 100 New Chinese words and understand basic grammar points.
CO 2	Interpret words, phrases and sentences of day today conversation related to hobbies and abilities, gratitude, apology and welcome, time, weather and directions
CO 3	Write Chinese characters, simple sentence and a paragraph on simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to hobbies and abilities. Express gratitude, apology and welcome

Course Name	Course Code	LTP	Credit	Semester
OPERATIONS RESEARCH	BBA 301	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Identify the various techniques of Operation Research (OR).
CO 2	Explain different linear Programming Techniques
CO 3	Solve different managerial problems through OR techniques.
CO 4	Apply different OR techniques to decision making.

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL MANAGEMENT – I	BBA 302	3:0:0	3	3

COURSE OUTCOMES (CO)

CO 1	Recognize essential components of modern finance theory and its application in making crucial financial decisions;
CO 2	Illustrate the use of various tools of financial management in selecting the best among the various choices
CO 3	Demonstrate technical skills by solving specific problems helpful in evaluating different possibilities for competitive advantage
CO 4	Have the opportunity to apply problem solving and analytical skills to issues in financial management
CO 5	Use critical thinking to analyse management challenges through learning and study, individually or in a group.

Course Name	Course Code	LTP	Credit	Semester
MARKETING MANAGEMENT – I	BBA 304	3:0:0	3	3

COURSE OUTCOMES (CO)

CO 1	Develop understanding of core concepts of marketing and the role of marketing in business and society.
CO 2	Critically analyse and apply marketing strategies based on product, price, place and promotion objectives, under ethical consideration of different market situations.
CO 3	Develop the ability to analyze marketing problems and provide solutions based on a critical examination of marketing environment information
CO 4	Build understanding about how to analyze consumer behavior to make informed marketing decisions
CO 5	Understand the concept of Segmentation, Targeting and Positioning.

Course Name	Course Code	LTP	Credit	Semester
PUBLIC RELATIONS AND CORPORATE IMAGE	BBA 371	3:0:0	3	3

COURSE OUTCOMES (CO)

CO 1	Differentiate between advertising and publicity
CO 2	Develop and demonstrate strategic plans and planning methods in Advertising and Public Relation
CO 3	Discuss the concept and tools of Public Relations
CO 4	Discuss different aspects of brand building and its importance for an organisation
CO 5	Plan and execute ethically sound and socially responsible advertising strategies and public relations campaign

Course Name	Course Code	LTP	Credit	Semester
PUBLIC FINANCE	BBA 380	3:0:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand and analyse the role of Governments in the modern mixed economies.
CO 2	Evaluate characteristics of a good tax system, revenue and expenditures of the Government, fiscal deficit, fiscal policy and its impact on the economy.
CO 3	Appraise the impact of changes in fiscal policy on the economy, how initiatives and regulations in fiscal planning helps the economy.

Course Name	Course Code	LTP	Credit	Semester
CORPORATE SOCIAL RESPONSIBILITY	BBA 382	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Introduction and historical information on Microorganisms and their use in different industries
CO 2	Acquire industrial skills of microbial culture, growth, and practices
CO 3	Demonstrate the advanced application of Microbes in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
ENVIRONMENT STUDIES	EVS001	4:0:0	4	3

COURSE OUTCOMES (CO)

CO 1	Student learns about components of the environment			
CO 2	Student becomes aware of how the various components are interacting			
CO 3	Student is able to critically assess the harm that anthropogenic activity is doing to the environment			
CO 4	Student is able to apply various strategies to save the environment			
Course Name	Course Code	LTP	Credit	Semester
ANANDAM	AND003	0:0:04	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Business Communication-I	BCS 301	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Inculcating creative thinking skills
CO 2	Construct and showcase their communication skills in a creative manner.
CO 3	Comprehending and demonstrating ways of self-introduction
CO 4	Outlining and illustrating presentation Skills

Course Name	Course Code	LTP	Credit	Semester
Business Communication-I	BCS 301	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Inculcating creative thinking skills
CO 2	Construct and showcase their communication skills in a creative manner.
CO 3	Comprehending and demonstrating ways of self-introduction
CO 4	Outlining and illustrating presentation Skills

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - III	BSS 303	1:0:0	1	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to

CO 1	Demonstrate knowledge of strategies for developing a healthy interpersonal communication
CO 2	Recognize the importance of transactional analysis, script analysis
CO 3	Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management
CO 4	Demonstrate knowledge of strategies for developing a healthy interpersonal relationship

Course Name	Course Code	LTP	Credit	Semester
FRENCH - III	FLN301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in French

CO 4	Narrate clearly ideas, themes in simple standard French
------	---

Course Name	Course Code	LTP	Credit	Semester
GERMAN - III	FLG301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
SPANISH – III	BLS301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	To enable the students to talk about a place like, classroom, market, neighborhood and location of thing with the use of prepositions.
CO 2	To talk about one's likes/dislikes, how one is feeling, to express opinions, pain and illness
CO 3	Speaking about prices/currency/ market and quantity
CO 4	To discuss near future plans (Ir + a +inf.)
CO5	To talk about actions in process. (Present continuous form)

Course Name	Course Code	LTP	Credit	Semester
CHINESE – III	FLC301	02:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Read, write and speak approx. 50 New Chinese words and understand basic grammar points
CO 2	Interpret words, phrases and sentences of day today conversation related to size, quantity, shopping, communication, study, work and feelings
CO 3	Write Chinese characters, simple sentence and a paragraph on Self Introduction
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to size, quantity, shopping, communication, study, work and feelings

Course Name	Course Code	LTP	Credit	Semester
MANAGEMENT INFORMATION SYSTEMS	BBA 303	3:0:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand the fundamentals of Information System			
CO 2	Describe the concept of Management Information System;			
CO 3	Relate the use of DBMS, Data Warehousing and Data Mining in MIS and DSS;			
CO 4	Recognize the security issues and challenges in the digital firm;			
CO 5	To analyse planning and implementation of an information system in the organization through learning and solving case studies , individually or in a group;			
CO 6	Use critical thinking to identify key applications for digital age.			
Course Name	Course Code	LTP	Credit	Semester
BUSINESS LAW	BBA 306	3:0:0	3	3

COURSE OUTCOMES (CO)

CO 1	Understand the fundamentals of Information System;
CO 2	Describe the concept of Management Information System;
CO 3	Relate the use of DBMS, Data Warehousing and Data Mining in MIS and DSS;
CO 4	To analyse planning and implementation of an information system in the organization through learning and solving case studies , individually or in a group;
CO 5	Use critical thinking to identify key applications for digital age.

Course Name	Course Code	LTP	Credit	Semester
FINTECH AND NEW INITIATIVES	BBA 383	2:1:0	3	3

COURSE OUTCOMES (CO)

CO 1	Provides comprehensive overview of the FinTech space – technologies, the applications and the startup ecosystem
CO 2	Appreciate the role of technology in financial services and how it can provide solutions to key corporate challenges.
CO 3	3Develop an understanding of how FinTech is reconfiguring financial services business models and how they are different from the traditional business models
CO 4	Distinguish between financial and industrial innovation and the regulatory framework, the pros and cons of financial innovation,
CO 5	Understand the FinTech entrepreneurial landscape and the opportunities and challenges associated with startup cycle.

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL MANAGEMENT – II	BBA 401	3:0:0	3	4

COURSE OUTCOMES (CO)

CO 1	Comprehend both the theoretical and practical role of financial management in business corporations.
CO 2	Recognise the importance of risk in context of financial decision making.
CO 3	Identify of essential components of modern finance theory and its application in making financial decisions

Course Name	Course Code	LTP	Credit	Semester
MARKETING MANAGEMENT – II	BBA 402	3:0:0	3	4

COURSE OUTCOMES (CO)

CO 1	Define marketing and describe how marketing creates value.
CO 2	Describe the elements of the marketing mix.
CO 3	Explain how these elements interact to create value for consumers.

CO 4	Use different analytical frameworks to examine how managers solve business problems.
-------------	--

Course Name	Course Code	LTP	Credit	Semester
RESEARCH METHODOLOGY AND REPORT PREPARATION	BBA 403	3:0:0	3	4

COURSE OUTCOMES (CO)

CO 1	Discuss the e-Commerce process.
CO 2	Describe an example of system architecture for an e-Business.
CO 3	List the seven major elements of web design.
CO 4	Identify and explain fundamental web site tools including design tools, programming g tools, and data processing tools
CO 5	Identify the major electronic payment issues and options
CO 6	Discuss security issues and explain procedures used to protect against security threats
CO 7	Identify and discuss management issues underlying e-Commerce issues including organizational structure, strategic planning, and goal setting, and corporate social responsibility, international arena, changing market intermediaries, resource allocation and customer service.

Course Name	Course Code	LTP	Credit	Semester
HUMAN RESOURCE MANAGEMENT	BBA 406	3:0:0	3	4

COURSE OUTCOMES (CO)

CO 1	Introduction and historical information on Microorganisms and their use in different industries
CO 2	Acquire industrial skills of microbial culture, growth, and practices
CO 3	Demonstrate the advanced application of Microbes in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
--------------------	--------------------	------------	---------------	-----------------

BUSINESS MODELING IN EXCEL	BBA 493	3:0:0	3	4
-----------------------------------	----------------	-------	---	---

COURSE OUTCOMES (CO)

CO 1	Demonstrate basic skills to work on MS Excel
CO 2	Present data with the help of various charts prepared using MS Excel and SPSS
CO 3	Carry out data analysis using MS Excel: data analysis tools, what if analysis and pivot table
CO 4	Carrying out statistical analysis using SPSS

Course Name	Course Code	Credit	Semester
ANANDAM	AND004	2	4

COURSE OUTCOMES (CO)

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Business Communication-II	BCS 401	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Identify steps to professional communication
CO 2	Identify the key components of meeting, agendas and meeting minutes
CO 3	Understand the key skills and behaviors required to facilitate a group discussion/presentation

CO 4	Polish current affairs & rapport building

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - III	BSS 303	1:0:0	1	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to

CO 1	Demonstrate knowledge of strategies for developing a healthy interpersonal communication
CO 2	Recognize the importance of transactional analysis, script analysis
CO 3	Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management
CO 4	Demonstrate knowledge of strategies for developing a healthy interpersonal relationship

Course Name	Course Code	LTP	Credit	Semester
FRENCH - III	FLN301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
GERMAN - III	FLG301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
SPANISH – III	BLS301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	To enable the students to talk about a place like, classroom, market, neighborhood and location of thing with the use of prepositions.
CO 2	To talk about one's likes/dislikes, how one is feeling, to express opinions, pain and illness
CO 3	Speaking about prices/currency/ market and quantity
CO 4	To discuss near future plans (Ir + a +inf.)
CO5	To talk about actions in process. (Present continuous form)

Course Name	Course Code	LTP	Credit	Semester
CHINESE – III	FLC301	02:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Read, write and speak approx. 50 New Chinese words and understand basic grammar points
CO 2	Interpret words, phrases and sentences of day today conversation related to size, quantity, shopping, communication, study, work and feelings

CO 3	Write Chinese characters, simple sentence and a paragraph on Self Introduction
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to size, quantity, shopping, communication, study, work and feelings

Course Name	Course Code	LTP	Credit	Semester
E-COMMERCE	BBA 405	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	Discuss the e-Commerce process, models, importance, role and impact on business.
CO 2	Identify the major electronic payment issues and options.
CO 3	Discuss security issues and explain procedures used to protect against security threats.
CO 4	Identify and discuss management issues underlying e-Commerce issues including organizational structure, strategic planning, and goal setting, and corporate social responsibility, international arena, changing market intermediaries, resource allocation and customer service.

Course Name	Course Code	LTP	Credit	Semester
RURAL MARKETING	BBA 494	2:1:0	3	4

COURSE OUTCOMES (CO)

CO 1	To introduce rural market dynamics to the students
CO 2	Learn about rural behaviour and factor that differs from urban market

Course Name	Course Code	LTP	Credit	Semester
OPERATIONS MANAGEMENT	BBA 501	2:1:0	3	5

COURSE OUTCOMES (CO)

CO 1	Understand the basics of Production and Operations Management.
-------------	--

CO 2	Describe and interpret the difference between Production and Operations management.
CO 3	Describe and interpret the different methods and techniques of plant layout and plant
CO 4	Understand and analyse Demand Forecasting & Capacity Planning and Inventory management.
CO 5	Understand the importance and role of TQM, , BPR and ERP in operations management.

Course Name	Course Code	LTP	Credit	Semester
ENTREPRENEURSHIP DEVELOPMENT	BBA 596	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Have the ability to discern distinct entrepreneurial traits.
CO 2	Know the parameters to assess opportunities and constraints for new business ideas.
CO 3	Understand the systematic process to select and screen a business idea.
CO 4	Explore entrepreneurial leadership and management style.

Course Name	Course Code	LTP	Credit	Semester
SUMMER TRAINING (EVALUATION)	BBA 550		6	5

COURSE OUTCOMES (CO)

CO 1	Introducing students to real-life situations
CO 2	Encouraging to take up time bound multi-disciplinary and goal-oriented assignment
CO 3	Increasing participant's analytical thinking
CO 4	Equip participants to take decisions in critical and uncertain situations with limited data parameters

Course Name	Course Code	Credit	Semester
ANANDAM	AND005	2	5

COURSE OUTCOMES (CO)

The student should develop:

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS501	1:0:0	1	5

COURSE OUTCOMES (CO)

CO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CO 3	Demonstrate proficiency in the use of written communication.
CO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - V (INDIVIDUAL, SOCIETY AND NATION)	BCS501	1:0:0	1	5

COURSE OUTCOMES (CO)

CO 1	Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
CO 2	Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
CO 3	Recognize different types of human rights and its importance.
CO 4	Recognize different types of human rights and its importance.
CO 5	Identify Indian values taught by different religions.
CO 6	Identify long term goals and recognize their talent, strengths and styles to achieve them.

Course Name	Course Code	LTP	Credit	Semester
SPANISH – V	FLS501	20:0	2	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Introduction & Usage of stem changing irregular verbs in Future tense
CO 2	Introduction & Usage of stem changing irregular verbs in Gerundio tense
CO 3	Telephone Conversation
CO 4	Proposing a plan, rescheduling a plan and/or cancelling a plan
CO5	Comparatives
CO6	Introduction of Direct and Indirect Object Pronouns.
CO7	Usage and Familiarity with Preterito Perfecto

Course Name	Course Code	LTP	Credit	Semester
PERSONAL FINANCIAL PLANNING	BBA 502	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Demonstrate knowledge, understanding and competence with all areas of the strategic investment planning process.
CO 2	Understand fundamental and technical analysis.
CO 3	Discuss basic personal and corporate tax issues and planning opportunities with an understanding of personal vs. corporate tax rates.
CO 4	Discuss the difference between taxation of interest/dividends/capital property, deductions vs. expenses, and the general structure of a T1 tax return.
CO 5	Demonstrate employability skills and a commitment to professionalism

Course Name	Course Code	LTP	Credit	Semester
SALES AND DISTRIBUTION MANAGEMENT	BBA 503	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Course participants should be able to understand & appreciate the diverse variables affecting the sales & distribution function
CO 2	Course participants should be able to develop sales and distribution plans
CO 3	Course participants should be able to link distribution with other marketing variables

Course Name	Course Code	LTP	Credit	Semester
CONSUMER BEHAVIOUR	BBA 504	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Understand, explain, and apply the key terms, definitions, and concepts used in the study of consumer behaviour.
CO 2	Demonstrate how as a marketer you can use your knowledge of consumer behaviour concepts to develop better marketing programs and strategies to influence those behaviours.
CO 3	Critically evaluate the effectiveness of various advertisement and promotions and their

	attempts to influence the behaviours of individuals
CO 4	Explore the trends in the field of consumer behaviour and apply them to the marketing of an actual product or service.

Course Name	Course Code	LTP	Credit	Semester
SERVICE MARKETING	BBA 505	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Understand the Concept of Services and intangible products
CO 2	Discuss the relevance of the services Industry to Industry
CO 3	Examine the characteristics of the services industry and the modus operandi
CO 4	Analyse the role and relevance of Quality in Services
CO 5	Visualise future changes in the Services Industry

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL MARKETING	BBA 506	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Develop an understanding regarding concept of IHRM and application of different functions of Human Resource Management from International aspect.
CO 2	Understand the concept of strategic HRM and implementation of strategies in IHRM
CO 3	Evaluate and analyse best practices of IHRM in different countries and developing role and emerging trends of HRM in global arena

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL SERVICES	BBA 507	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Understand the various services offered and various risks faced by banks
CO 2	Understand the dynamic changes of the banking industry and the policy responses because of the recent crisis
CO 3	Have a practical understanding of the various distribution channels of insurance

	products for effective marketing.
CO 4	Have a practical understanding of regulations and be able to understand insurance operations both in life as well as general insurance.

Course Name	Course Code	LTP	Credit	Semester
PRINCIPLES OF INVESTMENT MANAGEMENT	BBA 508	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Understand different investment alternatives in the market and how securities are traded in the market
CO 2	Understand the general structure of various financial markets
CO 3	Measure risk and return and find the relationship between risk and return
CO 4	Understand the fundamental and technical analysis, portfolio and mutual funds.

Course Name	Course Code	LTP	Credit	Semester
BANKING & FINANCIAL INSTITUTIONS	BBA 509	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Determine the need of financial system and describe how and why financial system works.
CO 2	Have a practical understanding of various financial institutions and their functioning
CO 3	Understand money market, its different types and its functioning.

Course Name	Course Code	LTP	Credit	Semester
ORGANISATIONAL DEVELOPMENT AND CHANGE	BBA 510	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	To understand the nature of the developmental process in organizations.
CO 2	To comprehend the main derives and approaches of the change.
CO 3	To realize and apply the stages of the organizational development process.
CO 4	To equip students with knowledge & skills required for effective change and organizational development.
CO 5	To Provide students with knowledge of resistance to change and techniques of handing it.

Course Name	Course Code	LTP	Credit	Semester
TRAINING AND DEVELOPMENT	BBA 511	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Identify skills which are transferable from teaching to training
CO 2	identify and describe learning styles
CO 3	relate learning styles to activity types and tasks
CO 4	define motivation and relate it to training contexts

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL HUMAN RESOURCE MANAGEMENT	BBA 512	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Develop an understanding regarding concept of IHRM and application of different functions of Human Resource Management from International aspect.
CO 2	Understand the concept of strategic HRM and implementation of strategies in IHRM
CO 3	Evaluate and analyse best practices of IHRM in different countries and developing role and emerging trends of HRM in global arena

Course Name	Course Code	LTP	Credit	Semester
BASICS AND STRATEGIES OF DIGITAL MARKETING	BBA 513	2:1:0	3	5

COURSE OUTCOMES (CO)

CO 1	translate some of the key marketing and business models that will help to shape your digital marketing strategy
CO 2	describe online market presence, segmentation and the 4 Ps of marketing and their implications for digital marketing
CO 3	discuss the opportunities and risks of integrated digital marketing outline an approach to developing a digital marketing plan
CO 4	explain the key digital marketing activities needed for competitive success

Course Name	Course Code	LTP	Credit	Semester
ANALYTICAL SKILL BUILDING	BBA 592	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Recognising the importance of critical thinking in analysis
CO 2	Understanding the concept of analysis
CO 3	Identifying the different aspects of analysis
CO 4	Using the analytical process to arrive at a decision

Course Name	Course Code	LTP	Credit	Semester
MANAGEMENT OF DOMESTIC AND FOREIGN EXCHANGE MARKET-I	BBA594	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Analyzing the nature and functioning of foreign exchange markets, determination of exchange rates and their forecasting Explaining the foreign exchange risks and to identify risk management strategies
CO 2	Exploring the international sources of long term finance

CO 3	Understanding foreign exchange markets, international financial markets and their functions & needs
CO 4	Analyzing foreign exchange risks and risk management strategies

Course Name	Course Code	LTP	Credit	Semester
BUSINESS DATA PROCESSING	BBA 595	3:0:0	3	5

COURSE OUTCOMES (CO)

CO 1	Demonstrate data fetch from online data sharing WEB apis Compare the standard data formats for data sharing across software platforms
CO 2	Reflect on different data storage possibilities available for business data
CO 3	Explain and demonstrate knowledge of data processing, data storage and data retrieval using relational database structure and structured query language
CO 4	Demonstrate understanding for NoSQL databases
CO 5	Describe an understanding of complete end to end business data analysis process
CO 6	Apply analytical skills for implementation of business data processing using Business Intelligence and Reporting tools

Course Name	Course Code	LTP	Credit	Semester
BUSINESS POLICY AND STRATEGIC MANAGEMENT	BBA 601	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Develop an understanding of Performance management System and how it applies in the organisations.
CO 2	Understand and analyse the process of performance appraisal.
CO 3	Evaluate and analyse best practices of Performance management System in different organisations

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL BUSINESS MANAGEMENT	BBA 604	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Develop a clear understanding of the conceptual frameworks and definitions of specific terms that are integral to the international management literature.
CO 2	Attain a clear understanding of the various factors that help determine the appropriateness of different management strategies for different types of international ventures
CO 3	Analysis of various strategies required for entering different markets globally.
CO 4	Explore and evaluate different career opportunities, specific regional locations, and organizations where the students may seek to pursue an international business management career.

Course Name	Course Code	LTP	Credit	Semester
DISSERTATION	BBA 655	9	9	6

COURSE OUTCOMES (CO)

CO 1	In-depth understanding of academic theory and the preparation of high-quality research pertinent to the field of study
CO 2	Ability to select appropriate research methods and techniques suitable for the candidate's research field
CO 3	In-depth understanding the current state of the art in the individual research area, and the ability to appropriately employ methods and existing research results in the development of new knowledge, theories and presentation of research in the individual research area

Course Name	Course Code	LTP	Credit	Semester
BRAND MANAGEMENT	BBA 605	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Comprehend the key components of brand and related concepts involved in formulating both competitive and corporate strategies to enhance brand equity.
CO 2	Apply branding strategies, tools and techniques to business opportunities and problems
CO 3	Think strategically and confidently in making branding decisions.

CO 4	Critically apply practical skills in designing branding strategies, brand portfolio, brand elements, communications etc.
CO 5	Analyze different conditions that a firm should pursue a global branding strategy against portfolio of local brands.

Course Name	Course Code	LTP	Credit	Semester
ADVERTISING AND SALES PROMOTION	BBA 606	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Identify and relate the problems to the field of adverting and sales promotion if any.
CO 2	Investigate the root cause for the ineffectiveness of the campaign.
CO 3	Develop efficient and effective plans to run the campaigns
CO 4	Evaluate the steps taken and be in a position to provide recommendations.

Course Name	Course Code	LTP	Credit	Semester
RETAIL MANAGEMENT	BBA 607	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Understand the impact of retailing on the economy.
CO 2	Comprehend retailing's role in society and, conversely, society's impact on retailing
CO 3	See how retailing fits within the broader disciplines of business and marketing.
CO 4	Recognize and understand the operations-oriented policies, methods, and procedures used by successful retailers in today's global economy.
CO 5	Know the responsibilities of retail personnel in the numerous career positions available in the retail field.

Course Name	Course Code	LTP	Credit	Semester
CORPORATE TAX PLANNING	BBA 608	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	identify the rules imposed upon employers in relation to employee taxation;			
CO 2	explain and apply the system of corporation tax self assessment, capital gains and VAT			
CO 3	identify and evaluate the impact of international aspects on a company's taxation;			
CO 4	identify and evaluate the impact of different tax planning scenarios.			
Course Name	Course Code	LTP	Credit	Semester
FINANCIAL DERIVATIVES	BBA 609	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Comprehend both the theoretical concepts and practical mechanism of financial derivatives..
CO 2	Identify and analyse the financial risk and tools to mitigate it
CO 3	Understand and apply the risk management strategies using derivatives
CO 4	Understand and analyse the price mechanism and determinants for derivatives

Course Name	Course Code	LTP	Credit	Semester
ADVANCED CORPORATE FINANCE	BBA 610	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Taking charge of financial decisions with value-creating strategies Grounding operations in robust financial criteria and new business model
CO 2	Leading firms through growth and globalisation by tackling issues and building alliances
CO 3	Transforming digital finance to gain insight, boost productivity, and spot trends Maximising value by knowing and influencing key business drivers Mitigating risk by skillfully navigating capital markets

Course Name	Course Code	LTP	Credit	Semester
INDUSTRIAL RELATIONS AND LABOUR LAW	BB BBA 612	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Industrial Relations & Labour Laws Course Outcomes Students should able to elaborate the concept of Industrial Relations.
CO 2	The students should able to illustrate the role of trade union in the industrial setup.
CO 3	Students should able to outline the important causes & impact of industrial disputes.
CO 4	Students should able to elaborate Industrial Dispute settlement procedures.

Course Name	Course Code	LTP	Credit	Semester
PERFORMANCE MANAGEMENT SYSTEM	BBA 613	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Develop an understanding of Performance management System and how it applies in the organisations.
CO 2	Understand and analyse the process of performance appraisal
CO 3	Evaluate and analyse best practices of Performance management System in different organisations.

Course Name	Course Code	LTP	Credit	Semester
COMPENSATION AND REWARD MANAGEMENT	BBA 614	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Relate compensation management to behavioral theories and concepts and within the wider context of human resources management
CO 2	Describe the process and evaluate the implications of job evaluation
CO 3	Identify the internal and external environmental factors that have an impact on the pay structure

	of an organization
C4O 3	Demonstrate an understanding of the process of designing a pay structure taking account of the company environment

Course Name	Course Code	LTP	Credit	Semester
MANAGEMENT OF DOMESTIC AND FOREIGN EXCHANGE MARKETS -II	BBA615	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Introduce the environment of international finance
CO 2	analyze the nature and functioning of foreign exchange markets
CO 3	determination of exchange rates and their forecasting

Course Name	Course Code	LTP	Credit	Semester
SOCIAL MEDIA MARKETING	BBA 616	3:0:0	3	6

COURSE OUTCOMES (CO)

CO 1	Understand fundamental concepts and principles of Social Media Marketing. .
CO 2	Develop Social Media Marketing mix
CO 3	Decide appropriate Social Media Marketing Channels/Platforms
CO 4	Develop and Execute Social Media Marketing Campaigns.
CO 5	Evaluate Effectiveness of Social Media Marketing by applying relevant Social Media Analytics tools.



AMITY UNIVERSITY
R A J A S T H A N

AMITY BUSINESS SCHOOL

Bachelor of Commerce (Hons.)

Programme Code: BCH

12046

Duration – 3 Years Full Time

Programme Structure

Credit Summary

Years	Semester	No. of Total credit per semester	Cumulative Credits
1	I	26	26
	II	28	54
2	III	30	84
	IV	33	117
3	V	33	150
	VI	25	175

Program Specific Outcomes (PSOs)

The three-year B. Com. (Hons.) degree programme is aligned with Amity University's vision to provide contemporary education by offering job oriented courses along with imparting necessary knowledge in emerging areas of commerce. This programme prepares commerce graduates who can successfully handle various functions of accounting in SMEs and also participate in the modern financial world. It is designed to develop analytical ability to understand business problems with an effective and well organized professional approach. It also grooms students to develop a well-rounded personality for subsequent graduate studies and allow them to achieve professional success. At the honors level, students develop deeper understanding of various specialization domains of their choice.

Program Outcomes	On completion of this program, the student should be able to
Demonstrate proficiency in commerce concepts	<ol style="list-style-type: none"> 1. Demonstrate adequate knowledge & understanding of the concepts, principles and practices in various areas of commerce. 2. Analyze financial & accounting information presented in quantitative & qualitative forms; demonstrate accurate, full and complete explanations and implications of information. 3. Draw appropriate conclusions based on data analysis, while recognizing the limits of this analysis.
Reflect professional attitude	<ol style="list-style-type: none"> 1. Communicate effectively and professionally using a range of communication modes in various business contexts; be proficient in oral, written and meta-verbal communication. 2. Work productively, collaboratively and openly in diverse groups and across cultural boundaries by adopting appropriate roles, processes and Information & communication technologies. 3. Demonstrate understanding of teamwork principles, and empathy for internal / external customers & other stakeholders. 4. Be responsible for his/her continuous learning and create & implement plans to achieve desired learning goals and objectives.
Develop cognitive skills and encourage critical thinking	<ol style="list-style-type: none"> 1. Identify, extract, critically analyze and evaluate data from multiple sources and discover solutions for business challenges. 2. Draw conclusions using fundamental concepts, principles, and knowledge from multiple disciplines. 3. Acquire appropriate levels of quantitative and numerical skills.
Develop new understanding	<ol style="list-style-type: none"> 1. Participate in discussion and debate on various issues related to the environment of business & commerce. 2. Identify, study and analyze relevant global factors that influence business decision making.
Exhibit ethically responsible decision-making behavior	<ol style="list-style-type: none"> 1. Demonstrate the ability to recognize ethical issues associated with work and organizational decisions / actions. 2. Apply frameworks to deal effectively with ethical issues.

Fostering Entrepreneurial Attitude	<ol style="list-style-type: none">1. Identify entrepreneurial tendencies necessary to implement innovative business ideas.2. Generate ideas for new business plans.
Professional development	<ol style="list-style-type: none">1. Demonstrate knowledge & understanding of active and empathetic listening.2. Acquire local, national & global business knowledge.3. Demonstrate social and emotional maturity.

PROGRAMME STRUCTURE

AMITY BUSINESS SCHOOL (ABS)

Program Name: Bachelor of Commerce (Hons.)

FIRST SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P)/Field Work (FW) Hours per week	Total Credits
BCH181	Business Organization & Management	CC	3	1	0	4
BCH182	Corporate & Business Laws	CC	3	1	0	4
BCH180	Financial Accounting – I	CC	2	1	0	3
BCH103	Microeconomic Theory & Applications – I	CC	2	1	0	3
BCH120	Business Mathematics	CC	2	1	0	3
BCH132	Statistical Methods in Research	CC	2	0	2	3
AND001	ANANDAM-I	CC	0	0	0	2
BCS101	English	VA	1	-	-	1
BSS103	Behavioral Science – I	VA	1	-	-	1
	Foreign Language – I	VA	2	-	-	2
FLN101	French					
FLG101	German					
FLS101	Spanish					
FLC101	Chinese					
	TOTAL					26

AMITY BUSINESS SCHOOL (ABS)
Program Name: Bachelor of Commerce (Hons.)

SECOND SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P)/Field Work (FW) Hours per week	Total Credits
BCH282	Auditing & Assurance	CC	3	1	0	4
BCH280	Financial Accounting – II	CC	2	1	0	3
BCH281	Income Tax Law & Practice	CC	2	1	0	3
BCH202	Microeconomic Theory & Applications – II	CC	2	1	0	3
BCH224	Business Research Methods	CC	2	1	0	3
BCH215	Fundamentals of Computer Applications in Business	CC	2	1	0	3
AND002	ANANDAM-II	CC	0	0	0	2
	Open Elective/ Minor Track -I	OE	3	0	0	3
BCS201	English	VA	1	0	0	1
BSS203	Behavioral Science – II (Problem Solving and Creative Thinking)	VA	1	0	0	1
	Foreign Language – II	VA	2	0	0	2
FLN201	French					
FLG201	German					
FLS201	Spanish					
FLC201	Chinese					
	TOTAL					28

AMITY BUSINESS SCHOOL (ABS)
Program Name: Bachelor of Commerce (Hons.)

THIRD SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P)/Field Work (FW) Hours per week	Total Credits
BCH381	Financial Management	CC	4	0	0	4
BCH382	Financial Reporting-I	CC	3	1	0	4
BCH380	Cost & Management Accounting – I	CC	2	1	0	3
BCH384	Indirect Taxes & Amendments	CC	2	1	0	3
BCH362	Macro Economics Analysis-I	CC	2	1	0	3
EVS001	Environmental Studies	CC	4	0	0	4
AND003	ANANDAM-III	CC	0	0	0	2
	Open Elective/ Minor Track-II	OE	2	0	1	3
BCS301	Business Communication – I	VA	1	0	0	1
BSS303	Behavioral Science – III	VA	1	0	0	1
	Foreign Language – III	VA	2	0	0	2
FLN301	French					
FLG301	German					
FLS301	Spanish					
FLC301	Chinese					
	TOTAL					30

AMITY BUSINESS SCHOOL (ABS)
Program Name: Bachelor of Commerce (Hons.)

FOURTH SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P)/Field Work (FW) Hours per week	Total Credits
BCH481	Financial Reporting-II	CC	3	1	0	4
BCH482	Strategic Business Leader I	CC	3	1	0	4
BCH483	Strategic Business Reporting- I	CC	3	1	0	4
BCH480	Cost & Management Accounting – II	CC	2	1	0	3
BCH451	Macro Economics Analysis – II	CC	2	1	0	3
BCH 421	Data Analytics	CC	2	1	0	3
BCH422	Industry & Company Analysis	CC	2	1	0	3
AND004	ANANDAM-IV	CC	0	0	0	2
	Open Elective/ Minor Track -III	OE	2	1	0	3
BCS401	Business Communication – II	VA	1	0	0	1
BSS403	Behavioral Science-IV (Group Dynamics and Team Building)	VA	1	0	0	1
	Foreign Language – IV	VA	2	0	0	2
FLN401	French					
FLG401	German					
FLS401	Spanish					
FLC401	Chinese					
	TOTAL					33

AMITY BUSINESS SCHOOL (ABS)
Program Name: Bachelor of Commerce (Hons.)

FIFTH SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P)/Field Work (FW) Hours per week	Total Credits
BCH582	Strategic Business Leader II	CC	3	1	0	4
BCH583	Strategic Business Reporting- II	CC	3	1	0	4
BCH550	Summer Internship	CC	0	0	0	4
AND005	ANANDAM-V	CC	0	0	0	2
Domain Elective V: Choose any 4 courses from the following:						
BCH570	Corporate Accounting	DE	2	1	0	3
BCH505	Fundamentals of Investment	DE	2	1	0	3
BCH506	Financial Markets, Institutions & Financial Services	DE	2	1	0	3
BCH592	Personal Finance Management	DE	2	1	0	3
BCH595	Financial Statement Analysis	DE	2	1	0	3
BCH516	Corporate Tax Planning	DE	2	1	0	3
BCH509	International Business	DE	2	1	0	3
BCH518	Business Data Processing	DE	2	1	0	3
BCH590	Marketing Management	DE	2	1	0	3
BCH512	Human Resource Management	DE	2	1	0	3
BCH514	Industrial Relations & Labour Laws	DE	2	1	0	3
Domain Elective VI (ONLY FOR THE STUDENT WHO OPTED FOR ACCA): Choose any 2 courses from the following:						
BCH584	Advanced Financial Management-I	DE	5	1	0	6
BCH585	Advanced Performance Management-	DE	5	1	0	6
BCH586	Advanced Audit and Assurance- I	DE	5	1	0	6
	Open Elective/ Minor Track -IV	OE				3
BCS501	Business Communication – III	VA	1	0	0	1
BSS503	Behavioural Science – V	VA	1	0	0	1
	Foreign Language – V	VA	2	0	0	2
FLN501	French					
FLG501	German					
FLS501	Spanish					
FLC501	Chinese					
	TOTAL					33

AMITY BUSINESS SCHOOL (ABS)
Program Name: Bachelor of Commerce (Hons.)

SIXTH SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P)/Field Work (FW) Hours per week	Total Credits
BCH682	Strategic Business Leader III	CC	3	1	0	4
BCH679	Indian Economy	CC	2	1	0	3
BCH655	Dissertation	CC	0	0	0	6
Domain Elective VI: Choose any 4 courses from the following:						
BCH671	Entrepreneurship Development	DE	2	1	0	3
BCH672	Spreadsheet Modelling in Business	DE	2	1	0	3
BCH661	Regulation of Domestic and Foreign Exchange Markets	DE	2	1	0	3
BCH662	Venture Planning	DE	2	1	0	3
BCH663	Banking and Insurance	DE	2	1	0	3
BCH673	E-Commerce & its Applications	DE	2	1	0	3
BCH611	Advertising & Personal Selling	DE	2	1	0	3
BCH612	Service Marketing	DE	2	1	0	3
BCH674	Ethics & Governance	DE	2	1	0	3
BCH614	Compensation Management	DE	2	1	0	3
Domain Elective VI (ONLY FOR THE STUDENT WHO OPTED FOR ACCA): Choose any 2 courses from the following:						
BCH684	Advanced Financial Management-II	DE	5	1	0	6
BCH685	Advanced Performance Management- II	DE	5	1	0	6
BCH686	Advanced Audit and Assurance- II	DE	5	1	0	6
	TOTAL					25

COURSE OUTCOMES

Course Name	Course Code	LTP	Credit	Semester
BUSINESS ORGANIZATION AND MANAGEMENT / (AB-F1)	BCH181	3:01:0	4	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand business and identify various stakeholders
CO 2	Understand business and business management process and its sub-processes
CO 3	Understand the impact of external environment on the organization and identify various environmental forces and their impact on business
CO 4	Understand and identify the accounting and finance as a tool of management and control
CO 5	Understand HR management and its processes.
CO 6	Describe issues of ethics and social responsibility

Course Name	Course Code	LTP	Credit	Semester
CORPORATE AND BUSINESS LAWS – I / (LW-F4)	BCH182	3:01:0	4	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the Business Law
CO 2	Various important features of Business laws
CO 3	Details of Contracts, Sales of goods act, Negotiable Instruments, Company law

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL ACCOUNTING – I / (FA-I F3)	BCH180	2:01:0	3	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the purpose of financial accounting
CO 2	Comprehend the qualitative characteristics of financial statements
CO 3	Exhibit the use of double entry system in recording transaction
CO 4	Preparation of financial statements and the interpretation

Course Name	Course Code	LTP	Credit	Semester
MICROECONOMIC THEORY AND APPLICATIONS - I	BCH103	2:01:0	3	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Demonstrate adequate knowledge & understanding of the microeconomic concepts and theories,
CO 2	Analyse and apply the mechanics of demand and supply for Individuals and firms and the concept of elasticity as a measure of responsiveness to various variables
CO 3	Solve a consumer's utility maximization problem graphically; analyze the impact of changes in price and income on a consumer's decision via shifting income and substitution effects
CO 4	Describe the principle of rising marginal cost, its relation to average cost and other costs, and how costs for the firm differ in the short and long runs; and calculate & graphically illustrate the firm's average, marginal and total revenues; and where marginal revenue equals marginal costs

Course Name	Course Code	LTP	Credit	Semester
BUSINESS MATHEMATICS	BCH120	2:01:0	3	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Formulate problems in the language of sets and perform set operations, and will be able apply the Fundamental Principle of Counting, Multiplication Principle
CO 2	Solve problems in the areas of business calculus, simple and compound interest account, use of compound interest account.
CO 3	Solve systems of linear equations by use of the matrix. Explain the notion of a matrix, including its transpose, identify the properties of special types of matrices and perform different matrix operations
CO 4	Connect acquired knowledge and skills with practical problems in economic practice.
CO 5	Solve a range of first and second order basic differential equations. Understand the concept of integration, and be able to apply different methods of integration to find areas under curves

Course Name	Course Code	LTP	Credit	Semester
STATISTICAL METHODS IN RESEARCH	BCH132	2:01:0	3	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Demonstrate basic understanding of statistical concepts
CO 2	Present statistical analysis with the help of charts and graphs and carry out descriptive statistics analysis manually and with the help of MS-Excel / SPSS
CO 3	Demonstrate basic understanding of probability concepts and probability distribution
CO 4	Carrying out inferential statistical analysis with the help of Ms Excel / SPSS
CO 5	Carrying out correlation; regression & time series analysis manually and with the help of Ms Excel

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND001	0:0:04	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
General English	BCS 101	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Identify the basic elements of grammar required for good and effective communication.
CO 2	Interpret and discuss key ideas of grammar, diction and communication.
CO 3	Develop Creative & Literary Sensitivity in all communication.
CO 4	Design and create texts for a variety of purposes and audiences, evaluating and assessing the effectiveness of grammatical aspects.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - I (UNDERSTANDING SELF FOR EFFECTIVENESS)	BSS103	1:0:0	1	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Develop your understanding of who you are; what your core purpose is, what your values are and what limits your success
CO 2	Manage your emotions and feelings more effectively to have the impact that you need
CO 3	Develop the way that you regulate and control your emotions
CO 4	Learn about your behavioral preferences to become more self-awareness
CO5	Develop and build your emotional intelligence

Course Name	Course Code	LTP	Credit	Semester
FRENCH – I	FLN101	2:0:0	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
GERMAN – I	FLG101	2:0:0	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
SPANISH – I	FLS101	2:0:0	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Self introduction
CO 2	Possessions.
CO 3	Family/friend description with verbs like SER/ESTAR/TENER/HAY
CO 4	Regular AR/ER/IR ending verbs conjugations
CO5	Interrogative words

Course Name	Course Code	LTP	Credit	Semester
CHINESE – I	FLC101	2:0:0	2	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Read, write and speak approx. 50 new Chinese words and understand basic grammar points
CO 2	Interpret words, phrases and sentences of day today conversation related to greeting farewell and personal information like name age, residence, family etc
CO 3	Write Chinese characters, simple sentence and a paragraph on Self Introduction
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to greeting, farewell and personal information like name age, residence family etc.

Course Name	Course Code	LTP	Credit	Semester
AUDIT & ASSURANCE / (AA-F8)	BCH282	3:01:0	4	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the concept of audit & assurance and the functions of audit
CO 2	Securing and handling audit assignments, audit risks
CO 3	Comprehension and evaluation of internal controls, techniques & audit tests
CO 4	Gathering & managing audit evidence and review and reporting

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL ACCOUNTING – II / (FA-F3)	BCH280	2:01:0	3	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and analyse the reasons for the difference between cash book and pass book balances
CO 2	Learn to prepare Receipts & Payment Account, Income & Expenditure Account and Balance Sheet for Non-Profit Organizations
CO 3	Record hire purchase transactions and understand lease accounting
CO 4	Illustrate effectively the concept and nature of accounting for specialized business transactions in accounting for partnership activities

Course Name	Course Code	LTP	Credit	Semester
INCOME TAX LAWS AND PRACTICES/(TX-F6)	BCH281	2:01:0	3	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the legal and procedural structure of taxation in India
CO 2	Classify and compute the income under various heads and thereby compute gross total income & total Income
CO 3	Understand the Tax planning concerning deductions and relaxation available
CO 4	File return and follow other tax-related procedures

Course Name	Course Code	LTP	Credit	Semester
MICROECONOMIC THEORY AND APPLICATIONS – II	BCH202	2:01:0	3	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Demonstrate adequate knowledge & understanding of four market structures by characteristics
CO 2	Analyze and apply the mechanics of demand and supply for firms
CO 3	Calculate and graph the profit maximizing price and quantity in the output markets by use of marginal analysis

Course Name	Course Code	LTP	Credit	Semester
BUSINESS RESEARCH METHODS	BCH224	2:01:0	3	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Demonstrate adequate knowledge & understanding of the business research concepts, methods and methodologies, Identify and specify research questions related to given business problem situation
CO 2	Construct and document an appropriate research design, including argumentation for sampling, data collection and data analysis methods/techniques
CO 3	Develop data collection instrument according to the underlying theoretical framework
CO 4	Identify and apply appropriate data analysis tools and techniques for meeting research objectives
CO 5	Write a scholarly research proposal and research report, using appropriate manuscript writing procedures and considering ethical issues

Course Name	Course Code	LTP	Credit	Semester
FUNDAMENTALS OF COMPUTER IN BUSINESS	BCH215	2:01:0	3	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Explain key concepts, elements and applications of Computer in business;
CO 2	Examine the evolution, and impact of Computer on society and today's business
CO 3	Relate the use of DBMS, E-commerce and ERP in business and management
CO 4	Use Microsoft office effectively-MS Excel, MS Word, MS Power Point and MS Outlook

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND002	0:00:04	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
General English	BCS 201	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Participate in conversation and in small- and whole-group discussion
CO 2	Explore and use English as medium of communication in real life situation
CO 3	Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
CO 4	Identify features of a reading textbook and utilize them as needed
CO 5	Prepare and deliver organized presentations in small groups and to whole class
CO 6	Apply sentence mechanics and master spelling of high frequency words

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - II (PROBLEM SOLVING AND CREATIVE THINKING)	BSS203	1:0:0	1	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Recognize the relation critical thinking with various mental processes
CO 2	Identify hinderance to problem solving processes
CO 3	Analyse the steps in problem-solving process
CO 4	Create plan of action applying creative thinking

Course Name	Course Code	LTP	Credit	Semester
FRENCH – II	FLN201	2:0:0	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
GERMAN – II	FLG201	2:0:0	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
SPANISH – II	FLS201	2:0:0	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in Spanish vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in Spanish
CO 4	Narrate clearly ideas, themes in simple standard Spanish

Course Name	Course Code	LTP	Credit	Semester
CHINESE – II	FLC201	2:0:0	2	2

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Read, write and speak approx. 100New Chinese words and understand basic grammar points.
CO 2	Interpret words, phrases and sentences of day today conversation related to hobbies

	and abilities, gratitude, apology and welcome, time, weather and directions
CO 3	Write Chinese characters, simple sentence and a paragraph on simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to hobbies and abilities. Express gratitude, apology and welcome

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL MANAGEMENT/(FM-F9)	BCH381	3:01:0	4	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the financial objective of the firm, and the key decision rules that stem from this objective
CO 2	Apply financial mathematics and use it for valuation of securities (Shares & Debts)
CO 3	Apply the capital budgeting process techniques to complex valuation situations including the calculation of weighted average cost of capital
CO 4	Understand the concepts of risk in a financial context, and be able to compare and apply the various approaches to manage these risks

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL REPORTING-I/(FR-I-F7)	BCH382	3:01:0	4	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the use and application of the IFRS (and Ind AS in India)
CO 2	Accounting for transactions using accounting standards
CO 3	Preparation of single entity financial statement
CO 4	Analysis & interpretation of accounting statements

Course Name	Course Code	LTP	Credit	Semester
COST AND MANAGEMENT ACCOUNTING – I / (MA-F2)	BCH380	2:01:0	3	3

--	--	--	--	--

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Knowledge and understanding of nature, purpose and scope of managerial information
CO 2	Understanding the concept of costs
CO 3	Methods of costing - absorption & marginal costing
CO 4	Use of budgets and standard costs for planning & control

Course Name	Course Code	LTP	Credit	Semester
INDIRECT TAXES AND AMENDMENTS/(TX-F6)	BCH384	2:01:0	3	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the taxation structure of India
CO 2	Be acquainted with the Indirect Taxes existed prior to GST in India
CO 3	Know the concepts related to GST
CO 4	Understand the mechanism of GST
CO 5	Understand the implementation process of GST
CO6	Understand the payment and return filing process under GST system

Course Name	Course Code	LTP	Credit	Semester
MACRO ECONOMICS ANALYSIS-I	BCH362	2:01:0	3	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Demonstrate adequate knowledge & understanding of the macroeconomic concepts and theories
CO 2	Distinguish between economic concepts and measurements as well as creation and

	interpretation of graphs
CO 3	Calculate various macroeconomic indicators/ variables and analyze the relationship between these variables
CO 4	Argue various macroeconomic determinants and evaluate their impact on real life.

Course Name	Course Code	LTP	Credit	Semester
ENVIRONMENT STUDIES	EVS001	3:01:0	4	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the importance, need and scope of the subject.
CO 2	Evaluate local, regional and global environmental topics related to resource use and management
CO 3	Measure environmental variables and interpret results.
CO 4	Interpret the results of scientific studies of environmental problems and propose solutions to these

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND003	0:0:04	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 301	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Inculcating creative thinking skills
CO 2	Construct and showcase their communication skills in a creative manner.
CO 3	Comprehending and demonstrating ways of self-introduction
CO 4	Outlining and illustrating presentation Skills

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - III (INTERPERSONAL COMMUNICATION AND RELATIONSHIP MANAGEMENT)	BSS 303	1:0:0	1	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to

CO 1	Demonstrate knowledge of strategies for developing a healthy interpersonal communication
CO 2	Recognize the importance of transactional analysis, script analysis
CO 3	Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management
CO 4	Demonstrate knowledge of strategies for developing a healthy interpersonal relationship

Course Name	Course Code	LTP	Credit	Semester
FRENCH - III	FLN301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
GERMAN - III	FLG301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
SPANISH – III	BLS301	2:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	To enable the students to talk about a place like, classroom, market, neighborhood and location of thing with the use of prepositions.
CO 2	To talk about one's likes/dislikes, how one is feeling, to express opinions, pain and illness

CO 3	Speaking about prices/currency/ market and quantity
CO 4	To discuss near future plans (Ir + a +inf.)
CO5	To talk about actions in process. (Present continuous form)

Course Name	Course Code	LTP	Credit	Semester
CHINESE – III	FLC301	02:0:0	2	3

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Read, write and speak approx. 50 New Chinese words and understand basic grammar points
CO 2	Interpret words, phrases and sentences of day today conversation related to size, quantity, shopping, communication, study, work and feelings
CO 3	Write Chinese characters, simple sentence and a paragraph on Self Introduction
CO 4	Communicate with Chinese speaking people using words, phrases and sentences related to size, quantity, shopping, communication, study, work and feelings

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL REPORTING – II / (FR-F7)	BCH481	03:01:0	4	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Application of the IFRS (and Ind AS in India) to various business contexts
CO 2	Preparation of single entity financial statement and simple group financial statements

Course Name	Course Code	LTP	Credit	Semester
STRATEGIC BUSINESS LEADER – I / (SBL-I)	BCH482	03:01:0	4	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Evaluating effectiveness of the governance & agency system
CO 2	Applying a range of professional skills in a corporate environment workplace
CO 3	Understanding leadership and ethics

Course Name	Course Code	LTP	Credit	Semester
STRATEGIC BUSINESS REPORTING – I / (SBR-I)	BCH483	03:01:0	4	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the perspective of professional behaviour & compliance with accounting standards
CO 2	Reporting financial performance in accordance with accounting & reporting standards
CO 3	Interpret financial performance for different stakeholder
CO 4	Assess impact of changes in accounting regulation

Course Name	Course Code	LTP	Credit	Semester
COST AND MANAGEMENT ACCOUNTING – II / (PM-F5)	BCH480	2:01:0	3	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand & apply modern techniques of management accounting and performance management in private sector and not-for-profit organisation
CO 2	Understand & apply decision making techniques in the context of resource optimisation, risk mitigation, promote efficiency
CO 3	Divisional performance and transfer pricing and behavioural considerations in performance management

Course Name	Course Code	LTP	Credit	Semester
MACRO ECONOMICS ANALYSIS -II	BCH451	2:01:0	3	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand and apply equilibrium in goods and financial markets and the composite IS-LM framework.
CO 2	Understand open-economy Macroeconomics, Balance of Payments, exchange rates and general equilibrium.
CO 3	Understand how to apply economic principles to a range of policy questions.

Course Name	Course Code	LTP	Credit	Semester
DATA ANALYTICS	BCH421	2:01:0	3	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Learn Creating effective spreadsheets and managing large sets of data
CO 2	Mastering the use of some of Excel's most popular and highly sought after functions (SUM, VLOOKUP, IF, AVERAGE, INDEX/MATCH and many more...)
CO 3	Create a dynamic report with Excel PivotTables
CO 4	Understand the power and versatility of Microsoft Excel's AddIn, PowerPivot
CO 5	Analyze Excel Worksheet formulas to ensure clean formulas

Course Name	Course Code	LTP	Credit	Semester
INDUSTRY & COMPANY ANALYSIS	BCH422	2:01:0	3	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Demonstrate adequate knowledge & understanding of various production sectors and industries at local and national business level
CO 2	Identify study and analyze relevant global factors that influence business decision making.
CO 3	Identify, extract, critically analyze and evaluate data from multiple sources and discover solutions for business challenges.
CO 4	Demonstrate effective and professional communication and understanding of teamwork principles.

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND004	0:0:04	2	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Awareness and empathy regarding community issues
CO 2	Interaction with the community and impact on society
CO 3	Interaction with mentor and development of Student teacher relationship
CO 4	Interaction among students, enlarge social network
CO 5	Cooperative and Communication skills and leadership qualities
CO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 401	1:0:0	1	4

COURSE OUTCOMES (CO)

CO 1	Identify steps to professional communication
-------------	--

CO 2	Identify the key components of meeting, agendas and meeting minutes
CO 3	Understand the key skills and behaviors required to facilitate a group discussion/presentation
CO 4	Polish current affairs & rapport building

Course Name	Course Code	LTP	Credit	Semester
FRENCH - IV	FLN401	02:0:0	2	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
GERMAN – IV	FLG401	02:0:0	2	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	understand and give instructions
CO 2	understand and reply a letter
CO 3	speak about learning languages
CO 4	find a particular information in a text
CO 5	understand a conversation

Course Name	Course Code	LTP	Credit	Semester
SPANISH – IV	FLS401	02:0:0	2	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in Spanish vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in Spanish
CO 4	Narrate clearly ideas, themes in simple standard Spanish

Course Name	Course Code	LTP	Credit	Semester
CHINESE – IV	FLC401	02:0:0	2	4

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Read, write and speak approx. 100New Chinese words and understand basic grammar points
CO 2	Interpret words, phrases and sentences of day today conversation related to greetings, farewell, personal information like name, age, profession, residence, family, hobbies and abilities. Express gratitude, apology and welcome
CO 3	Write Chinese characters, simple sentence and a paragraph on simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information
CO 4	Communicate with Chinese speaking people using greetings & farewell, exchanging personal information like name, age, profession, residence, family, hobbies and abilities. Express gratitude, apology and welcome

Course Name	Course Code	LTP	Credit	Semester
STRATEGIC BUSINESS LEADER – II / (SBL-II)	BCH582	03:01:0	4	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Evaluation of the current strategic position of an entity in the context of external environment, competition with regard to the organisational capabilities, competencies & resources
CO 2	Development of strategic choices in the context of existing strategic position and the strategic objectives of different types of organisation
CO 3	Use of information technology & data analytics to critically investigate into factors affecting the value chain

Course Name	Course Code	LTP	Credit	Semester
STRATEGIC BUSINESS REPORTING – II / (SBR-II)	BCH583	03:01:0	4	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Reporting of financial performance
CO 2	Group financial statements including group cash flow statements and accounting for associates & joint arrangement
CO 3	Accounting for changes in group structures
CO 4	Foreign transactions & entities

Course Name	Course Code	LTP	Credit	Semester
SUMMER INTERNSHIP	BCH550	0:0:08	4	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Introducing students to real-life situations
CO 2	Encouraging to take up time bound multi-disciplinary and goal-oriented assignment
CO 3	Increasing participant's analytical thinking
CO 4	Equip participants to take decisions in critical and uncertain situations with limited data parameters

Course Name	Course Code	LTP	Credit	Semester
CORPORATE ACCOUNTING	BCH570	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the accounting procedures for share issue & buy back redemption of debentures and preference shares
-------------	--

CO 2	Prepare consolidated financial statement for holding and subsidiary companies
CO 3	Understand valuation of Goodwill and shares
CO 4	Understand the winding up procedure and accounting treatment

Course Name	Course Code	LTP	Credit	Semester
FUNDAMENTALS OF INVESTMENT	BCH505	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand and analyze various investment alternatives
CO 2	Understand the investment environment and risk-return trade-off
CO 3	Understand and perform security analysis and portfolio management
CO 4	Understand the process of diversification and investors expectation
CO 5	Explore the regulatory environment and measures to protect investor

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL MARKETS, INSTITUTIONS AND FINANCIAL SERVICES	BCH506	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	To introduce students to the world of financial services
CO 2	To enrich student's understanding of the fundamental concepts and working of financial service institutions
CO 3	To equip students with the knowledge and skills necessary to become employable in the financial service industry

Course Name	Course Code	LTP	Credit	Semester
PERSONAL FINANCE MANAGEMENT	BCH592	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	make informed decisions about real world financial issues.
CO 2	make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success
CO 3	Understand basic principles needed for effective personal finance management, including the practical applications of money management, budgeting, taxes, credit, insurance, housing, investments, and retirement planning.

Course Name	Course Code	LTP	Credit	Semester
FINANCIAL STATEMENT ANALYSIS	BCH595	2:01:0	3	1

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	analyze and interpret public companies' financial statements.
CO 2	process of business analysis and valuation through the evaluation of financial statements.

Course Name	Course Code	LTP	Credit	Semester
CORPORATE TAX PLANNING	BCH516	02:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the legal and procedural structure of corporate taxation in India
CO 2	Apply deductions & relaxations available and set off and carry forward losses and depreciation
CO 3	Classify and compute gross total income & total Income for companies
CO 4	Understand the Tax planning with reference to various crucial decisions of the management of the company

Course Name	Course Code	LTP	Credit	Semester
INTERNATIONAL BUSINESS	BCH509	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Develop a clear understanding of the conceptual frameworks and definitions of specific terms that are integral to the international management literature
CO 2	Attain a clear understanding of the various factors that help determine the appropriateness of different management strategies for different types of international ventures
CO 3	Analysis of various strategies required for entering different markets globally.
CO 4	Explore and evaluate different career opportunities, specific regional locations, and organizations where the students may seek to pursue an international business management career.

Course Name	Course Code	LTP	Credit	Semester
BUSINESS DATA PROCESSING	BCH518	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Describe an understanding of complete end to end business data analysis process
CO 2	Explain and demonstrate knowledge of data processing, data storage and data retrieval using relational database structure
CO 3	Reflect on different data storage possibilities available for business data
CO 4	Apply analytical skills for implementation of business data processing using Business Intelligence and Reporting tools

Course Name	Course Code	LTP	Credit	Semester
MARKETING MANAGEMENT	BCH590	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Develop understanding of core concepts of marketing and the role of marketing in business and society.
CO 2	Critically analyse and apply marketing strategies based on product, price, place and promotion objectives, under ethical consideration of different market situations
CO 3	Develop an integrated marketing communications plan, which includes promotional strategies, unique marketing mixes and selling propositions for specific product offerings
CO 4	Develop understanding of Global Market place

Course Name	Course Code	LTP	Credit	Semester
HUMAN RESOURCE MANAGEMENT	BCH512	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Learn and be sensitized about HRM frameworks and HRM role in overall management of an organization
CO 2	Develop an understanding of key HRM theories and processes and how they apply to the world of work
CO 3	Evaluate, design and formulate various HRM processes such as recruitment, orientation, selection, training, appraisals and reward system, compensation etc
CO 4	Evaluate the developing role and trends of HRM in global arena

Course Name	Course Code	LTP	Credit	Semester
INDUSTRIAL RELATIONS AND LABOUR LAWS	BCH514	2:01:0	3	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	understand the importance and various aspects of industrial relations and labour laws
CO 2	Utilize various aspects of industrial relations and labour laws in their organization

Course Name	Course Code	LTP	Credit	Semester
ADVANCE FINANCIAL MANAGEMENT – I / (AFM-I)	BCH584	5:01:0	6	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the role of a senior financial advisor in global environment against the backdrop of ethical framework and governance
CO 2	Finance function in a multi-national organisation
CO 3	Financial evaluation of mergers & acquisitions for the stakeholders, particularly the shareholders
CO 4	Financial evaluation of business reorganisation and financial reconstruction

Course Name	Course Code	LTP	Credit	Semester
ADVANCE PERFORMANCE MANAGEMENT – I / (APM-I)	BCH585	5:01:0	6	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Use of strategic planning and control models in planning and monitoring business performance
CO 2	Assessing key external influences on an organisation
CO 3	Changes in business structure and performance management
CO 4	Designing management information systems

Course Name	Course Code	LTP	Credit	Semester
ADVANCE AUDIT & ASSURANCE– I / (AAA-I)	BCH586	5:01:0	6	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Recognise the legal and regulatory environment and its impact on audit and assurance practice
CO 2	Demonstrate the ability to work effectively on an assurance or other service engagement
CO 3	Assess and recommend appropriate quality control policies
CO 4	Identify and formulate the work required to meet the objectives of audit assignments

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND005	0:0:04	2	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Awareness and empathy regarding community issues
CO 2	apply their knowledge and skills to solve specific community problem
CO 3	learn to plan, lead, and organize community events have a sense of belonging to their college campus and community and find something they are interested in doing during their free time
CO 4	make new friends, expand social network, and boost social skills and mental health.
CO 5	be useful to society as it will protect them against stress, frustration, and depression

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS501	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CO 3	Demonstrate proficiency in the use of written communication.
CO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - V (INDIVIDUAL, SOCIETY AND NATION)	BSS503	1:0:0	1	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it
CO 2	Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity
CO 3	Recognize different types of human rights and its importance
CO 4	Identify Indian values taught by different religions
CO 5	Identify long term goals and recognize their talent, strengths and styles to achieve them.

Course Name	Course Code	LTP	Credit	Semester
FRENCH – V	FLN501	2:0:0	2	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in French
CO 4	Narrate clearly ideas, themes in simple standard French

Course Name	Course Code	LTP	Credit	Semester
GERMAN - V	FLG501	2:0:0	2	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and express in German vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance between script and sound in German
CO 4	Narrate clearly ideas, themes in simple standard German

Course Name	Course Code	LTP	Credit	Semester
SPANISH – V	FLS501	20:0	2	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Introduction & Usage of stem changing irregular verbs in Future tense
CO 2	Introduction & Usage of stem changing irregular verbs in Gerundio tense
CO 3	Telephone Conversation
CO 4	Proposing a plan, rescheduling a plan and/or cancelling a plan
CO5	Comparatives
CO6	Introduction of Direct and Indirect Object Pronouns.
CO7	Usage and Familiarity with Preterito Perfecto

Course Name	Course Code	LTP	Credit	Semester
CHINESE – V	FLC501	2:0:0	2	5

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	to Read Chinese sentences given in the above lessons.
-------------	---

CO 2	carry out conversation with classmates on above topics
CO 3	grasp important grammatical structures covered in the lessons and use
CO 4	speak Chinese sentences given in the text correctly

Course Name	Course Code	LTP	Credit	Semester
STRATEGIC BUSINESS LEADER – III / (SBL-III)	BCH682	3:01:0	4	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand and apply the process of risk management
CO 2	Organisation control and audit
CO 3	Finance function in planning & decision making
CO 4	Innovation and change management

Course Name	Course Code	LTP	Credit	Semester
INTRODUCTION TO INDIAN ECONOMY	BCH679	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Develop ideas of the basic characteristics of Indian economy, its potential on natural resources
CO 2	Understand the importance, causes and impact of population growth and its distribution, translate and relate them with economic development
CO 3	Grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government
CO 4	Understand agriculture as the foundation of economic growth and development, analyse the progress and changing nature of agricultural sector and its contribution to the economy as a whole
CO 5	Not only be aware of the economy as a whole, they would understand the basic features of Indian economy, sources of revenue, how the state government finance its programmes and projects

Course Name	Course Code	LTP	Credit	Semester
DISSERTATION	BCH655	0:00:12	6	6

--	--	--	--	--

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	In-depth understanding of academic theory and the preparation of high-quality research pertinent to the field of study
CO 2	Ability to select appropriate research methods and techniques suitable for the candidate's research field
CO 3	In-depth understanding the current state of the art in the individual research area, and the ability to appropriately employ methods and existing research results in the development of new knowledge, theories and presentation of research in the individual research area

Course Name	Course Code	LTP	Credit	Semester
ENTREPRENEURSHIP DEVELOPMENT	BCH671	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Develop understanding of core concepts of entrepreneurship and the role of entrepreneur in business and society.
CO 2	Ability to analyze marketing environment in which the small business related to tourism operates and provide solutions based on a critical examination of available information.
CO 3	Critically analyse and apply management strategies based on product, price, place and promotion objectives, under ethical consideration of different market situations and develop a successful Business plan.
CO 4	Develop an integrated marketing communications plan, which includes promotional strategies, unique marketing mixes and selling propositions for specific service offerings
CO 5	Develop the ability to collect, process, and analyze market information to make informed decisions

Course Name	Course Code	LTP	Credit	Semester
SPREADSHEET MODELING IN BUSINESS	BCH672	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	study the computer programs for business and financial modeling and structuring and solving financial problems using spreadsheets and structured programming techniques.
CO 2	develop skills in translating financial models into spreadsheets using Microsoft Excel and to utilize and integrate spreadsheet functionalities, programming, and interfaces in financial applications.

Course Name	Course Code	LTP	Credit	Semester
REGULATION OF DOMESTIC AND FOREIGN EXCHANGE MARKETS	BCH661	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Analyzing the nature and functioning of Indian and foreign exchange markets,
CO 2	To understand determination of exchange rates and their forecasting
CO 3	Explaining the foreign exchange risks and to identify risk management strategies
CO 4	Understanding foreign exchange markets, international financial markets and their functions & needs
CO 5	Analyzing foreign exchange risks and risk management strategies

Course Name	Course Code	LTP	Credit	Semester
VENTURE PLANNING	BCH662	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand different aspects of starting new business
CO 2	Generate the creative processes in new ideas.

Course Name	Course Code	LTP	Credit	Semester
BANKING & INSURANCE	BCH663	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the rudimentary aspects of Banking and Insurance.
CO 2	Explain the reasons behind the happenings in the banking and insurance sector.
CO 3	Trace the growth of the sector in past and future
CO 4	Enhance their skills for best matching for the sector

Course Name	Course Code	LTP	Credit	Semester
E-COMMERCE AND ITS APPLICATIONS	BCH673	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Discuss the e-Commerce process
CO 2	Describe an example of system architecture for an e-Business
CO 3	List the seven major elements of web design
CO 4	Discuss security issues and explain procedures used to protect against security threats

Course Name	Course Code	LTP	Credit	Semester
ADVERTISING AND PERSONAL SELLING	BCH611	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Identify and relate the problems to the field of adverting and sales promotion if any
CO 2	Investigate the root cause for the ineffectiveness of the campaign
CO 3	Develop efficient and effective plans to run the campaigns
CO 4	Evaluate the steps taken and be in a position to provide recommendations.

Course Name	Course Code	LTP	Credit	Semester
SERVICE MARKETING	BCH612	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Understand the Concept of Services and intangible product
CO 2	Discuss the relevance of the services Industry to Industry
CO 3	Examine the characteristics of the services industry
CO 4	Analyse the role and relevance of Quality in Services
CO 5	Visualise future changes in the Services Industry

Course Name	Course Code	LTP	Credit	Semester
ETHICS AND GOVERNANCE	BCH674	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	To understand the Business Ethics and to provide best practices of business ethics
CO 2	To learn the values and implement in their careers to become a good managers
CO 3	To develop various corporate social Responsibilities and practise in their professional life
CO 4	To Imbibe the ethical issues in corporate governance and to adhere to the ethical codes

Course Name	Course Code	LTP	Credit	Semester
COMPENSATION MANAGEMENT	BC614	2:01:0	3	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	to understand the concept of compensation management
CO 2	To understand and implement wage policies keeping in view the labour legislations.

Course Name	Course Code	LTP	Credit	Semester
ADVANCE FINANCIAL MANAGMENT – II / (AFM-II)	BC684	5:01:0	6	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Usinadvanced investment appraisal techniques& estimating cost of capital
CO 2	Financing of investment including international investments
CO 3	Advanced risk management techniques
CO 4	Mergers and acquisitions

Course Name	Course Code	LTP	Credit	Semester
ADVANCE PERFORMANCE MANAGMENT – II / (APM-II)	BC685	5:01:0	6	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Applying strategic performance measurement in private sector organisations
CO 2	Divisional performance & transfer pricing issues
CO 3	Strategic performance measures in not-for-profit organisations
CO 4	Alternative views of performance measurement & management

Course Name	Course Code	LTP	Credit	Semester
ADVANCE AUDIT & ASSURANCE– II / (AAA-II)	BC686	5:01:0	6	6

COURSE OUTCOMES (CO)

At the successful completion of this course you (the student) should be able to:

CO 1	Apply the International Standards on Auditing
CO 2	Evaluate findings and the results of work performed and draft suitable reports on assignments
CO 3	Identify and formulate the work required to meet the objectives of non-audit assignments
CO 4	Understand the current issues and developments relating to the provision of audit-related and assurance services



AMITY UNIVERSITY
— R A J A S T H A N —

Amity School of Hospitality

(ASH)

Program Code: BHM

12289

Duration – 4 Years Full Time

Programme Structure

Credits Summary

Program	Semester	Core Credit	Domain Credit	Open Elective/Minor Track	Value Added	Industrial Training/Research Project	Total Credit
UG	I	16	0	0	4	0	20
	II	21	0	3	4	0	28
	III	15	2	3	8	0	28
	IV	0	3	3	4	16	23
BHM	V	14	4	3	4	0	25
	VI	17	4	3	4	0	28
	VII	10	10				20
4 Years	VIII	20				8	28
	Total	113	20	15	28	24	200

CC = Core Courses

DE = Domain Elective

OE = Open Elective

VA = Value Added Courses

NTCC = Non- Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

- Acquire domain specific practical knowledge and skills regarding core functional areas of Hotels and customer front and functions.
- Understand the basic principles of essential hospitality business functions.
- Evaluate and communicate persuasively with guests and team members.
- Recognize the challenges & opportunities and working effectively with people in diverse environment.
- Reflect multidisciplinary approach in creative and innovative thinking in Hospitality business.
- Develop leadership skills, professional attitude and work ethics in diverse situations.

PROGRAMME STRUCTURE

Amity School of Hospitality (ASH)

Program Name: Bachelor of Hotel Management

FIRST SEMESTER

Code	Course	Category	L	T	P/F W	Total Credit
BHM 101	Food Production & Culinary Art – I	CC	2			2
BHM 102	Food & Beverage Service Operation – I	CC	2			2
BHM 103	Front Office Operation – I	CC	2			2
BHM 104	Accommodation Operation – I	CC	2			2
BHM 105	Computer & Information Technology	CC	1	-		1
BHM 121	Food Production & Culinary Art – I Lab	CC			4	2
BHM 122	Food & Beverage Service Operation – I Lab	CC			4	2
BHM 123	Front Office Operation – I Lab	CC		-	2	1
BHM 124	Accommodation Operation – I Lab	CC		-	2	1
BHM 125	Computer & Information Technology - I Lab	CC		-	2	1
BCS 101	English	VA	1		-	1
BSS 104	Behavioural Science – I	VA	1	-	-	1
FLF 101	Foreign Language – I French	VA	2	-	-	2
Total						20

Amity School of Hospitality (ASH)

Program Name: Bachelor of Hotel Management

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Total Credit
BHM 201	Food Production & Culinary Art – II	CC	2	1		3
BHM 202	Food & Beverage Service Operation – II	CC	2	1		3
BHM 203	Front Office Operation – II	CC	2	1		3
BHM 204	Accommodation Operation – II	CC	2	1		3
BHM206	Fundamentals of Hospitality Accounting	CC	1	1	-	2
BHM220	Bakery & Confectionary –II Lab	CC	-	-	4	2
BHM 222	Food & Beverage Service Operation – II Lab	CC			4	2
BHM 223	Front Office Operation – II Lab	CC		-	2	1
BHM 224	Accommodation Operation – II Lab	CC		-	2	1
BHM 225	Computer & Information Technology – II Lab	CC			2	1
BCS 201	English	VA	1		-	1
BSS 204	Behavioural Science – II	VA	1	-	-	1
FLF 201	Foreign Language – II French	VA	2	-	-	2
Open Elective -I		OE	3			3
Total						28

Amity School of Hospitality (ASH)

Program Name: Bachelor of Hotel Management

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Total Credit
BHM 301	Food Production & Culinary Art -III	CC	2			2
BHM 302	Food & Beverage Service Operation –III	CC	2			2
BHM 303	Front Office Management – I	CC	1	1		2
BHM 304	Accommodation Management – I	CC	1	1		2
BHM 305	Managerial Accounting	CC	1	1	-	2
BHM 320	Food Production & Culinary Art –III Lab	CC			4	2
BHM 321	Food & Beverage Service Operation –III Lab	CC			2	1
BHM 326	Room Division Management – I Lab	CC		-	2	1
BHM 324	Information Technology in Hospitality & Tourism Lab	CC	-	-	2	1
EVS003	Environmental Studies	VA	3	1		4
DE Electives: Student has to select 1 course from the list of following DE electives						
BHM 306	Food Science & Nutrition	DE	2			2
BHM 307	Tourism Operations	DE	2			
BCS 301	Communication Skills – I	VA	1		-	1
BSS 304	Behavioural Science – III	VA	1	-	-	1
FLF 301	Foreign Language – III French	VA	2	-	-	2
Open Elective -II		OE	3			3
Total						28

Amity School of Hospitality (ASH)

Program Name: Bachelor of Hotel Management

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Total Credit
Industrial Training (3 months)(Jan 1 to March 30)						
BHM 450	Food Production Training Report					4
BHM 451	Food & Beverage Service Training Report					4
BHM 452	Front Office Management Training Report					4
BHM 453	Accommodation Management Training Report					4
BCS 401	Communication Skills – II	VA	1		-	1
BSS 404	Behavioural Science – IV	VA	1	-	-	1
FLF 401	Foreign Language – IV French	VA	2	-	-	2
	Open Elective –III (6 sessions x 6 weeks)	OE	3			3
TOTAL						23

Amity School of Hospitality (ASH)

Program Name: Bachelor of Hotel Management

FIFTH SEMESTER

Code	Course	Category	L	T	P/FW	Total Credits
BHM 501	Food Production Management – I	CC	2			2
BHM 502	Food & Beverage Management & Control – I	CC	2			2
BHM 503	Front Office Management – II	CC	1	-		1
BHM504	Accommodation Management –II	CC	1			1
BHM 505	Financial Management	CC	2			2
BHM 506	Hospitality & Tourism Research Methodology	CC	2			2
BHM 521	Food Production Management – I Lab	CC			4	2
BHM 522	Food & Beverage Management & Control – I Lab	CC			2	1
BHM 524	Accommodation Management –II Lab	CC			2	1
DE Electives: Student has to select 2 course from the list of following DE electives						
BHM 507	Hotel Law	DE	2			4
BHM 508	Hotel Interior Decoration	DE	2			
BHM 509	Revenue Management	DE	1	1		
BCS 501	Communication Skills – III	VA	1		-	1
BSS 504	Behavioural Science – V	VA	1	-	-	1
FLN 501	Foreign Language – V French	VA	2	-	-	2
Open Elective -IV		OE	3			3
Total						25

Amity School of Hospitality (ASH)
Program Name: Bachelor of Hotel Management

SIXTH SEMESTER

Code	Course	Category	L	T	P/FW	Total Credit
BHM 601	Food Production Management – II	CC	2			2
BHM 602	Food & Beverage Management & Control – II	CC	2			2
BHM 605	Hospitality & Tourism Marketing Management	CC	2			2
BHM 606	Facility Management, Planning & Design – I	CC	1			1
BHM 627	Food styling & presentation - Lab	CC			4	2
BHM 622	Food & Beverage Management & Control – II Lab	CC			2	1
BHM 650	Hospitality Integrated Project- Designing a product	CC				7
DE Electives: Student has to select 2 course from the list of following DE electives						
BHM 607	Entrepreneurship Development	DE	2			4
BHM 608	Meeting ,Confrences & Exhibition Management	DE	2			
BHM 609	IndoAsian Cuisine	DE	2			
BCS 601	Communication Skills – IV	VA	1		-	1
BSS 604	Behavioural Science – VI	VA	1	-	-	1
FLN 601	Foreign Language – VI French	VA	2	-	-	2
Open Elective -V		OE	3			3
Total						28

Amity School of Hospitality (ASH)

Program Name: Bachelor of Hotel Management

SEVENTH SEMESTER

Code	Course	Category	L	T	P/FW	Total Credits
BHM 701	Advance Food Production Management – I	CC	2			2
BHM 702	Advance Food & Beverage Management -I	CC	2			2
BHM 710	Resort & Club Management	CC	2			2
BHM 705	Facility Management, Planning & Design – II	CC	2			2
BHM706	Human Resource Management	CC	2			2
Domain Specialization Elective: Student has to select 01 group from the list of following:						
Group A						
BHM 720	Bakery & Confectionary – V Lab	DE		1	4	3
BHM 721	Advance Food Production Management – I Lab	DE		1	4	3
Group B						
BHM 722	Advance Food & Beverage Management –I Lab	DE		1	4	3
BHM 725	Bar Operations	DE	2	1		3
Group C						
BHM 723	Advance Front Office Operation Management-I Lab	DE		1	4	3
BHM 724	Advance Accommodation Operation Management-I Lab	DE		1	4	3
DE Electives: Student has to select 2 course from the list of following DE electives						
BHM 707	Customer Relationship Management	DE	2			4
BHM 708	Restaurant Management	DE	2			
BHM 709	Safety & Security Management	DE	2			
Total						20

Amity School of Hospitality (ASH)

Program Name: Bachelor of Hotel Management

EIGHTH SEMESTER

Code	Course	Category	L	T	P/FW	Total Credit
BHM 860	Dissertation – Research project on Hospitality & Tourism					8
BHM 850	Practice School/ Specialized Training (Jan to April)	CC	-	-	-	20
Total						28

COURSE OUTCOMES

BHM 101 Food Production Culinary Art-I

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the various types of hygiene, cooking methods and equipment's.
2. Apply the uses of cooking methods in different cuisine with aims of it.
3. Present analysis of hotel industry and attitude of chef as per required for hotel
4. Some other kind of basic preparation like soup, stock, egg and other ingredients knowledge.

BHM 102 Food and Beverage Service Operation – I

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Define the various sectors of food & beverage.
2. To differentiate between different sectors of F&B service & its sub-department
3. To familiar with different cutlery, crockery, glassware, hollowware etc. Used in food & beverage department.

BHM 103 Front office Operations

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe growth and role of Hotel Industry.
2. Explain duties and responsibilities of front office staff
3. Explain organizational structure of front office department
4. Develop telephone handling skills

BHM 104 Accommodation operation I

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To know the importance, function, the layout and operation of HK deptt.
2. To know about the various qualities of HK personnel, various jobs
3. To know about the cleaning science, manual and mechanical equipment and various types of cleaning agents and their selection process
4. To know about the various types of public area and their cleaning process and special services

5. To know about the record and register and formats, maintain in housekeeping
6. To know about the inter & Intra coordination of housekeeping with another department

BHM 105 Computer and Information Technology-I

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the usage of computers and why computers are essential components in business and society and to identify categories of programs, system software and applications.
2. Study of Microsoft Office programs to create personal, academic and business documents following current professional and/or industry standards
3. Apply skills and concepts for basic use of computer hardware, software, networks, and the Internet in the workplace and in future coursework as identified by the internationally accepted Internet and Computing Core (IC3) standards.

BHM 121 Food Production Culinary Art-I

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the various types of hygiene, cooking methods and equipment's.
2. Apply the uses of cooking methods in different cuisine with aims of it.
3. Present analysis of hotel industry and attitude of chef as per required for hotel
4. Some other kind of basic preparation like soup, stock, egg, and other ingredients knowledge.

BHM 122 Food & beverage service Operation –I (LAB)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To make students familiar with crockery, cutlery, glassware, flatware and hollowware used in a restaurant.
2. Learn about to how to clean and polish of all service equipment.
3. To make students aware for maintenance of f&b equipment's used in food & beverage service department.

BHM 123 FRONT OFFICE OPERSATION – I (LAB)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Explain the procedure of welcoming the guest
2. Knowledge about tariff.
3. Prepare different format used in front office.

4. Handle the telephonic quarters of guest

BHM 124 Accommodation operation II LAB

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To know the various decoration in rooms of hotel
2. To know about the room structure
3. To know about the various furniture, fixture and equipment's use in guest room
4. To know about the various guest room supplies provided
5. To know about the various types manual cleaning equipment's
6. To know about the various types of mechanical equipment's
7. To know about the various types of surface and their cleaning process
8. To know about the various areas to be clean daily formula is above, behind and below
9. To know about the cleaning of various flooring and their daily cleaning
10. To know about the cleaning of various flooring and their periodic cleaning
11. To know about bed making process
12. To know the trolley set up for room cleaning

BHM 125 Computer and Information Technology I=Lab

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the usage of computers and why computers are essential components in business and society and to identify categories of programs, system software and applications.
2. Study of Microsoft Office programs to create personal, academic and business documents following current professional and/or industry standards
3. Apply skills and concepts for basic use of computer hardware, software, networks, and the Internet in the workplace and in future coursework as identified by the internationally accepted Internet and Computing Core (IC3) standards.

BCS 101 English

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. **Identify** the basic elements of grammar required for good and effective communication.
2. **Interpret and discuss** key ideas, themes, and aesthetic modalities related to diction and communication.
3. **Explain** how the ideas, themes and modalities arose within a given professional context.
4. **Develop** Creative & Literary Sensitivity in all communication.

5. **Design** and create texts for a variety of purposes and audiences, evaluating and assessing the effectiveness of grammatical aspects.

BSS 104 Behavioural Science UNDERSTANDING SELF FOR EFFECTIVENESS

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- i. Demonstrate awareness of self and the process of self-exploration.
- ii. Demonstrate knowledge of strategies for developing a healthy self-esteem.
- iii. Recognize the importance of attitudes and its effect on personality.
- iv. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FLF 101 Foreign Language French

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- You understand French texts and express themselves in standard French eventually to evolve into potential language instructors
- You acquire general and domain specific vocabulary and skills (Eg. Tour Management French, Translation-Interpretation)

BHM 201 - Food Production Culinary Art-II (Theory)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To Know the international Soups, sauces and gravies.
2. To learn about meat and fish cookery.
3. To learn about the starch cookery.
4. To learn about dairy product.
5. To learn about the Indian Cookery.

BHM 202 - Food & Beverage Service Operations II

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the menu & various types of menu used in hospitality sector.
2. Explain F&B staff organization for banquets & function catering and their job descriptions
3. Describe the procedure of planning and hosting banquet function including buffet
4. To have knowledge of preparation of cocktails and Gueridon service.
5. To get familiar with alcoholic beverage & beer Service.

BHM 203 - Front Office Operation –II

Course Outcomes (CO)

On successful completion of this course, students will be able to:

On successful completion of this course, students will be able to:

1. Describe the various component Hotel sector and role of front office.
2. To differentiate different sectors of Front Office & its sub department.
3. To familiar with the process of welcoming, check Inn, check out and basic requirements of front office and functions, guest accounting, tariff structure etc.

BHM 204 - Accommodation operation

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Knowledge of laundry and laundry procedure
2. Linen room, linen inventory and par stock maintenance
3. Issuing and Maintenance of uniform
4. Routine and records maintained by hk department
5. To know various, records, register and formats.

BHM 206 - Fundamentals of Hospitality Accounting

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Develop a working vocabulary of accounting terminology.
2. Gain an understanding and ability to work with accounting principles including, but not limited to, debits and credits, journalizing, posting and preparation of financial statements.
3. Gain an ability to analyze transactions, apply them to the accounting cycle, prepare a trial balance.

BHM 220 - Bakery and Confectionery

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To learn how to prepare bread rolls
2. To learn how to prepare cookies
3. To learn how to prepare cakes.

BHM 222 - Food & beverage service Operation –II (Lab)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Layout the tables for different courses & layout of tables according to course offered
2. Serve the food & beverage in Hospitality sector Service of some alcoholic & non-alcoholic beverages
3. Make different tea & coffee
4. Know different job position of food & beverage department.

BHM 223 - Front Office Lab – II

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To make students able to handle guest.
2. To develop students interpersonal skills
3. To make students familiar with technical skills like the process of bill settlement, telephone handling, software handling, check Inn, check out and basic requirements of front office and functions

BHM 224 - Accommodation operation II LAB

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Setting up maids card trolley
2. Able to make guest room and bath room
3. Able to clean and maintain public area of a hotel
4. Learn scrubbing and polishing of floors
5. Polishing and buffing (metal and wood)

BHM 225 - Computer & Information Technology- II (Lab)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- 1) Define the various functionalities of Microsoft-Excel and its power to analyze the data as per the specific requirement.
- 2) Apply the knowledge of Computer for implementation purpose and industrial production/application.
- 3) Explore their knowledge to make simple and effective power point presentation.
- 4) Create an organizational chart using the different views.
- 5) Demonstrate the basic knowledge of Computer in the field of hospitality and management.

BCS 201 - English

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Identify essentials components of language
2. Make inferences and predictions about spoken discourse
3. Develop Creativity&Confidence in the service industry situations.
4. Identify changing trends in Hotel Industry and utilize them as needed
5. Explore and use English as medium of communication in real life situation

BSS 204 - Behavioural Science (PROBLEM SOLVING AND CREATIVE THINKING)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FLF 201 - Foreign Language French

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. **Identify** and **express** in French vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in French
4. **Narrate** clearly ideas, themes in simple standard French

BHM 301- Food Production Culinary Art-III

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the various type of regional Indian cuisine.
2. Apply the various equipments & cooking method according to type of Indian regional cuisine.
3. Present analysis of hotel Industries in a professional way and other kind of function like menu planning, indenting, purchasing and receiving.

BHM 302- Food and Beverage Service Operation - III

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Define Wine and knowledge about the history and different types of Wine.
2. Explain about the Principle Wine producing regions of the World
3. Learn about Spirits – History, Production, Types.
4. Gain knowledge on Aperitifs and its types
5. Define Liqueur; explain the manufacturing process and types of Liqueurs

BHM 303- Front Office

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the core concepts of Front office operations and Management.
2. Handle the basic and critical situations of front office operations.
3. Develop the communication skills to handle the circumstances.
4. Learn the technical procedures and equipments and terminologies of front office.

BHM 304- Accommodation operation

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To know about the daily laundry operation planning, laundry machinery, types of stain removal, setup of linen room, uniforms & exchange process
2. To know about the par stock, inventory process & discard management
3. To know about the flowers & flower arrangement
4. To know about bed & bedding construction
5. To know about the various types of fabric and their construction, and their qualities, nature fibres, synthetic fibre, regenerated fibres, weaving designing formation
6. To know about the carpet and its construction process, their qualities maintenance of carpet
7. To know about various kind of materials used in construction of decorative items likeceramic construction and their type, glass construction and their types, plastic construction and their types, leather construction and their types, metal construction and their types and

BHM 305- MANAGERIAL ACCOUNTING

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Explain contents of income statement, balance sheet and departmental income statements and expense statement and solve practical problem
2. List the types of capital and revenue expenses incurred in a hotel, and demonstrate hotel accounting procedures.
3. Explain the purpose of a uniform system of accounts, and describe the purpose of and formats for account numbering systems

BHM 307- TOURISM OPERATIONS

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe introduction to in bond and out bond tourism.
2. Explain tourism products, itinerary development.
3. Explain Tour Packaging Management Concept, Origin and development of Tour Packaging,
4. Developing a Tour Marketing Plan, Marketing Strategy of Inbound & Outbound tours
5. Explain Role and Contribution of ASTA, PATA, TAAI

BHM 320- Food Production & Culinary Art III (Lab)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the various type of regional Indian cuisine.
2. Apply the various equipments & cooking method according to type of Indian regional cuisine.
3. Present analysis of hotel Industries in a professional way and other kind of function like menu planning, indenting, purchasing and receiving.

BHM 321- Food and Beverage Service Operation - III (LAB)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Demonstrate the different steps of Serving Wines.
2. Demonstrate the different steps of Serving Spirits.
3. Learn to set covers for a fixed menu
4. Prepare atleast 5 mocktails and 5 cocktails

BHM 324- Information Technology in Hospitality & Tourism (Lab)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Develop an understanding of the introduction, history, concepts and nature of information technology relating to hospitality and tourism industry.

2. Understand how you can use the Information technology to design e-commerce, website and apply a database management system to manage tourism and hospitality services.
3. Demonstrate knowledge of global impacts of innovation and technology on the hospitality and tourism industry and its stakeholders.

**BHM 326- Room Division Management – I (LAB
Course Outcomes (CO))**

On successful completion of this course, students will be able to:

- Use Computers in Front Office & Housekeeping
- Prepare report in front office and housekeeping
- Handle the various level of Situations of Operation

**EVS003- ENVIRONMENTAL SCIENCES
Course Outcomes (CO)**

On successful completion of this course, students will be able to:

Learning Outcomes	On completion of this programme
1. Clearly express ideas orally and in writing	<ul style="list-style-type: none"> • You will be able to exchange your views in seminars/conferences and even a part and parcel in writing the same as articles in journals
2. Demonstrate an understanding of, and appreciation of multicultural, including global perspectives	<ul style="list-style-type: none"> • You will be having a clear concept of multicultural and global perspectives through reading all genres of broad literature range prescribed in your syllabus
3. Conduct research demonstrating information literacy	<ul style="list-style-type: none"> • be acquainted with the research writing techniques • locate Citations and their techniques (APA/MLA)
4. Produce effective research papers and presentations	<ul style="list-style-type: none"> • To produce your original writings as article/research papers for publications • You will be able to make and deliver presentations of the studied area
5. Appropriately apply skills and knowledge	<ul style="list-style-type: none"> • You will be able to apply skills and knowledge attained from the classroom to your internship experience
6. Analyze broad range of literature(s)	<ul style="list-style-type: none"> • To analyze wide range of written literature and language, recognizing their temporal, social, political and artistic context.

FLF 301 French

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- 1. Identify and express in French vocabulary and grammar norms**
- 2. Interpret different types of texts as well as cultural ideas and themes.**
- 3. Demonstrate comprehension of nuance between script and sound in French**
- 4. Narrate clearly ideas, themes in simple standard French**

BCS 301 Communication Skills

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Identify essentials components of language
2. Make inferences and predictions about spoken discourse
3. Develop Creativity&Confidence in the service industry situations.
4. Identify changing trends in Hotel Industry and utilize them as needed
5. Explore and use English as medium of communication in real life situation

BSS 304 Behavioural Science

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- i. Demonstrate knowledge of strategies for developing a healthy interpersonal communication
- ii. Recognize the importance of transactional analysis, script analysis
- iii. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management.
- iv. Demonstrate knowledge of strategies for developing a healthy interpersonal relationship.

BHM 450- FOOD PRODUCTION TRAINING REPORT

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- (i) Explain the organizational structure of the department
- (ii) Describe job description of various job titles, work schedules, opening & COsing duties.
- (iii) Explain various sections and their functions
- (iv) Observe personal hygiene, kitchen hygiene and sanitation
- (v) Identify forms/formats, records and registers maintained
- (vi) Help in preparation of various dishes, garnish and service
- (vii) Observe food production standards of finished products

BHM 451- FOOD AND BEVERAGE SERVICE TRAINING REPORT

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- (i) explain staff organization
- (ii) do layout
- (iii) list all equipments used (including crockery, cutlery, glassware etc) and use of these equipment
- (iv) describe and explain the menu and bar card
- (v) perform task for table reservation & receiving the guest
- (vi) lay the table, placing the order and pick-up, service and clearance procedure
- (vii) list all bar equipments
- (viii) take and serve orders of different beverages, cigars and cigarettes.

BHM 452 - FRONT OFFICE MANAGEMENT TRAINING REPORT

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- (i) understand and explain the organization structure
- (ii) prepare job descriptions of various job titles at front office
- (iii) understand various procedures & functions followed for:-
 - 1. reservations
 - 2. reception & information
 - 3. bell desk
 - 4. bills and cash
 - 5. guest relations
 - 6. night auditing
- (iv) maintain various records & registers and understand their uses.

BHM 453 - ACCOMMODATION MANAGEMENT TRAINING REPORT

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- i) understand and explain the organization structure and various sections of the department
- ii) perform duties and responsibilities of the executives and non-executives of the department
- iii) describe the functions of various sections
- iv) explain the duties of room attendant and houseman in different shifts
- v) maintain various records and registers
- vi) demonstrate and follow procedures for:
 - a) cleaning of room and bathroom
 - b) lost and found items
 - c) exchange of linen
 - d) cleaning of various surfaces
 - e) pest control
 - f) flower arrangement procedures

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Identify steps to professional communication
2. Identify the key components of meeting, agendas and meeting minutes
3. Understand the key skills and behaviors required to facilitate a group discussion/presentation
4. Polish current affairs & rapport building

BSS 404-Behavioural Science (GROUP DYNAMICS AND TEAM BUILDING)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Compare the difference between the groups and teams and their strength and weaknesses. Also, the internal and external factors that affect their functioning.
2. Access when there is a need of group formation and when it is needed to be transformed into team.
3. Identify the characteristics of leaders and the power practiced by them.
4. Apply the type of leadership style power practiced in different situation.

FLF 401-French

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- 1. Identify and express in French vocabulary and grammar norms**
- 2. Interpret different types of texts as well as cultural ideas and themes.**
- 3. Demonstrate comprehension of nuance between script and sound in French**
- 4. Narrate clearly ideas, themes in simple standard French**

BHM 501 Food Production Management-I
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the various type of meat process in the hotel industry.
2. Apply the various Technique and equipments According to type of process or cold meat preparation.
3. Present analysis of hotel Industries in a professional way and other kind of function like larder controlling and preservation process.

BHM 502 Food and Beverage Management and Control - I
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Define budget, budgetary control
2. Explain various Food Costs, Sales, Inventory Control
3. Describe all the aspects of Beverage Control
4. Implement Menu Engineering techniques
5. Prepare MIS reports.

BHM 503 Front Office Management
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the core concepts of Front office Revenue Management.
2. Solve the case studies based on the situations of front office.
3. Develop the communication skills to handle the circumstances.
4. Learn the technical calculations of yield Management of front office.

BHM 504 ACCOMMODATION MANAGEMENT – II
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe about types of bed and mattress,
2. Explain carets, weaving
3. **Familiar with characteristic of glass plastic leather metal.**
4. **Implementation in housekeeping**

BHM 505 Financial Management II
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Understand the concepts and importance of business finance
2. Acquaint with the short term and long term financing decision in a business
3. Understand the procedures and their application related to working capital management in a business
4. Understand the procedures and their application related to Capital budgeting in a business
5. Understand the procedures and their application related to Capital structure & Dividend Policy in a business

BHM 506 Hospitality & Tourism Research Methodology

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Writing different types of research proposals
2. Constructing the relevant tools of research
3. Conduct a research project using appropriate qualitative and quantitative techniques
4. Write a research report
5. Evaluate a research report
6. Give presentation of report supported by latest aids.

BHM 507 HOTEL LAW

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the core concepts of Hospitality Laws.
2. Explain Laws relating to food & beverages as well as Licenses.
3. Develop legal awareness and instinct.
4. Understanding the various functions of law especially with regard to public safety.

BHM 508 HOTEL INTERIOR DECORATION

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To know about the principle of interior design
2. To know about the elements/ approaches of design
3. To know about the interior of art Nouveau
4. To know about the interior of Victorian design
5. To know about the interior of arts & crafts movement
6. To know about the interior of eclectism
7. To know about the interior of Frank Lloyd Wright
8. To know about the interior of Walter Gropius
9. To know about the interior of De Stijl
10. To know about the interior of Mies van der Rohe
11. To know about the interior of Le Corbusier
12. To know about the interior of art deco
13. To know about post war modernism interior
14. To know about various types of flooring
15. To know about various types of windows
16. To know about various types of window covering
17. To know about various tricks used in interior decoration

BHM 521 Food Production Management-I (Lab

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Students will get familiar with the equipment's used in international cooking.
2. To plan an international, complete meal.

3. To learn famous dishes preparation of international cuisine.
4. To know about the preparation of Galantines, Pate, Terrines, Mousselines

BHM 522 Food & beverage management and control –I (LAB Course Outcomes (CO))

On successful completion of this course, students will be able to:

1. To learn about the budget & various types of budget & breakeven analysis in hospitality sector.
2. To handle different situations cost analysis. Inventory management, bar inventory.
3. To learn about the different control system, menu engineering, supervisory skills.

BHM 524 ACCOMMODATION MANAGEMENT – II (LAB Course Outcomes (CO))

On successful completion of this course, students will be able to:

1. Describe different types of fabrics and their uses.
2. Knowledge about different types of carpets, and room interior
3. Selection of appropriate fabric and carpet for specific use.
4. Apply knowledge while dealing with fabric, carpets, and room interior and developed carpet shampooing skills

BSS 504-Behavioural Science

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- i. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
- ii. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
- iii. Recognize different types of human rights and its importance.
- iv. Identify Indian values taught by different religions.
- v. Identify long term goals and recognize their talent, strengths and styles to achieve them.

BCS 501-Communication Skills

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while choosing the appropriate channel of formal communication
3. Apply acquired knowledge with the appropriate selection of channel of formal communication.

4. Develop and empower self with the ease of using appropriate medium of communication.

FLF 501 French

Course Outcomes (CO)

On successful completion of this course, students will be able :

- To make contact with someone
- To distribute the rooms and baggage
- To accompany a client
- To describe the equipments of a room
- To take charge of a client
- To welcome on the phone

BHM 601 - Food Production Management- II
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Explain and write various types of appetizers garnishes and sandwiches
2. Acquire knowledge of wines and herbs in cooking, international cuisine, bakery and confectionary products
3. Have knowledge of production management and research development.

BHM 602 - Food & Beverage Management & Control-II
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To understand about food & beverage outlets, to calculate space requirements, staff requirements and cost.
2. To know the standard operating procedures for food & Beverage Outlets, learn supervisory skills for operating Food & Beverage outlets
3. To know about function catering, how to plan a menu for different types of buffet menu
4. To have knowledge of Gueridon service, flambé.
5. To know about different parts and types of bars and its staff duty.

BHM 605 – HOSPITALITY & TOURISM MARKETING MANAGEMENT
Course Outcomes (CO)

On successful completion of this course, students will be able to:

Learning Outcomes	On completion of this program, the student should be able to:
Demonstrate proficiency in management concepts	<ol style="list-style-type: none"> 1. Demonstrate mastery over domain specific knowledge in various functional areas of management. 2. Analyze and apply various management concepts and theories to facilitate a problem-solving approach. 3. Demonstrate research and technical skills to analyse managerial challenges.
Learning Outcomes	On completion of this program, the student should be able to:
Reflect professional attitude	<ol style="list-style-type: none"> 1. Apply leadership skills to communicate and engage with various stakeholders. 2. Communicate persuasively and clearly in variety of modes. 3. Propose innovative approaches to manage challenges. 4. Formulate business decisions with diverse and multicultural perspectives. 5. Combine un-compromising result orientation with ethical consideration. 6. Optimize resource utilization.

Develop cognitive skills and encourage critical thinking	<ol style="list-style-type: none"> 1. Exhibit critical analysis and understanding of various business issues. 2. Apply a multidisciplinary approach to creative and innovative thinking. 3. Demonstrate the ability to work effectively in a cross-cultural team.
Develop new understanding	<ol style="list-style-type: none"> 1. Anticipate emerging issues and social concerns. 2. Develop the capacity for self-learning. 3. Integrate theories and applications in decision making for global alliances.
Exhibit ethically responsible decision-making behaviour	<ol style="list-style-type: none"> 1. Evaluate and integrate business decisions with an ethical perspective. 2. Anticipate emerging ethical issues and their probable implications.
Fostering Entrepreneurial Attitude	<ol style="list-style-type: none"> 1. Identify and nurture entrepreneurial tendencies necessary to implement innovative business ideas. 2. Generate and write new business plans.
Professional development	<ol style="list-style-type: none"> 1. Manage change through effective communication. 2. Utilize local, national and global business knowledge. 3. Employ social and emotional wisdom. 4. <i>Prove a very high degree of result orientation.</i>

BHM 606 FACILITY MANAGEMENT, PLANNING AND DESIGN – I
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Meaning, understanding & differentiation of facility designing & management
2. Various component of facility planning & designing
3. Star classification criteria for facility planning
4. Role of Kitchen facility planning
5. Kitchen support services facility planning

BHM 609 – Entrepreneurship Development
Course Outcomes (CO)

On successful completion of this course, students will be able to:

- Acquire be self-employed and inculcate a habit of self-earning and maintain a dignified life
- Plan a path for hospitality students to make them successful entrepreneurs in their life and contribute to society
- To understand basic knowledge in the field of entrepreneurship development and give them basic exposure of Govt. policies and assistance
- Describes the roles that new venture creation plays in the economy, defines entrepreneurship and show how three factors – individuals, environments and organizations comes through to create the entrepreneurship event
- Impart the knowledge of the resource based framework i.e. Financial, physical, technological, human and organizational

- Exposed get with franchising opportunity and discuss what elements make a business concepts a legitimate franchise opportunity
- Acquire an effective leadership, quality and effective decision-making.

BHM 608 – MEETING, CONFERENCES & EXHIBITION MANAGEMENT

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the Introduction, Overview of the Mice Industry
2. Describe the role of MICE in the tourism Industry
3. Explain the MICE Destinations and Facilities.
4. To know the Stakeholders of MICE Industry.
5. To learn the types of Events.

BHM 622 – FOOD & BEVERAGE MANAGEMENT & CONTROL-II (Lab)

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To understand about food & beverage outlets, to calculate space requirements, staff requirements and cost.
2. To know the standard operating procedures for food & Beverage Outlets, learn supervisory skills for operating Food & Beverage outlets
3. To know about function catering, how to plan a menu for different types of buffet menu
4. Learn about Gueridon service, flambé & know about different parts and types of bars and its staff duties .

BHM 627 – Food Styling & Presentation – (Lab)]

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. In depth knowledge of Food presentation skills.
2. Apply the various equipments, tools & cooking method in Food styling.
3. Food Styling & presentation in a professional way and learn the art of cooking.
4. Apply the various ideas to present the food and learn the food photography skills.

BCS 601 – Professional Communication Skills

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self-orientation.
2. Showcase their leadership skills with effective team work.
3. Outline the basic etiquettes in expressing their personality individually and in group.

**BSS 604 –Behavioural Science (STRESS AND COPING STRATEGIES)
Course Outcomes (CO)**

On successful completion of this course, students will be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyze symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

**FLF –601 French
Course Outcomes (CO)**

On successful completion of this course, students will be able to:

1. **Identify** and expressin French vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate comprehension** of nuance between script and sound in French
4. **Narrate clearly** ideas, themes in simple standard French

**BHM 701 – Advance Food Production Management- I
Course Outcomes (CO)**

On successful completion of this course, students will be able to:

1. Describe the various type of Advance Indian cuisine.
2. Apply the various equipments According to type of Indian cuisine and type of meal.
3. Present analysis of hotel Industries in a professional way and other kind of functions.

**BHM 702 – Advance Food and Beverage Service Management -I Course Outcomes
(CO)**

On successful completion of this course, students will be able to:

1. **To learn about the restaurant operations.**
2. **To learn to design & formulate a balanced menu & handle supervisory position.**
3. **Learn about the management aspect of the restaurant business.**

**BHM 703 – Advance Front Office Operations Management
I Course Outcomes (CO)**

On successful completion of this course, students will be able to:

1. Understand the Budgeting, TQM, and Forecasting.
2. Develop the Presentation Skills, Interview skills, Management Skills
3. Enhance the communication skills to handle the circumstances.
4. Recall the entire operations and technical functions of front office.

BHM 704 – ADVANCE ACCOMMODATION OPERATION MANAGEMENT - I

I Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Plan and organise housekeeping department
2. Preparation of budget and budgetary control
3. Select the best contract services in housekeeping
4. Develop the Skills of managing staff
5. Apply Ergonomics in housekeeping

BHM 705 – FACILITY MANAGEMENT, PLANNING AND DESIGN – II

I Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To know about the planning process of facility dept.
2. To know about the Kitchen stewarding department and their utility
3. To know about the various Methods used in energy & water conservation
4. To know about the store area in hotels and their planning
5. To know about hotel parking and waste management.

BHM 706 – Human Resource Management

I Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Develop an understanding of Management concepts and its application at work.
2. Learn and be sensitized about HRM frameworks and HRM role in overall management of an organization.
3. Develop an understanding of key HRM theories and processes and how they apply to the world of work.
4. Evaluate, design and formulate various HRM processes such as recruitment, orientation, selection, training, appraisals and reward system, compensation etc
5. Evaluate the developing role and trends of HRM in Hotel Industry.

BHM 707– Customer Relationship Management

I Course Outcomes (CO)

On successful completion of this course, students will be able to:

Learning Outcomes	On completion of this program, participants should be able to:
Demonstrate proficiency in management concepts	<ol style="list-style-type: none">4. Demonstrate mastery over domain specific knowledge in various functional areas of management.5. Analyze and apply various management concepts and theories to facilitate a problem solving approach6. Demonstrate research and technical skills to analyze

	managerial challenges.
Learning Outcomes	On completion of this program, participants should be able to
Reflect professional attitude	<ol style="list-style-type: none"> 1. Apply leadership skills to communicate and engage with various stakeholders 2. Propose innovative approaches to manage challenges. 3. Formulate business decisions with diverse and multicultural perspectives. 4. Combine un-compromising result orientation with ethical consideration. 5. Optimize resource utilization.
Develop cognitive skills and encourage critical thinking	<ol style="list-style-type: none"> 4. Exhibit critical analysis and understanding of various business issues. 5. Apply a multidisciplinary approach to creative and innovative thinking 6. Demonstrate the ability to work effectively in a cross-cultural team.
Develop new understanding	<ol style="list-style-type: none"> 1. Anticipate emerging issues and social concerns. 2. Develop the capacity for self-learning. 3. Integrate theories and applications in decision making for global alliances.
Fostering Entrepreneurial Attitude	<ol style="list-style-type: none"> 3. Identify and nurture entrepreneurial tendencies necessary to implement innovative business ideas. 4. Generate and analyse new business plans.
Professional development	<ol style="list-style-type: none"> 5. Develop an ability of active and empathetic listening. 6. Enhance existing and acquire new competencies for holistic personal development 7. Acquire local, national & global business knowledge. 8. Demonstrate social and emotional maturity.

BHM 708– Bar Management

I Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Explain history of Bar “Types of Bar and Social & Management concerns about alcohols market”.
2. Describe the Bar layout.
3. Learn about Selling techniques in bar.
4. Explain the concepts of Marketing Beverage Operations and Bar Control Systems

BHM 709– Safety & Security Management

I Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the planning for Safety.
2. Describe the Organizing for Safety
3. Explain the types of safety.
4. Explain Industrial Security.

BHM 720– Bakery & Confectionery -V (Lab

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To learn the glossary of bakery terms
2. To know about the raw material of Bakery and Confectionery.
3. To learn about the Bread making methods.
4. To learn the characteristic of a good bread- internal and external.
5. To learn the Cake making Methods.

BHM 721– Advance Food Production Management – I (Lab

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. In depth knowledge of regional Indian cuisine.
2. Apply the various equipments & cooking method according to type of Indian regional cuisine.
3. Present analysis of hotel Industries in a professional way and other kind of function like menu planning, indenting, purchasing and receiving.

BHM 722– Advance Food & beverage Management –I (LAB

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To learn about the set up different tray & trolley set up according to meals.
2. Learn to take order, reservation in restaurant & banquet handling.
3. To service of alcoholic & non-alcoholic beverages & restaurant handling & standard procedures.

BHM 723– Advance Front Office Operation Management lab Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Revise the Property Management Skills, Revenue Management, and TQM.
2. Develop the Skills of handling guests and selling skills.
3. Improve the communication skills to handle the circumstances.
4. Recall the entire operations and technical functions of front office.

BHM 724– ADVANCE ACCOMMODATION OPERATION MANAGEMENT (LAB) - I

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Prepare various formats used in the department.
2. Make budget for the department.
3. Groom for technical interview.

BHM 725– Bar Operation

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To learn the technique to service of alcoholic beverages.
2. To learn the inventory management.
3. How to do menu planning & customer handling.
4. Explain the concepts of Marketing Beverage Operations and Bar Control Systems

BSS 704- Behavioural Science

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- i. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
- ii. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
- iii. Recognize different types of human rights and its importance.
- iv. Identify Indian values taught by different religions.
- v. Identify long term goals and recognize their talent, strengths and styles to achieve them.

BCS 701- Communication Skills

1. Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self-orientation.
2. Showcase their leadership skills with effective team work.
3. Outline the basic etiquettes in expressing their personality individually and in group.

FLF 701-Foreign Language French

- To inform the clients about the services

- To inform the clients about the equipments
- To take an breakfast order on the phone
- To define a professional task
- To indicate an itinerary
- To describe a dish
- To take an order in a restaurant

BSS 704- Behavioural Science

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- vi. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
- vii. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
- viii. Recognize different types of human rights and its importance.
- ix. Identify Indian values taught by different religions.
- x. Identify long term goals and recognize their talent, strengths and styles to achieve them.

BHM 801 – ADVANCE FOOD PRODUCTION MANAGEMENT – II
Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Explain and write various types of appetizers garnishes and sandwiches
2. Acquire knowledge of wines and herbs in cooking, international cuisine, bakery and confectionary products
3. Have knowledge of production management and research development.

BHM 802 – Advance Food & Beverage Management-II
Course Outcomes (CO)

On successful completion of this course, students will be able to:

- Apply the Knowledge of Cellar Management in actual F&B Operations.
- Able to handle manpower and prepare different reports for operations.
- Apply the concepts of Food Waste Management.
- Prevent Food Poisoning during operations by applying the concepts of Food Safety.

BHM 803 – ADVANCE FRONT OFFICE MANAGEMENT - II

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. To understand a comprehensive view of CRM and show them how to successfully implant an enterprise customer focused solution
2. Describe CRM functionality but also gives detailed guidance of how to approach CRM in organization
3. Acquire an excellent study into what defines today's best practices in the CRM industry
4. Classify a CRM approach that is responsive, flexible and personalized to each customer
5. Make use of E-Commerce in CRM

BHM 804 – Advance Accommodation Operation Management II

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Knowledge Care and cleaning of different surface
2. Keys used in hotels and key control procedure
3. Area cleaning and services
4. Routine and records maintained by HK department
5. Coordinate with another department of the hotel

BHM 860 – HOSTILITY AND TOURISM RESEARCH PROJECT

- Writing different types of research proposals and reports
- Constructing the relevant tools of research
- Conduct a research project using appropriate qualitative and quantitative techniques
- Do presentation with the help of tutorial aid
- Evaluate a research report.

BHM 850- On the Job Training /Specilized Training

- (viii) HACCP & hygiene procedures & practices maintained by the department
 - (ix) Recipe standardization & product development
 - (x) Explain the organizational structure of the department
 - (xi) Menu development & designing & requirement for different events, festivals & theme parties.
 - (xii) Describe job description of various job titles, work schedules, opening & closing duties.
 - (xiii) Explain various sections and their functions
 - (xiv) Identify forms/formats, records and registers maintained by department
 - (xv) Know the Help in preparation of various dishes, garnish and service
 - (xvi) Observe food production standards of finished products
 - (xvii) Standard purchase system
-
- (ix) Explain the hierarchy of department
 - (x) How to maintain logbook, cover registrar,
 - (xi) List all reports generated in department (including breakage, cover, sales, inventory, duty rosters, duty Rota etc.)
 - (xii) Menu of different specialized restaurant and bar card
 - (xiii) The total overall operation & planning shift wise
 - (xiv) Layout of different restaurants for different timings
 - (xv) Equipment's specification along with manufactures & pricing
 - (xvi) List of alcoholic beverages along with the brand name, costing, pricing, licenses maintained by hotel.
 - (xvii) Guest handling ,critical situations handling
 - (xviii) Property management system , hotel software
 - (xix) Revenue management , strategies , reports
 - (xx) Presentation skill , grooming , verbal communication
 - (xxi) Front office management , staffing
 - (xxii) Documentation ,logbook , shift handling ,staffing , inter office communication
 - (xxiii) Guest history management feedback handling
 - (xxiv) understand various procedures & functions followed for:-
 - a. reservations
 - b. reception & information
 - c. bell desk
 - d. bails and cash
 - e. guest relations
 - f. night auditing
 - (xxv) Maintain various records & registers and understand their uses.
 - (xxvi) To learn about the different reports maintained by housekeeping department
 - (xxvii) Interior decoration & sizes of the rooms
 - (xxviii)Interior decoration & sizes of the various public areas.
 - (xxix) Various furniture, fixtures & equipment's maintained in Guest rooms & public areas.
 - (xxx) HVAC (heat ,ventilation, air-conditioning) & lighting
 - (xxxi) Provisions & requirements for handicapped room
 - (xxxii) Facilities provided by management for smoking & non-smoking rooms
 - (xxxiii)Understand and explain the organization structure and various sections of the department
 - (xxxiv)Maintain various records and registers (scanned copies of same has to be attached)
 - (xxxv) Pest control chemicals, room cleaning chemicals, guest room supplies, Laundry chemicals , bathroom amenities (Sizes & companies) along with material safety data sheet.



AMITY UNIVERSITY
— R A J A S T H A N —

**Amity School of Hospitality
(ASH)**

Program Code: MTM

Duration – 2 Years Full Time

Programme Structure

Credits Summary

MTTM

(02 Years/04 Semesters)

Program	Semester	Core Credit	Domain Credit	Open Elective/Minor Track	Value Added	Summer Training/ Dissertation	Total Credit
PG	I	20	-	-	4		24
MTTM 2 Years	II	12	6	3	4		25
	III	12	8	3	4	8	35
	IV	9	8	-	-	9	26
	Total	53	22	6	12	17	110

CC = Core Courses

DE = Domain Elective

OE = Open Elective

VA = Value Added Courses

NTCC = Non- Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

1. Familiarize and Interpret theoretical understanding of the tourism concept and process in application.
2. Reflect multidisciplinary approach in decision making, creative & innovative thinking in tourism industry.
3. Analyse and develop leadership skills and behaviours understanding of the organization through various techniques of management and their practical applicability in the field of tourism.
4. Evolve into a future tourism professional with or integrated knowledge of the dynamics of tourism development.

Amity School of Hospitality (ASH)

Program Name: Master in Travel & Tourism Management

FIRST SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MTM 101	Principles of Management	CC	3		-	3
MTM 102	Customer Relationship Management	CC	3		-	3
MTM 103	Sustainable Tourism; Concepts Strategies	CC	3		-	3
MTM 108	Fundamentals of Hospitality Management	CC	3		-	3
MTM 105	Fundamentals of Tourism	CC	3			3
MTM 106	Destinations of India	CC	3			3
MTM 109	Cultural Tourism Resources of India	CC	2			2
BCS 111	Communication Skills – I	VA	1	-	-	1
BSS 111	Behavioral Science – I	VA	1	-	-	1
FLN 101 FLG 101 FLS 101 FLJ 101 FLC 101	Foreign Language – II French German Spanish Japanese Chinese	VA	2	-	-	2
	TOTAL					24

Amity School of Hospitality (ASH)

Program Name: Master in Travel & Tourism Management

SECOND SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MTM 201	International Tourism Management	CC	3		-	3
MTM 202	Marketing of Tourism Services	CC	3		-	3
MTM 204	Travel Agency & Tour Operations	CC	3		-	3
MTM 206	Research Methodology in Tourism	CC	2	1		3
DE Elective: Student has to select 2 course from the list of following DE electives						
MTM E203	Air Travel, Fare & Ticketing	DE	2	1	-	6
MTM E205	Conference & Event Management	DE	2	1	-	
MTM E207	Application of Computers in Tourism	DE	2	1		
BCS 211	Communication Skills – II	VA	1	-	-	1
BSS 211	Behavioural Science - II	VA	1	-	-	1
FLN 201 FLG 201 FLS 201 FLJ 201 FLC 201	Foreign Language – II French German Spanish Japanese Chinese	VA	2	-	-	2
Open Elective		OE	3			3
TOTAL						25

Amity School of Hospitality (ASH)

Program Name: Master in Travel & Tourism Management

THIRD SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MTM 309	Geography & International Tourism	CC	2	1	-	3
MTM 302	Human Resource Management in Tourism	CC	2	-	-	2
MTM 303	Financial Management	CC	2	1	-	3
MTM 304	Economics of Tourism & Hospitality Industry	CC	2	-	-	2
MTM 305	Tourism Destination Management	CC	2	-	-	2
DE Elective : Student has to select 2 course from the list of following DE electives						
MTM 310	Special Interest Tourism	DE	3	1	-	8
MTM 307	Entrepreneurship & Managing of Small business in Tourism	DE	3	1	-	
MTM 308	Tourism Planning & Development	DE	3	1		
BCS 311	Communication Skills – III	VA	1	-	-	1
BSS 311	Behavioural Science - III	VA	1	-	-	1
FLN 301 FLG 301 FLS 301 FLJ 301 FLC 301	Foreign Language – II French German Spanish Japanese Chinese	VA	2	-	-	2
MTM 350	Summer Training (Evaluation)	-	-	-	-	8
Open Elective		OE	3			3
	TOTAL					35

Amity School of Hospitality (ASH)

Program Name: Master in Travel & Tourism Management

FOURTH SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MTM 401	Tourism & Travel Laws	CC	3		-	3
MTM 402	Management Information System & Computers in Tourism	CC	2	1	-	3
MTM 403	Airline & Cargo Management	CC	2	1	-	3
DE Elective: Student has to select 2 course from the list of following DE electives						
MTM 407	Tribal Tourism in India	DE	3	1		8
MTM 408	Tourism Transportation	DE	3	1		
MTM 409	Managing Tour Package & Operations	DE	3	1		
MTM 460	Dissertation / Research Project	CC	-	-	-	9
	TOTAL					26

COURSE OUTCOMES

Masters of Travel & Tourism Management (MTTM)

MTM 101 – PRINCIPLES OF MANAGEMENT

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the effective management skills needed to maximize individual and organizational productivity related to the internal and external environment and issues of ethics and social responsibility;
2. Identify and evaluate social responsibility and ethical issues involved in business situations and logically articulate own position on such issues.
3. Describe the effective management skills needed to maximize individual and organizational productivity related to the internal and external environment and issues of ethics and social responsibility;

MTM 102 – CUSTOMER RELATIONSHIP MANAGEMENT

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Develop an understanding of the terms and benefits of CRM on a company's bottom line.
2. Discuss the importance of relevance, respect, credibility, and value in the relationship management process.
3. Analyze the different components of a CRM Plan.

MTM 103 – Sustainable Tourism, concepts, strategy

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe Eco- Tourism
2. Explain eco- tourism venues and impacts
3. Develop plan for eco- tourism destination
4. Appreciated the importance of Sustainable Sites in Tourism.

MTM 105 – Fundamentals of Tourism

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the Introduction of Fundamentals of Tourism.
2. Explain Tourism Products & Attractions.
3. Explain Types and forms of Tourism.
4. Explain present scenario of Indian Tourism Industry.
5. Describe the study of International Tourism Organisations.

MTM 106 – Destinations of India

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- Describe the background and concepts behind Tourism Product Development.
- Explain the products under Destination designing and management.
- Develop knowledge about different destinations of India.

MTM 108 – Fundamental of Hospitality Management

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Describe the hospitality Industry.
2. Explain the classification of Hotels.
3. Describe different departments of hotels.
4. Describe Marketing of Hotels.

MTM 109 – Cultural Tourism Resource of India

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. To get familiar with the Indian Culture.
2. Explain the religions of India.
3. Describe the art & culture Heritage of India.
4. Describe architectural Heritage of India.
5. Describe museums and art gallery if India.

FLS 101 Spanish

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

BCS 111 –Communication Skills

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self orientation.
2. Showcase their leadership skills with effective team work.
3. Outline the basic etiquettes in expressing their personality individually and in group.

BSS 111 –Behavioural Science

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyze symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

MTM 201 – INTERNATIONAL TOURISM MANAGEMENT

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Importance of international tourism, Growth of international tourism
2. Factors influencing growth of IT, Tourism market of India.
3. WTO promotion, Role of multinational sector in growth of IT

MTM 202 – Marketing of Tourism Services

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the core concepts of Marketing.
2. Explain Market segmentation and practice.
3. Develop Marketing strategies.
4. Appreciated the importance of branding & understand the various functions of packaging.

MTM 204 – Travel agency and tour operations

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe travel business
2. Prepare tour costing sheet
3. Develop Itinerary development
4. Develop tour package

MTM 206 – Research Methodology in Tourism

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Analyse the probability and probability distribution
2. Select and implement the probability theory, make use of sampling and draw inferences
3. Calculate the multiple correlation and regression.
4. Apply different hypothesis testing techniques.
5. Investigate data conditions used for different sampling distributions.

MTM 213 – AIR TRAVEL, FARE & TICKETING

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the Transportation & its importance along with its branches.
2. Explain the role of IATA/UFTAA / IATA codes
3. To learn about Fare construction, Fare calculation and ticketing
4. To learn about Baggage Rules for airlines transport

MTM 215 – Conference & Event Management

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Introduction of Event operation in Tourism
2. Organization & logistic of MICE

3. Sales & tourism promotion of MICE.
4. Role of various promotional government & non- government organization organizations
5. Usage of various technologies in Event industry

MTM 217 – Application of Computers in Tourism

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

- 1) Explore the world of Computers and Computer technology and its applications.
- 2) Define the basic concept of operating system.
- 3) Implement the application of word Processor, Databases.
- 4) Understanding the basic concepts of Amadeus information System and PNR.
- 5) Demonstrate the application of Computer in the field of travel & tourism industry.

FLS 201 Spanish

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish
4. **Narrate** clearly ideas, themes in simple standard Spanish

BSS 211 – Behavioural Science [Behavioral Communication and Relationship Management]

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Demonstrate an understanding of interpersonal skills as part of effective communication processes.
2. Identify the effects of behaviour on interpersonal communication
3. Demonstrate a range of effective interpersonal communication skills
4. Use assertiveness and interpersonal skills in the workplace team
5. Utilise effective communication skills to build strong relationships
6. Develop, implement and promote effective communication techniques

BCS 211 – Professional Communication Skills

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while choosing the appropriate channel of formal communication
3. Apply acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the ease of using appropriate medium of communication.

MTM 301 – WORLD TOURISM RESOURCES

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Describe introduction to Physical and Material Tourism resources
2. Explain Planning and managing of natural and manmade Tourist Resources
3. Explain World Tourism Resources and their types
4. Explain Successful case example of Tourist Destinations
5. Develop the plan for A comparative analysis of World Tourism Resources with specific reference to India

MTM 302 – Human Resource Management

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Learn and be sensitized about HRM frameworks and HRM role in overall management of an organization.
2. Develop an understanding of key HRM theories and processes and how they apply to the world of work.
3. Look at numerous HRM issues, their causes, and what strategies should be implemented to achieve solutions.
4. Evaluate, design and formulate various HRM processes such as recruitment, orientation, selection, training, appraisals and reward system, compensation etc
5. Evaluate the developing role and trends of HRM in global arena

MTM 303 – Financial Management

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Understand the concepts and importance of financial management
2. Understand the procedures and their application related to working capital management in a business
3. Understand the procedures and their application related to Capital budgeting in a business
4. Understand the procedures and their application related to Capital structure & leverage in a business
5. Acquaint with the short term and long term financing decision in a business

MTM 304 – Economics of Tourism and Hospitality Industry

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Apply the economic approach to individual and business decisions.
2. Analyze the forces of demand and supply and price mechanism in the market place.
3. Estimate the business implications of changes in product price, consumer income and price of substitutes/complements.
4. Analyze the output and cost behaviour in short and long run.
5. Identify nature and intensity of competition in different types of market.

MTM 305 – TOURISM DESTINATION MANAGEMENT

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

- CO1 Describe Planning in Tourism
- CO2 Explain Destination choices, experience and the effects of Tourism
- CO3 Explain Tourism Policies and Annual Plan
- CO4 Develop the plan for Destination Development
- CO5 Develop the plan for the Marketing Tourist Destination

MTM 306 – Hospitality Management

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Describe the hospitality Industry.
2. Explain the classification of Hotels.
3. Describe different departments of hotels.
4. Describe Marketing of Hotels.
5. Explain Human resource planning.
6. Explain environmental management in hospitality industry.

MTM 308 – Tourism Planning and Development

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

1. Describe the Tourism Definitions and Impacts of Tourism and Tourism Relationship.
2. Understand the Various Tourism Planning.
3. Develop Tourism Planning assessment and Planning Strategic Process.
4. Learn Planning Process, concepts, and principles.

BCS 111 English

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- 1. Identify** the basic elements of grammar required for good and effective communication.
- 2. Interpret and discuss** key ideas, themes, and aesthetic modalities related to diction and communication.
- 3. Explain** how the ideas, themes and modalities arose within a given professional context.
- 4. Develop** Creative & Literary Sensitivity in all communication.
- 5. Design** and create texts for a variety of purposes and audiences, evaluating and assessing the effectiveness of grammatical aspects.

BSS 111 Behavioural Science UNDERSTANDING SELF FOR EFFECTIVENESS

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- i. Demonstrate awareness of self and the process of self-exploration.
- ii. Demonstrate knowledge of strategies for developing a healthy self-esteem.
- iii. Recognize the importance of attitudes and its effect on personality.
- iv. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FLS 301 Foreign Language French

Course Outcomes (CO)

On successful completion of this course, students will be able to:

- You understand French texts and express themselves in standard French eventually to evolve into potential language instructors

- You acquire general and domain specific vocabulary and skills (Eg. Tour Management French, Translation-Interpretation)

MTM 401 – TRAVEL AND TOURISM LAWS

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Analyse and apply foundational knowledge, and solve problems of both practical and theoretical nature.
2. Investigate and evaluate new technologies and their applications;
3. Utilize a variety of tools, techniques and apply knowledge of computing to real world problems;
4. Obtain employment as legal advisor in local and global industries and organization, where they are competent in applying the fundamental knowledge, computational principles and skills in professional life.

MTM 402 – MANAGEMENT INFORMATION SYSTEM AND COMPUTERS IN TOURISM

Course Outcomes (CO)

On successful completion of this course, students will be able to:

1. Describe the core concepts of Marketing.
2. Explain Market segmentation and practice.
3. Develop Marketing strategies.
4. Appreciated the importance of branding & understand the various functions of packaging.
5. At the successful completion of this course the student should be able to:
 - 1 Introduction to internet and its services.
 2. Basic knowledge of networking.
 3. Basic knowledge of networking.

MTM 403 – AIR & CARGO MANAGMENT

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

- 6. Describe introduction to International Regulation**
- 7. Explain Emergency Evacuation system**
- 8. Explain International and Domestic Baggage Regulations, piece & weight concept**
- 9. Explain Successful case example Airline merger's and acquisitions, customer service, low cost carriers vs full service airlines**
- 10. Develop the plan for cargo companies, In co terms, Air Cargo – Introduction, Documentation 2.4 Relationship between course and program learning outcomes and assessments**

MTM 404 – Tourism Products: Design & Development

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

- Describe the background and concepts behind Tourism Product Development.
- Explain the stages in Destination designing and management.
- Develop different types of Tourism Products.

MTM 405 – Tourism Behaviour

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

Describe the tourism behaviour and Consumer behaviour.

Explain Organizational buyer Behaviour of Group Market, Buying Process, Market Structure and Demand.

Describe organizational buying decisions, Problem Recognition.

Describe Market Segmentation.

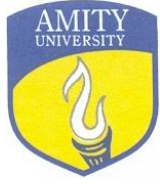
MTM 460 Dissertation / Research Project

Course Outcomes (CO)

On successful completion of this course, students will be able

to:

- A short account of the activities that were undertaken as part of the project;
- A statement about the extent to which the project has achieved its stated goals.
- A statement about the outcomes of the evaluation and dissemination processes engaged in as part of the project;
- Any activities planned but not yet completed as part of the project, or as a future initiative directly resulting from the project;
- Any problems that have arisen that may be useful to document for future reference.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Bachelor of Technology (B.Tech.)

Programme Outcome (PO)

PO1: To apply the knowledge of science and engineering fundamentals.

PO2: To create, select and apply appropriate techniques, resources, modern engineering and IT tools.

PO3: To apply reasoning informed by the contextual knowledge and to assess societal, health and safety related issues as well as legal and cultural issues.

PO4: To apply knowledge in techno- entrepreneurship based industries.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY
(ASET)**

Bachelor of Technology

(Information Technology)

Programme Code: BIT

12053

Duration – 4 Years Full Time

Programme Structure

Credits Summary

Semester	Core Courses (CC)	Domain Electives (DE)	Value Added Courses (VA)	Non-Teaching Credit Courses (NTCC)	Open Electives (OE)	Anandam	Total
1	22	-	04	00	-	02	28
2	24	-	04	01	03	02	34
3	15	04	04	00	03	02	28
4	14	04	04	00	03	02	27
5	12	04	04	05	03	02	30
6	14	04	04	00	03	02	27
7	07	04	04	04	03	02	24
8	11	-	-	15	-		26
Total	119	20	28	25	18	14	224

Total Credit=119+20+28+25+18+14=224

CC= Core Course, DE=Domain Elective, OE= Open Elective, VA=Value Added Course, NTCC=Non-Teaching Credit Courses

Program Specific Outcomes (PSOs)

1. Students will be able to demonstrate role of Computer Science in the following core knowledge areas
 - Algorithms, Data Structures and Databases
 - Programming Languages and Compilers
 - Software Engineering and Development
 - Computer Hardware and Architecture
 - Data Communication and Computer Networks
2. Students will be able to analyze role of computer science and information technology, with mainstay in mathematics, basic sciences and engineering fundamentals.
3. Students will apply problem solving strategies to a range of modern computing paradigms related to computer programming, data intensive technologies, distributed and cloud computing, computational techniques.
4. Students will gain experiential learning on developing techno-commercially feasible and socially acceptable computing solutions to real world engineering problems thorough internship and projects, in industry.
5. Students will recognize the role of technological advances impacting society and the social, legal, ethical, cultural and communicative implications of computer technology and their usage.

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(IT)

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics - I – Fields & Waves	CC	2	1	-	3
BME 103	Engineering Mechanics	CC	2	1	-	3
BCS 104	Introduction to Computers & Programming in C	CC	2	1	-	3
BEE 105	Basic Electrical Engineering	CC	2	1	-	3
BME 106	Engineering Graphics	CC	1	-	-	1
Practical Courses						
AP 122	Applied Physics - I lab	CC	-	-	2	1
BME 123	Engineering Mechanics Lab	CC	-	-	2	1
BCS 124	Programming in C Lab	CC	-	-	2	1
BEE 125	Basic Electrical Engineering Lab	CC	-	-	2	1
BME 126	Engineering Graphics Lab	CC	-	-	2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I(Understanding Self for Effectiveness)	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language – I French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
Total						28

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(IT)

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM 201	Applied Mathematics – II	CC	3	1	-	4
AP 202	Applied Physics - II – Modern Physics	CC	2	1	-	3
AC 203	Applied Chemistry	CC	2	1	-	3
BCS 204	Data Structures Using C	CC	2	1	-	3
BME 205	Elements of Mechanical Engineering	CC	2	1	-	3
BCS 206	Domain Workshop/Seminar	NTCC	-	-	-	1
EVS 001	Environmental Studies	CC	4	-	-	4
Practical Courses						
AP 222	Applied Physics – II Lab	CC	-	-	2	1
AC 223	Applied Chemistry Lab	CC	-	-	2	1
BCS 224	Data Structures Using C Lab	CC	-	-	2	1
BME 225	Elements of Mechanical Engineering Lab	CC	-	-	2	1
Open Elective						
	OPEN ELECTIVE- 1	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioural Science – II (Problem solving and Creative Thinking)	VA	1	-	-	1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND002	Anandam-II	NTCC	-	-	-	2
Total						34

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY(ASET)

Program Name: B.Tech.(IT)

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM 301	Applied Mathematics – III	CC	2	1	-	3
BCS 302	Database Management Systems	CC	2	1	-	3
BCS 303	Operating Systems with Unix	CC	2	1	-	3
BCS 304	Object Oriented Programming using C++	CC	2	1	-	3
Practical Courses						
BCS 322	Database Management Systems lab	CC	-	-	2	1
BCS 323	Operating Systems with Unix lab	CC	-	-	2	1
BCS 324	Object Oriented Programming using C++ lab	CC	-	-	2	1
Domain Elective-I : Choose any ONE from the following courses along with corresponding labs						
BCS 305	Digital Electronics	DE	2	1	-	3
BCS 306	Website Design	DE				
BCS 325	Digital Electronics lab	DE	-	-	2	1
BCS 326	Website Design Lab	DE				
Open Elective Course						
	OPEN ELECTIVE- 2	OE	3	-	-	3
Value Added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science – III (Interpersonal Communication)	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language – III French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND003	Anandam-III	NTCC	-	-	-	2
Total						28

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(IT)

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BIT 401	Management Information System	CC	3		-	3
BCS 402	Discrete Mathematics	CC	2	1	-	3
BCS 403	Computer Graphics	CC	2	1	-	3
BCS404	Data Communication & Computer Networks	CC	2	1	-	3
Practical Courses						
BCS 423	Computer Graphics Lab	CC	-	-	2	1
BCS 424	Data Communication & Computer Networks Lab	CC	-	-	2	1
Domain Elective-II : Choose any one from the following courses						
BCS 405	Hypertext Preprocessor (PHP)	DE	2	1	-	3
BCS406	E-Commerce and ERP	DE	4	-	-	4
BCS 425	PHP Lab	DE	-	-	2	1
Open Elective Courses						
	OPEN ELECTIVE-3	OE	3	-	-	3
Value Added Courses						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 404	Behavioural Science – IV	VA	1	-	-	1
FLT 401	Foreign Language – IV French	VA	2	-	-	2
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
Non-Teaching Credit Course (NTCC)						
AND004	Anandam-IV	NTCC	-	-	-	2
Total						27

PRACTICAL TRAINING – I: 6 – 8 WEEKS

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY

Program Name: B.Tech.(IT)

FIFTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BCS 502	Software Engineering	CC	2	1	-	3
BCS 503	Computer Architecture	CC	2	1	-	3
BCS 504	Java Programming	CC	3	-	-	3
BIT 550	Internship - I (Evaluation)	NTCC	-	-	-	5
Practical Courses						
BCS 522	Software Engineering Lab	CC	-	-	2	1
BCS 523	Computer Architecture Lab	CC	-	-	2	1
BCS 524	Java Programming Lab	CC	-	-	2	1
Domain Elective-III : Choose any ONE from the following courses along with their corresponding labs						
BCS 505	Python Programming	DE	2	1	-	3
BCS 506	Advance Networking	DE	2	1	-	3
BCS 525	Python Programming Lab	DE	-	-	2	1
BCS 526	Advance Networking Lab	DE	-	-	2	1
Open Elective Courses						
	OPEN ELECTIVE- 4	OE	3	-	-	3
Value Added Courses						
BCS 501	Communication Skills - III	VA	1	-	-	1
BSS 504	Behavioural Science -V (Group Dynamics and Team Building)	VA	1	-	-	1
FLT 501 FLG 501 FLS 501 FLC 501	Foreign Language - V French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND005	Anandam-V	NTCC	-	-	-	2
Total						30

PRACTICAL TRAINING – II: 6 – 8 WEEKS**AMITY SCHOOL OF ENGINEERING AND
TECHNOLOGY (ASET)****Program Name: B.Tech.(IT)****SIXTH SEMESTER**

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BCS 602	Software Testing & Quality Assurance	CC	3	-	-	3
BCS 603	Analysis and Design of Algorithm	CC	2	1	-	3
BCS 604	Microprocessor	CC	2	1	-	3
BIT605	Computer Oriented Numerical Methods	CC	2	1	-	3
Practical Courses						
BCS 622	Software Testing and Quality Assurance Lab	CC	-	-	2	1
BCS 624	Microprocessor Lab	CC	-	-	2	1
Domain Elective-IV : Choose any ONE from the following courses along with their corresponding labs						
BCS 606	Advanced Java Programming	DE	2	1	-	3
BCS 607	Software Project Management	DE	2	1	-	3
BCS 608	Cloud Computing	DE	2	1	-	3
BCS 626	Advanced Java Programming Lab	DE	-	-	2	1
BCS 627	Software Project Management Lab	DE	-	-	2	1
BCS 628	Cloud Computing Lab	DE	-	-	2	1
Open Elective Course						
	OPEN ELECTIVE- 5	OE	3	-	-	3
Value Added Courses						
BCS 601	Communication Skills – IV	VA	1	-	-	1

BSS 604	Behavioral Science – VI (Stress and Coping Strategies)	VA	1	-	-	1
FLT 601 FLG 601 FLS 601 FLC 601	Foreign Language – VI French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND006	Anandam-VI	NTCC	-	-	-	2
Total						27

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(IT)
SEVENTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BIT 701	Internet of Things (IoT)	CC	2	1	-	3
BCS 703	Information Storage & Management (EMC ²)	CC	3	-	-	3
BIT 750	Internship - II(Evaluation)	NTCC	-	-	-	4
Practical Courses						
BIT 721	Internet of Things (IoT) Lab	CC	-	-	2	1
Domain Elective-V : Choose any ONE from the following courses along with their corresponding labs						
BCS 702	Artificial Intelligence	DE	2	1	-	3
BIT 702	Operations Research	DE	2	1	-	3
BCS 705	Programming with ASP.Net	DE	2	1	-	3
BCS 706	Mobile Computing	DE	3	1	-	4
BCS 707	Data Warehousing & Data Mining	DE	2	1	-	3
BCS 722	Artificial Intelligence Lab	DE	-	-	2	1
BIT 722	Operations Research Lab	DE	-	-	2	1
BCS 725	Programming with ASP.Net Lab	DE	-	-	2	1
BCS 727	Data Warehousing & Data Mining Lab	DE	-	-	2	1
Open Elective Course						
	OPEN ELECTIVE- 6	OE	3	-	-	3
Value Added Courses						
BCS 701	Communication Skills - V	VA	1	-	-	1
BSS 704	Behavioural Science - VII (Individual, Society and Nation)	VA	1	-	-	1
FLT 701	French	VA	2	-	-	2
	German					
FLS 701	Spanish					
FLC 701	Chinese					
Non-Teaching Credit Course (NTCC)						
AND007	Anandam-VII	NTCC	-	-	-	2
Total						24

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(IT)

EIGHTH SEMESTER

SEMESTER VIII

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BCS 801	Soft Computing	CC	2	1	-	3
BCS 802	Cryptography & Network Security	CC	2	1	-	3
BCS 803	Digital Image Processing	CC	2	1	-	3
BIT 860	Project	NTCC	-	-	-	15
Practical Courses						
BCS 821	Soft Computing in MATLAB Lab	CC	-	-	2	1
BCS 823	Digital Image Processing Lab	CC	-	-	2	1
Total						26

Note:-

CC - Core Course,
VA - Value Added Course,
OE - Open Elective,
DE - Domain Elective,
FW - Field Work

COURSE OUTCOMES

APPLIED MATHEMATICS - I

Course Code: AM 101

CreditUnits: 04

At the successful completion of this course you (the student) should be able to:

1. Investigate the basic concept and applications of differential and integral Calculus.
2. Apply Leibnitz's theorem, Taylor's theorem and mean value theorems.
3. Calculate asymptotes, curvature, tangents & normals, maxima & minima, partial derivatives and approximate calculation of a function.
4. Find the length, area, volumes and solid of revolution using integration
5. Create an interest in finding the solution of problem, length, area, volume etc of the curve and application of Vector calculus.
6. Recognize and solve the ordinary differential equations.

APPLIED PHYSICS - I - FIELDS AND WAVES

Course Code: AP 102

CreditUnits: 03

By the end of the session students should be able to:

1. Define the various terms and principles involved in SHM
2. Explain plane progressive and ultrasonic waves
3. Explain and interpret the wave nature of light
4. Apply the various concepts of vector analysis to situations of practical interest
5. Calculate the value of electric field and magnetic field component by using the Maxwell's equations.

ENGINEERING MECHANICS

Course Code: BME 103

CreditUnits: 03

- 1: Able to analyse the force system and its effects.
- 2: Explain the nature of forces acting upon a system.
- 3: Evaluate the static and dynamic system's problem

INTRODUCTION TO COMPUTERS AND PROGRAMMING IN C

Course Code: BCS 104

CreditUnits: 03

It is expected that by the end of the course, students will be comfortable in -

1. Attempting algorithmic solutions to problems
2. Designing and coding moderate sized programs running to the order of a few hundred lines of code, and
3. Reading, understanding and modifying code written by others.

BASIC ELECTRICAL ENGINEERING

Course Code: BEE 105

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Develop a practical approach for analysis of resistive circuits and solution of resistive circuits with independent sources.
2. Able to apply two terminal element relationships for inductors and capacitors in an electrical network.
3. Capable of analysis of single phase AC circuits, the representation of alternating quantities and determining the power in these circuits.
4. To acquire the knowledge about the constructional concepts & working principles for the applications of DC machines, AC machines & measuring instruments.
5. Able to identify, formulate, and solve the electrical engineering problems.

ENGLISH

Course Code: BCS 101

CreditUnits: 01

At the successful completion of this course you (the student) should be able to:

1. Participate in conversation and in small- and whole-group discussion
2. Explore and use English as medium of communication in real life situation
3. Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
4. Identify features of a reading textbook and utilize them as needed
5. Prepare and deliver organized presentations in small groups and to whole class
6. Apply sentence mechanics and master spelling of high frequency words

BEHAVIOURAL SCIENCE - I (UNDERSTANDING SELF FOR EFFECTIVENESS)

Course Code: BSS 104

CreditUnits: 01

At the successful completion of this course you (the student) should be able to:

- i. Demonstrate awareness of self and the process of self-exploration.
- ii. Demonstrate knowledge of strategies for developing a healthy self-esteem.
- iii. Recognize the importance of attitudes and its effect on personality.
- iv. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FRENCH - I

Course Code: FLT 101

CreditUnits: 02

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

GERMAN - I

Course Code: FLG 101

CreditUnits: 02

At the successful completion of this course you should be able to:

1. **Identify** and **express** in German vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in German
4. **Narrate** clearly ideas, themes in simple standard German

SPANISH – I

Course Code: FLS 101

CreditUnits: 02

5. After successful completion of the course, students will be able to perform verbally and in writing certain social functions. Students will develop five language skills: reading, writing, listening, speaking & interacting with the Spanish & the Spanish speakers whom they come across in their daily or professional life in respect of
6. Students will be able to perform communicative tasks (oral and written) like:
7. -Self introduction
8. -Possessions.
9. -Family/friend description with verbs like SER/ESTAR/TENER/HAY
10. - Regular AR/ER/IR ending verbs conjugations
11. -Interrogative words

CHINESE – I

Course Code: FLC 101

Credit Units: 02

At the successful completion of this course, you will be able to:

1. **Read, write and speak approx. 50** new Chinese words and understand basic grammar points.
2. **Interpret** words, phrases and sentences of day today conversation related to greeting/farewell and personal information like name age, residence, family etc.
3. **Write** Chinese characters, simple sentence and a paragraph on Self Introduction.
4. **Communicate** with Chinese speaking people using words, phrases and sentences related to greeting, farewell and personal information like name age, residence family etc.

APPLIED MATHEMATICS - II

Course Code: AM 201

Credit Units: 04

List the course learning outcomes (CLO) that prescribe the knowledge, attitudes, skills and practices that students are expected to acquire and demonstrate in completing this course.

At the successful completion of this course you (the student) should be able to:

1. Investigate the basic concept about Linear Algebra and Probability.
2. Create an interest in finding the solution of Linear equations and Probability.
3. Apply basic concepts of Linear Algebra to define the consistent and inconsistent system, and Probability operations to solving problems.

Develop the formulation of linear equation their existence, eigen value and eigen vector etc. as well as about basic discrete and continuous distributions and their applications.

APPLIED PHYSICS - II - MODERN PHYSICS

Course Code: AP 202

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

- 1) Define and understand space and time and the variations in other related fundamental quantities such as mass, velocity and force.
- 2) Solve simple problems relating to the above concepts.
- 3) Explain by extending the understanding as laid down in Quantum theory to other phenomenon as observed in sub-atomic Physics and also to solve simple problems in Quantum Theory
- 4) Appreciate and understand the various spectra as observed during electronic transitions
- 5) Understand the way nature has endowed properties to materials.

APPLIED CHEMISTRY

Course Code: AC 203

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Understand the structure and chemical transformations of molecules.
2. Understand the application of chemical process in industries.

Basic idea about water treatment, lubrication, corrosion, fuel, spectroscopy etc.

DATA STRUCTURES USING C

Course Code: BCS 204

CreditUnits: 03

Upon successful completion of this course, students should be able to-:

1. Explain the systematic methods of efficiently organizing and accessing data in data structures and algorithms.
2. Identify the properties and structural patterns in data structures.
3. Apply abstract data types to the design of data structures.
4. Analyse algorithms using a mathematical notation and experimental studies.
5. Perform comparative analysis of the typical data structures and algorithms.
6. Design and Analyse recursive algorithms in data structures.

Write code in pseudocode and high-level programming languages for the implementation of various data structures and algorithms.

ENVIRONMENTAL STUDIES

Course Code: EVS 001

Credit Units: 04

At the successful completion of this course you (the student) should be able to:

1. Understand the importance, need and scope of the subject.
2. Evaluate local, regional and global environmental topics related to resource use and management.
3. Measure environmental variables and interpret results.
4. Interpret the results of scientific studies of environmental problems and propose solutions to these.
5. Implement “Sustainable development”, in day to day activities.

ELEMENTS OF MECHANICAL ENGINEERING

Course Code: BME 205

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate – Basic machines used in the field of mechanical engineering
2. Create – Mathematical models of fundamental physical phenomenon and apply them to predict the behaviour of engineering systems
3. Apply – this knowledge to analyse the working of IC Engines, Steam Turbines, Lathe machines etc.
4. Develop – Ability to perform and conduct basic experiments and evaluate the results of the same.

ENGLISH

Course Code: BCS 201

Credit Units: 01

At the successful completion of this course you (the student) should be able to:

1. Identify essentials components of language
2. Make inferences and predictions about spoken discourse
3. Develop Creative & Literary Sensitivity in global situation
4. Identify features of a reading textbook and utilize them as needed
5. Explore and use English as medium of communication in real life situation

BEHAVIOURAL SCIENCE - II (PROBLEM SOLVING AND CREATIVE THINKING)

Course Code: BSS 204

CreditUnits: 01

At the successful completion of this course you (the student) should be able to:

- i. Demonstrate awareness of self and the process of self-exploration.
- ii. Demonstrate knowledge of strategies for developing a healthy self-esteem.
- iii. Recognize the importance of attitudes and its effect on personality.
- iv. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FRENCH - II

Course Code: FLT 201

Credit Units: 02

At the successful completion of this course you should be able to:

1. **Identify** and **express** in French vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in French
4. **Narrate** clearly ideas, themes in simple standard French

GERMAN – II

Course Code: FLG 201

Credit Units: 02

At the successful completion of this course you should be able to:

1. **Identify** and **express** in German vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in German
4. **Narrate** clearly ideas, themes in simple standard German

SPANISH – II

Course Code: FLS 201

Credit Units: 02

At the successful completion of this course you should be able to:

1. **Identify** and **express** in Spanish vocabulary and grammar norms

2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish
4. **Narrate** clearly ideas, themes in simple standard Spanish

CHINESE – II

Course Code: FLC 201

Credit Units: 02

At the successful completion of this course you should be able to:

At the successful completion of this course, you will be able to:

1. **Read, write and speak approx. 100** New Chinese words and understand basic grammar points.
2. **Interpret** words, phrases and sentences of day today conversation related to hobbies and abilities, gratitude, apology and welcome, time, weather and directions
3. **Write** Chinese characters, simple sentence and a paragraph on simple topic like 'Self Introduction' and dialogue writing on "Conversation between two friends exchanging Personnel Information".
4. **Communicate** with Chinese speaking people using words, phrases and sentences related to hobbies and abilities. Express gratitude, apology and welcome.

DATABASE MANAGEMENT SYSTEMS

Course Code: BCS 302

Credit Units: 03

At the successful completion of this course, the student should be able to:

- Investigate about what is database, different types of databases, and why they are valuable assets for decision making.
- Analyse and critically evaluate the importance of various keys and importance of ER Modelling with relationship in ER diagram and Normalization.
- Analyse transaction and Implement to create the SQL query in a database and to extract useful information.
- Develop a set of queries to handle a specified set of typical user inquiries for information extraction from the database through SQL.

OPERATING SYSTEMS WITH UNIX

Course Code: BCS 303

Credit Units: 03

1. Students will be able to identify the role of Operating System. To understand the design of control unit.
2. Students will be able to analyse and understanding CPU Scheduling, Synchronization, Deadlock Handling and Comparing CPU Scheduling Algorithms. Solve Deadlock Detection Problems.
3. Students will be able to describe the role of paging, segmentation and virtual memory in operating systems.

4. Students will be able to understand description of protection and security and also the Comparison of UNIX and Windows based OS.
5. Students will be able to understand the concept of Defining I/O systems, Device Management Policies and Secondary Storage Structure and Evaluation of various Disk Scheduling Algorithms.

OBJECT ORIENTED PROGRAMMING USING C++

Course Code: BCS 304

CreditUnits: 03

It is expected that by the end of the course, students will be comfortable in –

1. Understand object-oriented programming and advanced C++ concepts.
 - a. Be able to explain the difference between object-oriented programming and procedural programming.
 - b. Be able to program using more advanced C++ features such as composition of objects, operator overloads, dynamic memory allocation, inheritance and polymorphism, file I/O, exception handling, etc.
 - c. Be able to build C++ classes using appropriate encapsulation and design principles.
2. Improve your problem-solving skills
 - a. Be able to apply object oriented or non-object-oriented techniques to solve bigger computing problems.
 - b. Goal: to make you a good programmer. Apply methods to analyse running time of essential data structures and estimate efficiency of the algorithms and implementations.

APPLIED MATHEMATICS - III

Course Code: AM 301

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate the basic concept about partial differential equations.
Create an interest in finding the solution by Fourier Series and Fourier
2. Transforms.
3. Apply basic concepts of Laplace Transformation.
4. Develop the physical problems using optimization techniques.

DIGITAL ELECTRONICS

Course Code: BCS 305

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Identify and explain fundamental concepts of digital logic design including basic and universal gates, number systems, binary coded systems, basic components of combinational and sequential circuits and concept of logic families.
2. Use the acquired knowledge to apply techniques related to the design and analysis of digital electronic circuits including Boolean algebra and multi-variable Karnaugh map methods.
3. Analyze small-scale combinational and sequential digital circuits.
4. Synthesize small-scale combinational and synchronous sequential digital circuit using Boolean algebra and K-maps.

WEBSITE DESIGN

Course Code: BCS 406

CreditUnits: 03

Program Outcome of this course (POs)

1. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
2. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

COMMUNICATION SKILLS - I

Course Code: BCS 301

Credit Units: 01

At the successful completion of this course the student should be able to:

1. Inculcating creative thinking skills
2. Construct and showcase their communication skills in a creative manner.
3. Comprehending and demonstrating ways of self introduction
4. Outlining and illustrating presentation Skills

FRENCH - III

Course Code: FLT 301

Credit Units: 02

At the successful completion of this course you should be able to:

1. **Identify** and express in French vocabulary and grammar norms
 2. **Interpret** different types of texts as well as cultural ideas and themes.
 3. **Demonstrate comprehension** of nuance between script and sound in French
- **Narrate clearly** ideas, themes in simple standard French

GERMAN - III

Course Code: FLG 301

Credit Units: 02

After successful completion of the course, the students will be able perform orally and in writing certain social functions:

1. Students will be able to ask and tell time.
2. Students will be able to frame sentences using Separable verb.
3. Student will be able to write and speak sentences using modal verb.
4. Students will be able to frame sentences and speak using was/were/had.

SPANISH – III

Course Code: FLS 301

Credit Units: 02

After successful completion of the course, students will be able to perform orally and in writing certain social functions:

Students will be able to perform communicative tasks (oral and written) with proficiencies in,

- a) Introduction of stem changing irregular verbs
- b) Introduction of prepositions (Cerca de/ lejos de/ encima de etc.)
- c) Present continuous tense (**Estar+ gerundio**)
- d) Introduction of third person verbs Gustar/Parecer/Encantar/ Doler (to like/ to seem like/ to enchant/ to hurt.) etc
- e) Interrogatives – How much/ How many
- f) Introduction of irregular verbs.
- g) Immediate future plans (Ir a + verbo)

MANAGEMENT INFORMATION SYSTEM

Course Code: BIT 401

Credit Units: 03

- h) At the successful completion of this course you (the student) should be able to:
- i) 1. Explain basic concepts for IT/IS management
- j) 2. Discuss organizational, business and strategic issues surrounding IT/IS, and
- k) 3. Analyse and evaluate uses of strategic IT/IS in practice.

DISCRETE MATHEMATICS

Course Code: BCS 403

Credit Units: 03

After completing this course, students will be able to:

- a. Proof and logics
- b. Set, relations.
- c. Formulate Lattices as partially ordered sets, their properties
- d. Join and meet irreducible elements of a lattice and introduction to Boolean algebra.
- e. Understand some basic properties of Boolean algebra to solve problem by different method and definition of graphs.

COMPUTER GRAPHICS

Course Code: BCS 404

CreditUnits: 03

At the successful completion of this course you (the student) should be able to:

- 1. Investigate the structure of modern computer graphics systems**
- 2. Create key algorithms for rasterize, modelling and rendering graphical data**
- 3. Apply experience in constructing interactive computer graphics programs**
- 4. Develop design and problem-solving skills with application to computer graphics**

DATA COMMUNICATION AND COMPUTER NETWORKS

Course Code: BCS405

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Evaluate storage architectures and key data center elements in classic, virtualized and cloud environments
2. Explain physical and logical components of a storage infrastructure including storage subsystems, RAID and intelligent storage systems
3. Describe storage networking technologies such as FCSAN, IP-SAN, FCoE, NAS and object-based, and unified storage
4. Understand and articulate business continuity solutions – backup and replications, along with archive for managing fixed content
5. Explain key characteristics, services, deployment models, and infrastructure components for a cloud computing
6. Describe information security requirements and solutions, and identify parameters for managing and monitoring storage infrastructure in classic, virtualized and cloud environments

HYPERTEXT PREPROCESSOR (PHP)

Course Code: BCS 406

CreditUnits: 03

Program Outcome of this course (POs)

- 1. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 2. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- 3. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

COMMUNICATION SKILLS - II

Course Code: BCS 401

Credit Units: 01

At the successful completion of this course the student should be able to:

1. Identify steps to professional communication

2. Identify the key components of meeting, agendas and meeting minutes
3. Understand the key skills and behaviors required to facilitate a group discussion/presentation
4. Polish current affairs & rapport building

**BEHAVIOURAL SCIENCE – IV
(RELATIONSHIP MANAGEMENT)**

Course Code: BSS 404

CreditUnits: 01

At the successful completion of this course you (the student) would be able to:

1. Identify the basis of interpersonal relationship.
2. Describe the importance of interpersonal relationship and bridging individual differences.
3. Recognize the development and strategies for effective interpersonal relationship.
4. Explain and apply the theories of relationship concepts of impression management.

FRENCH - IV

Course Code: FLT 401

Credit Units: 02

At the successful completion of this course the student should be able to:

- To buy their own food in a French supermarket
- To ask and express their needs
- To tell about their food habits
- To ask for a price
- To order food at a restaurant
- To give an appointment
- To invite someone to go out with
- Understand an announcement
- Know about Paris Metropolitan map
- Talk about his/her time-table
- Express a professional wish
- Formulate a project
- Read a board

GERMAN - IV

Course Code: FLG 401

Credit Units: 02

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

1. understand and give instructions
2. understand and reply to a letter

3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

SPANISH - IV

Course Code: FLS 401

Credit Units: 02

At the successful completion of this course you should be able to:

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish
4. **Narrate** clearly ideas, themes in simple standard Spanish

SOFTWARE ENGINEERING

Course Code: BCS 502

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Apply their knowledge of mathematics, sciences, and computer science to the modelling, analysis, and measurement of software artefacts.
2. Analyze, specify and document software requirements for a software system.
3. Develop alternative design solutions to a given problem and recommend the best one within limitations of cost, time, knowledge, existing systems, and organizations.
4. Implement a given software design using s development practices.

COMPUTER ARCHITECTURE

Course Code: BCS 503

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate the Operate logical components and relate them with the various components of computer.
2. Create the general organization of the central processing unit.
3. Apply various computer memories and system communication mechanisms.
4. Develop various parallel processing architectures.

JAVA PROGRAMMING

Course Code: BCS 504

Credit Units: 03

At the successful completion of this course you should be able to:

1. Define object oriented terminology and JAVA programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application

5. Differentiate between C++ and java programming language
6. Create projects using Java programming.

ADVANCED NETWORKING

Course Code: BCS506 **Credit Units: 03**

At the successful completion of this course you (the student) should be able to:

1. Investigate various advanced TCP/IP protocols for computer network
2. Compare working of wired network and wireless networks.
3. Develop networking techniques to solve complex problems.
4. Create and maintain network for institute or small organizations.

COMMUNICATION SKILLS - III

Course Code: BCS 501 **Credit Units: 01**

At the successful completion of this course the student should be able to:

- 1.) Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
- 2.) Demonstrate the ability to analyse a problem and devise a solution in a group.
- 3.) Demonstrate proficiency in the use of written communication.

Recognize the mannerisms and methodology of Interview and Become more expressive in their body language.

BEHAVIOURAL SCIENCE - V (GROUP DYNAMICS AND TEAM BUILDING)

Course Code: BSS 504 **CreditUnits: 01**

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them.

FRENCH - V

Course Code: FLT 501 **Credit Units: 02**

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. Identify and express in basic French vocabulary and grammar norms.
2. Interpret different types of texts, cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Express clearly ideas, themes in simple standard French

GERMAN - V

Course Code: FLG 501 **Credit Units: 02**

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

- 1 1. Students will be able to ask and tell time.
- 2 2. Students will be able to frame sentences using Separable verb.
- 3 3. Student will be able to write and speak sentences using the modal verb.
- 4 4. Students will be able to frame sentences and speak using was/were/had.

SPANISH - V

Course Code: FLS 501

Credit Units: 02

After successful completion of the course, students will be able to perform orally and in writing certain social functions:

Students will be able to perform communicative tasks (oral and written) with proficiencies in,

- a) Introduction & Usage of stem changing irregular verbs in Future tense
- b) Introduction & Usage of stem changing irregular verbs in Gerundio tense
- c) Telephone Conversation
- d) Proposing a plan, rescheduling a plan and/or cancelling a plan
- e) Comparatives
- f) Introduction of Direct and Indirect Object Pronouns.
- g) Usage and Familiarity with Preterito Perfecto

CHINESE – V

Course Code: FLC 501

CreditUnits: 02

At the successful completion of this course, you will be able to:

- 1 **1. Read, write and speak approx. 100** New Chinese words and understand basic grammar points.
- 2 **2. Interpret** words, phrases and sentences of day today conversation related to using numbers and time words in their sentences, discussing weather, talking about directions, size quantity, right wrong & expressing mood.
- 3 **3. Write** Chinese characters, simple sentence and a paragraph on simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends discussing weather.”

SOFTWARE TESTING AND QUALITY ASSURANCE

Course Code:BCS 602

CreditUnits: 03

At the successful completion of this course, the student should be able to:

- 1) Distinguish between Software quality and Quality control.
- 2) Explain Software testing concept and its applications.
- 3) Represent knowledge using various testing techniques.
- 4) Use the appropriate testing techniques in achieving desired goals.

ANALYSIS AND DESIGN OF ALGORITHM

Course Code: BCS603

CreditUnits: 03

At the successful completion of this course you should be able to:

1. Analyse time and space complexity of the given program/algorithms.
2. Apply Divide and conquer approach to solve real world problem

3. Implement sorting on a set of given unsorted values & searching algorithms
4. To impart the knowledge Greedy Method
5. To familiarize with Dynamic programming algorithms and its applications.
6. Apply Graph data structure on real life problems
7. To learn the back tracking & Brach and bound algorithms approach.
8. Identify the class of given the algorithms using Computational Complexity

COMPUTER ORIENTED NUMERICAL METHODS

Course Code: BIT 605

Credit Units: 03

At the successful completion of this course, the student should be able to:

- CLO1.** The student will know the Fundamentals of System Programming and able to understand about Machine instructions.
- CLO2.** The student will know the usage of Assemblers. And able to understand about compilers.
- CLO3.** The student has been able to understand how to link a program through linkers and how to load a program to loaders
- CLO4.** The student will learn about MS-Dos compiler as well as the debugging process.
- CLO5.** The student is aware about various types of operating systems.

MICROPROCESSORS

Course Code: BCS 604

CreditUnits: 03

At the successful completion of this course you (the student) should be able to:

- 1) Obtain basic development skills for microprocessor / microcontroller applications.
- 2) They can Gain a detailed understanding of any system for a specific application.
- 3) Student are able to design a any hardware based on application.
- 4) To familiarize the Architecture of 8085 and 8086microprocessor.
- 5) To classify the types and characteristics of buses in microprocessor.
- 6) To analyze the features, addressing mode and programming of Intel 8085 and 8086microprocessor.

ADVANCED JAVA PROGRAMMING

Course Code: BCS 606

Credit Units: 03

At the successful completion of this course you should be able to:

1. Define object oriented terminology and JAVA programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply RMI for networking

4. Apply the concept of JSP to work with web
5. Differentiate between C++ and java programming language
6. Create projects using JSP and database connectivity.

SOFTWARE PROJECT MANAGEMENT

Course Code: Bcs 607

Credit Units: 04

At the successful completion of this course you (the student) should be able to:

1. Apply their knowledge of mathematics and computer science to the modelling, analysis, and measurement of software artefacts.
2. Analyse, specify and document software requirements for a software system.
3. Develop alternative design solutions to a given problem and recommend the best one within limitations of cost, time, knowledge, existing systems, and organizations.
4. Implement a given software design using development practices

CLOUD COMPUTING

Course Code: BCS 608

CreditUnits: 03

1. Students will be able to identify the role of Cloud Computing. To understand the working of current cloud technology trends.
2. Students will be able to analyse and understand cloud computing concepts and opportunities related with the cloud.
3. Students will be able to describe the role of network-based systems, distributed and cloud computing and virtualization.
4. Students will be able to understand description of virtual cluster-based systems and virtualization for data center automation.
5. Students will be able to create cloud-based systems with MS-Azure, Amazon-AWS, Google-GCP and configure the virtualization over there.

COMMUNICATION SKILLS - IV

Course Code: BCS 601

Credit Units: 01

At the successful completion of this course the student should be able to:

1. Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self orientation.
2. Showcase their leadership skills with effective team work.
3. Outline the basic etiquettes in expressing their credentials for professional and HR setup

BEHAVIOURAL SCIENCE – VI (STRESS AND COPING STRATEGIES)

Course Code: BSS 604

CreditUnits: 01

At the successful completion of this course you (the student) would be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyse symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

GERMAN - VI

Course Code: FLG 601

Credit Units: 02

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

- 1 understand and give instructions
- 2 understand and reply to a letter
- 3 speak about learning languages
- 4 find a particular information in a text

SPANISH – VI

Course Code: FLS 601

Credit Units: 02

At the successful completion of this course you should be able to:

- 1 **Identify** and **express** in Spanish vocabulary and grammar norms
- 2 **Interpret** different types of texts as well as cultural ideas and themes.
- 3 **Demonstrate** comprehension of nuance between script and sound in Spanish
- 4 **Narrate** clearly ideas, themes in simple standard Spanish

CHINESE – VI

Course Code: FLC 601

Credit Units: 02

At the successful completion of this course you should be able to:

At the successful completion of this course, you will be able to:

- 1 **Read, write and speak approx. 100** New Chinese words and understand basic grammar points.
 - 2 **Interpret** words, phrases and sentences of day today conversation related to colour, shopping, transportation, medical care, Sports and entertainment etc
 - 3 **Write** Chinese characters, simple sentence and a paragraph on simple topic like colour, shopping, transportation, medical care, Sports and entertainment etc.
- 4. Communicate** with Chinese speaking people using words, phrases and sentences related to colour, shopping, transportation, medical care, Sports and entertainment etc

INFORMATION STORAGE AND MANAGEMENT

Course Code: BCS 703

Credit Units: 03

At the end of this course the students will be able to

- 1 Describe the challenges found in today's complex information management environment
- 2 Describe storage technology solutions (such as DAS, NAS, SAN and Virtualization technologies)
- 3 Explain the key business drivers for storage: Information Availability and Business Continuity
- 4 Illustrate common storage management roles and responsibilities
- 5 Describe the processes and technologies for identifying, analyzing security risks in storage infrastructure

ARTIFICIAL INTELLIGENCE

Course Code: BCS 702

CreditUnits: 03

To develop semantic-based and context-aware systems to acquire, organize process, share and use the knowledge embedded in multimedia content. Research will aim to maximize automation of the complete knowledge lifecycle and achieve semantic interoperability between Web resources and services. The field of Robotics is a multi disciplinary as robots are amazingly complex system comprising mechanical, electrical, electronic H/W and S/W and issues germane to all these.

PROGRAMMING WITH ASP .NET

Course Code: BCS 705

CreditUnits: 03

At the successful completion of this course you should be able to:

1. Define object oriented terminology and C# programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application
5. Differentiate between C# and java programming language
6. Create projects using ASP.NET programming.

MOBILE COMPUTING

Course Code: BCS 706

Credit Units: 04

At the successful completion of this course you (the student) should be able to:

- 1 1. Investigate various advanced wireless protocols for mobile communication.
- 2 2. Compare working of wired network and wireless networks.
- 3 3. Develop networking techniques to solve complex problems.
- 4 4. Create and maintain network used in wireless condition.

DATA WAREHOUSING AND DATA MINING

Course Code: BCS 707

Credit Units: 03

1. Understand what data mining is and how data mining can be employed and applied to solve real problems.
2. Recognize whether a data mining solution is feasible alternative for a specific problem.
3. Apply basic statistical to evaluate the results of data mining models.
4. Develop a comprehensive understanding of how several data mining techniques can be applied to solve problems.

COMMUNICATION SKILLS - V

Course Code: BCS 701

Credit Units: 01

At the successful completion of this course students should be able to:

1. Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while choosing the appropriate channel of formal communication
3. Apply acquired knowledge with the appropriate selection of channel of formal communication.

**BEHAVIOURAL SCIENCE - VII
(INDIVIDUAL, SOCIETY AND NATION)**

Course Code: BSS 704

Credit Units: 01

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them.

FRENCH - VII

Course Code: FLT 701

CreditUnits: 02

At the successful completion of this course the students would be able to:
Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

CRYPTOGRAPHY AND NETWORK SECURITY

Course Code: BCS 802

CreditUnits: 03

- CLO1:** Students will be able to understand the concept of different cryptography techniques transposition and substitution methods.
- CLO2:** Students will be able to analyse the DES, IDEA, Feistel Cipher cryptographic algorithm.
- CLO3:** Students will be able to Understand and analyse public key Cryptosystem using RSA and learn various techniques used for the distribution of key in public key cryptosystem.
- CLO4:** Students will be able to apply and evaluate Message authentication and hash function using MD5 and SHA and learn the concept of digital signature.
- CLO5:** Students will be able to understand the concept of IP security and password message protocols.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING &
TECHNOLOGY(ASET)**

B. Tech. (Electronics & Communication Engineering)

Program Code: BEC

12051

Duration – 4 Years Full Time

PROGRAM STRUCTURE

Credit Summary

Semester	Core course (CC)	Domain Electives (DE)	Values Added Course (VAC)	Open Electives	NTCC	Total
I	24	-	4	-	2	30
II	19	-	8	3	2	32
III	20	3	4	3	---	30
IV	16	3	4	3	---	26
V	15	3	4	3	3	28
VI	19	3	4	3	--	29
VII	15	-	4	3	6	28
VIII	8	3	--	--	12	23
Total	136	15	32	18	25	226

Program Specific Outcomes (PSOs)

PSO.1-An ability to apply and understand the knowledge of mathematics, science and engineering.

PSO.2-Knowledge and understanding of mathematics through differential and integral calculus, and basic sciences and engineering topics (including computing science) necessary to analyze and design complex electrical and electronic devices, software, and systems containing embedded hardware and software components and their design.

PSO.3-Develop and deploy engineering/technological solutions using latest techniques & tools/CAD (VHDL, MATLAB, Or-cad, VLSI, Antenna Design) imbining concern for eco-system, and an attitude to serve society & humanity at large.

PSO.4-Graduates will successfully engage themselves in practice of multidisciplinary engineering or relevant fields; They will pursue wide-spectrum careers appropriately as technologists, innovators, consultants, managers & entrepreneurs and will advance in their profession.

PSO.5-An ability to design and conduct experiments as well as to analyze and interpret data.

PSO.6-An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, health and safety.

PSO.7-An ability to identify, formulate, and solve engineering problems.

PSO.8-Knowledge of probability and statistics, including applications appropriate to the electrical engineering (Electronics, Communication, Processing and Embedded technology)

PROGRAMME STRUCTURE

Semester I						
Code	Course	Category	L	T	P	Credits
Core Courses						
AM 101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics - I – Fields & Waves	CC	2	1		3
AC 103	Applied Chemistry	CC	2	1		3
BME 104	Element of Mechanical Engineering	CC	2	1		3
BCS 105	Introduction to Computers & Programming in C	CC	2	1		3
BEE 106	Basic Electrical Engineering	CC	2	1		3
Practical Courses						
AP 122	Applied Physics lab	CC	-	-	2	1
AC 123	Applied Chemistry lab	CC	-	-	2	1
BME 124	Element of Mechanical Engineering lab	CC	-	-	2	1
BCS 125	Programming in C lab	CC	-	-	2	1
BEE 126	Basic Electrical Engineering Lab	CC	-	-	2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I Understanding Self For Effectiveness- I		1	-	-	1
FLT 101	Foreign Language – I		2	-	-	2
FLG 101	French					
FLS 101	German					
FLC 101	Spanish					
	Chinese					
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
Total						30

Semester II						
Code	Course	Category	L	T	P	Credits
Core Courses						
AM 201	Applied Mathematics – II	CC	3	1	-	4
AP 202	Applied Physics - II – Modern Physics	CC	2	1		3
BCS 203	Object Oriented Programming using C++	CC	2	1		3
BME 204	Engineering Mechanics	CC	2	1		3
BME 205	Engineering Graphics	CC	1			1
BME 206	Domain Workshop	CC	1	-	-	1
Practical Courses						
AP 222	Applied Physics - II – Modern Physics lab	CC	-	-	2	1
BCS 223	Object Oriented Programming using C++ lab	CC	-	-	2	1
BME 224	Engineering Mechanics lab	CC	-	-	2	1
BME 225	Engineering Graphics lab	CC	-	-	2	1
Open Elective						
	OPEN ELECTIVE – I	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioral Science-II (Problem Solving & Creation thinking)	VA	1	-	-	1
FLF 201 FLG 201 FLS 201 FLC 201	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
EVS 001	Environmental Studies	VC	4	-	-	4
Non-Teaching Credit Course (NTCC)						
AND002	Anandan-II	NTCC	-	-	2	2
Total						32

Semester III						
Code	Course	Category	L	T	P	Credits
Core Courses						
AM 301	Applied Mathematics – III	CC	3	-	-	3
BEC 302	Analog Electronics-I	CC	3	1	-	4
BEC 303	Circuits & Systems	CC	3	1	-	4
BEC 304	Signal & Systems	CC	2	1	-	3
BEC 305	Java Programming	CC	3	-	-	3
Practical Courses						
BEC 322	Analog Electronics-I Lab	CC	-	-	2	1
BEC 323	Circuits & Systems Lab	CC	-	-	2	1
BEC 325	Java Programming Lab	CC	-	-	2	1
Domain Elective-I: Student must select one course from the following courses						
BEC 306	Electromagnetic Properties of Materials	DE	2	1		3
BEC 307	Measurements & Instrumentation	DE	2	1		3
Open Elective						
	OPEN ELECTIVE – II	OE	3		-	3
Value Added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science-III (Interpersonal Communication)	VA	1	-	-	1
FLT 301	Foreign Language – III	VA	2	-	-	2
FLG 301	French					
FLS 301	German					
FLC 301	Spanish					
	Chinese					
Total						30

Semester IV						
Code	Course	Category	L	T	P	Credits
Core Courses						
BEC 401	Digital Circuits & Systems-I	CC	3	-		3
BEC 402	Analog Electronics-II	CC	3	-		3
BEC 403	Communication Systems	CC	3	-	-	3
BEE 404	Control System	CC	3	-		3
Practical Courses						
BEC 421	Digital Circuits & Systems-I Lab	CC			2	1
BEC 422	Analog Electronics-II Lab	CC			2	1
BEC 423	Communication Systems Lab	CC			2	1
BEE 424	Control System Lab	CC			2	1
Domain Elective-II: Student has to select one course from the following courses						
BEC 405	Computer Oriented Numerical Methods	DE	2	1		3
BEC 406	Electromagnetic Field Theory	DE	2	1		3
Open Elective						
	OPEN ELECTIVE – III	OE	3			3
Value Added Courses						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 404	Behavioral Science-IV (Relationship Management)	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language – IV French German Spanish Chinese	VA	2	-	-	2
Total						26

Semester V						
Code	Course	Category	L	T	P	Credits
Core Courses						
BEC 501	Microprocessor and Microcontroller Systems	CC	3	-		3
BEC 502	Digital Circuits & Systems-II	CC	3	-	-	3
BEC 503	Digital Communications	CC	3	-		3
BCS 510	Web Development	CC	2	-	-	2
Practical Courses						
BEC 521	Microprocessor and Micro Controller Lab	CC			2	1
BEE 528	MATLAB theory and practices	CC	-	-	2	1
BEC 522	Digital Circuits & Systems-II Lab	CC			2	1
BCS 530	Web Development Lab	CC	-	-	2	1
BEC 550	Practical Training (Evaluation)	NTCC	-	-	-	3
Domain Elective-III: Student has to select one course from the following courses						
BEC 505	Telecommunication Networks	DE	3			3
BEC 506	Operating Systems	DE	3			3
BEE 505	Computer System Architecture	DE	3			3
Open Elective						
	OPEN ELECTIVE – IV	OE	3			3
Value Added Courses						
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 504	Behavioral Science-V (Understanding self for effectiveness)	VA	1	-	-	1
FLT 501 FLG 501 FLS 501 FLC 501	Foreign Language – V French German Spanish Chinese	VA	2	-	-	2
Total						28

Semester VI						
Code	Course	Category	L	T	P	Credits
Core Courses						
BEC 601	VLSI Design	CC	3	-		3
BEC 602	Digital Signal Processing	CC	3	-		3
BEC 603	Microwave Engineering	CC	3	-		3
BEE 601	Power Electronics	CC	3	-	-	3
BCS 610	Programming with Python	CC	2	-	-	2
Practical Courses						
BEC 621	VLSI Design lab	CC			2	1
BEC 622	Digital Signal Processing lab	CC			2	1
BEC 623	Microwave Engineering lab	CC			2	1
BEE 621	Power Electronics Lab	CC		-	2	1
BCS 630	Programming with Python Lab	CC	-	-	2	1
Domain Elective-IV: Student has to select one course from the following courses						
BEC 605	Measurement & Measuring Instruments	DE	3			3
BEC 606	Data Structures and IT	DE	3			3
BEC 607	Information Theory & Coding	DE	3			3
Open Elective						
	OPEN ELECTIVE – V	OE	3			3
Value Added Courses						
BCS 601	Communication Skills – IV	VA	1	-	-	1
BSS 604	Understanding self for Effectiveness – VI	VA	1	-	-	1
FLT 601 FLG 601 FLS 601 FLC 601	Foreign Language – VI French German Spanish Chinese	VA	2	-	-	2
Total						29

Semester VII						
Code	Course	Category	L	T	P	Credits
Core Courses						
BEC 701	Radar & Satellite Communications	CC	3	-		3
BEC 702	Digital Image Processing	CC	3	-		3
BEC 703	Analog CMOS IC Design	CC	3	-		3
BCS 710	Advanced Programming with Python	CC	2	-	-	2
Practical Courses						
BEC 721	Radar & Satellite Communications Lab	CC			2	1
BEC 722	Digital Image Processing lab	CC			2	1
BEC 723	Analog CMOS IC Design lab	CC			2	1
BCS 730	Advanced Programming with Python Lab	CC	-	-	2	1
BEC 750	Industrial Training (Evaluation)	NTCC				3
BEC 760	Seminar	NTCC				3
Open Elective						
	OPEN ELECTIVE – VI	OE	3			3
Value Added Courses						
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Understanding self for effectiveness – VII	VA	1	-	-	1
FLT 701 FLG 701 FLS 701 FLC 701	Foreign Language – VII French German Spanish Chinese	VA	2	-	-	2
TOTAL						28

Semester VIII						
Code	Course	Category	L	T	P	Credits
Core Courses						
BEC 801	Antenna & Wave Propagation	CC	3	-	-	3
BEC 802	Embedded System Design and Device Driver Development	CC	3	-		3
Practical Courses						
BEC 822	Embedded System Design and Device Driver Development lab	CC		-	2	1
BEC 821	Antenna & Wave Propagation Lab	CC		-	2	1
BEC 861	Project	NTCC				12
Domain Elective-V: Student must select one course from the following courses						
BEC 803	Instrumentation	DE	3			3
BEC 804	Nano science & Nanotechnology	DE	3			3
BEC 805	Robotics & Automation	DE	3			3
Total						23
Note: CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work						
Total Credits						226

COURSE OUTCOMES

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY B. Tech. ECE

AM 301-APPLIED MATHEMATICS – III

Upon successful completion of the course, the students will be able to:

1. Investigate the basic concept about partial differential equations.
2. Create an interest in finding the solution by Fourier Series and Fourier Transforms.
3. Apply basic concepts of Laplace Transformation.
4. Develop the physical problems using optimization techniques.

BEC 302-ANALOG ELECTRONICS – I

Upon successful completion of the course, the students will be able to:

1. Understand the current voltage characteristics of semiconductor devices..
2. Analyze dc circuits and relate ac models of semiconductor devices with their physical Operation.
3. Design and analyze of electronic circuits.
4. Evaluate frequency response to understand behaviour of Electronics circuits.
5. Students will develop some minor projects based on the concepts of Analog Electronics.

BEC 303-CIRCUITS AND SYSTEMS

Upon successful completion of the course, the students will be able to:

1. Do the time-domain and S- domain analysis of circuits
2. Obtain transfer functions of circuits and analysis of stability using poles of the transfer function.
3. Analyze the frequency response of circuits and to obtain the correlation between time domain and frequency domain response specifications
4. Obtain steady state solutions for nonsinusoidal inputs using fourier series and to analyze the effect of harmonics in circuits
5. Understand the features of two port networks and to obtain their equivalent circuits

BEC 304-SIGNALS AND SYSTEMS

Upon successful completion of the course, the students will be able to:

1. Learn & understand about the of signal & systems
2. Understand the different types of transformation on signal and their need
3. Learn to fundamental functioning of time to frequency domain analysis and implementation
4. Understand the various industrial applications in of signal and systems

BEC 305-JAVA PROGRAMMING

Upon successful completion of the course, the students will be able to:

1. Define object oriented terminology and JAVA programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application
5. Differentiate between C++ and java programming language
6. Create projects using Java programming

BEC 307-MEASUREMENTS & INSTRUMENTATION

Upon successful completion of the course, the students will be able to:

1. Know the importance of measurement systems in industries.
2. Select and calibrate the appropriate sensors, calculate sensibility, errors, and repeatability

3. Design and use of amplifiers with measurement systems in order to facilitate the reading of output signal Noise filtering to decrease reading errors.
4. Convert analog signal into digital signal in order to be saved into a computer

BEC 401-DIGITAL CIRCUITS AND SYSTEMS – I

Upon successful completion of the course, the students will be able to:

1. Understand the Fundamentals of Computers and Digital Electronics.
2. Analyse Various Logic Gates and implementation of Boolean expressions.
3. Design and analyse of Digital Electronic circuits.
4. Evaluate various parameters to understand behaviour of Digital Electronics circuits.
5. Students will develop some minor projects based on the concepts of Digital Electronics.

BEC 402 -ANALOG ELECTRONICS – II

Upon successful completion of the course, the students will be able to:

1. Familiar with Operational Amplifier in terms of characteristics, operation, applications and limitations.
2. Know the foundation of advance courses on VLSI design and analog CMOS IC Design
3. Determine the importance, necessity & use of operational Amplifier in electronic devices..

BEC 403-COMMUNICATION SYSTEMS

Upon successful completion of the course, the students will be able to:

1. Accurately describe a communication system, define its parts and analyze its operation
2. Perform a feasibility study for the design and implementation of a communications system.
3. Analyse, design, develop, implement, support and supervise the operations of all components of a communications system.
4. Design, organize, support and supervise the operation of the entire communications system.
5. Evaluate and make performance measurements of a communications system.
6. Investigate, study, debug and solve problems during the operation of a communications system.

BEE 404 -CONTROL SYSTEM

Upon successful completion of the course, the students will be able to:

1. Study the control system component behavior by transfer function methods.
2. Ability to design a suitable compensator Lead, Lag and Lead – lag compensator using frequency domain method or time domain method.
3. Understand mathematical models of linear discrete-time control systems using transfer functions and state-space models.
4. Analyze and determine whether performance of linear discrete-time control systems meet specified design criteria.

BEC 406 -ELECTROMAGNETIC FIELD THEORY

Upon successful completion of the course, the students will be able to:

1. Investigate the various types of coordinate systems, along with electromagnetic field concepts.
2. Create awareness of all existing governing equations and theorems for mathematical description (such as Gauss', Faraday', Ampere's laws and Poisson, Laplacian, Maxwell equations).
3. Apply the distributed circuit concepts needed at EM, specifically to match impedances and design HF components.
4. Develop and recognise fundamental properties of waveguide modes.

BEC 501-MICROPROCESSOR AND MICROCONTROLLER SYSTEMS

Upon successful completion of the course, the students will be able to:

1. Obtain basic development skills for microprocessor / microcontroller applications

2. They can Gain a detailed understanding of any system for a specific application
3. Student are able to design a any hardware based on application
4. To familiarize the Architecture of 8085 and 8086microprocessor.
5. To classify the types and characteristics of buses in microprocessor.
6. To analyze the features, addressing mode and programming of Intel 8085 and 8086 microprocessor

BEC 502 -DIGITAL CIRCUITS AND SYSTEMS – II

Upon successful completion of the course, the students will be able to:

1. Identify and explain fundamental concepts of advance digital logic design including combinational and sequential circuits.
2. Analyse the digital circuit and can describe that circuit by using hardware description language.
3. Analyse small-scale combinational and sequential digital circuits and can implement on FPGA after writing the VHDL code of particular circuit.
4. Implement finite state machine in VHDL language and other arithmetic operation can be done on FPGA using XILINX tool.

BEC 503-DIGITAL COMMUNICATIONS

Upon successful completion of the course, the students will be able to:

1. Develop a comparatively approach for analysis of various digital modulation schemes.
2. Able to calculate practical parameters for better signal reception of baseband signal.
3. Able to analysis of various techniques to transmit analog samples along, signal reception and signalling schemes.
4. Capable of analysis different digital modulations schemes and their comparison
5. To acquire the knowledge about the multiplexing techniques used worldwide

BEC 505-TELECOMMUNICATION NETWORKS

Upon successful completion of the course, the students will be able to:

1. Describe the basic principles of action with modern digital telecommunication devices, systems and networks.
2. Conduct experiments and measurements in the laboratory and on actual components, devices, equipment and systems in telecommunication. Be able to design some simple measurement systems using different sensors.
3. Interpret the acquired multimedia systems measurements data.
4. Describe the development and application of digital telecommunications systems.
5. examine the communications equipment for the technical functionality.

BEC 506-OPERATING SYSTEMS

Upon successful completion of the course, the students will be able to:

1. Students will be able to identify the role of Operating System. To understand the design of control unit.
2. Students will be able to analyse and understanding CPU Scheduling, Synchronization, Deadlock Handling and Comparing CPU Scheduling Algorithms. Solve Deadlock Detection Problems.
3. Students will be able to describe the role of paging, segmentation and virtual memory in operating systems.
4. Students will be able to understand description of protection and security and also the Comparison of UNIX and Windows based OS.
5. Students will be able to understand the concept of Defining I/O systems, Device Management Policies and Secondary Storage Structure and Evaluation of various Disk Scheduling Algorithms.

BEE 505-COMPUTER SYSTEM ARCHITECTURE

Upon successful completion of the course, the students will be able to:

1. Investigate the Operate logical components and relate them with the various components of computer.
2. Create the general organization of the central processing unit.
3. Apply various computer memories and system communication mechanisms
4. Develop various parallel processing architectures

BEC 601 -VLSI DESIGN

Upon successful completion of the course, the students will be able to:

1. Analyze the application of electronic components.
2. Understand the concept of MOSFET.
3. Analyse the applications of MOSFET
4. Understand the industrial application of CMOS.
5. Analyze the operation of CMOS and their applications.

BEC 602 -DIGITAL SIGNAL PROCESSING

Upon successful completion of the course, the students will be able to:

1. Learn the analysis of signal & systems
2. Understand the different types of transformation and their need.
3. Learn to fundamental functioning of different types of digital filter.
4. Understand the various industrial applications in of signal and systems.
5. Learn MATLAB tools for processing a signal

BEC 603-MICROWAVE ENGINEERING

Upon successful completion of the course, the students will be able to:

1. Explain the microwave frequency region for various communication and applications of microwave.
2. Differentiate various microwave media and modes by the wave can propagate in space.
3. Categories various component and devices of microwave and their applications.
4. Compare conventional microwave tubes with solid state devices.

BEE 601-POWER ELECTRONICS

Upon successful completion of the course, the students will be able to:

1. Accurately analyse and select the power semiconductor switching devices for a given power converter.
2. Understand the constructional details and principle of operation of triggering devices to control the power devices.
3. Design an appropriate triggering and protection scheme for power semiconductor devices
4. Understand the working of various types of converters, choppers and inverter circuits.
5. Analyse and evaluate the performance of controlled converters, choppers and inverter circuits.
6. Recognize the applications of the power electronics based system to full fill the industry requirement.

BCS 610-PROGRAMMING WITH PYTHON

Upon successful completion of the course, the students will be able to:

1. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

2. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
3. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

BEC 605-MEASUREMENT AND MEASURING INSTRUMENTS

Upon successful completion of the course, the students will be able to:

1. Describe the use of various electrical/electronic instruments, their block diagram, applications, and principles of operation, standards errors and units of measurements.
2. Develop basic skills in the design of electronic equipments.
3. Analyse: different electrical/electronic parameters using state of equipments of measuring instruments which is require to all types of industries.
4. Solve :Identify electronics/ electrical instruments, understanding associated with the instruments.
5. Explain: use of transducers in different types of field applications

BEC 606-DATA STRUCTURE AND IT

Upon successful completion of the course, the students will be able to:

1. Understanding of fundamental Data Structures including linked-lists, trees, binary search trees, AVL trees, stacks, queues, priority queues, and hash-tables and skiplists.
2. Understanding of fundamental abstract data types which can include: Maps, Sets and Vectors.
3. Ability to program data structures and use them in implementations of abstract data types.
4. Ability to devise novel solutions to small scale programming challenges involving data structures and and recursion.
5. Understanding of basic algorithmic complexity

BEC 607-INFORMATION THEORY AND CODING

Upon successful completion of the course, the students will be able to:

1. Investigate the fundamentals concepts of Information Theory & Coding
2. Create the the different codes like: Shannon's, Fano's, Huffman Coding techniques.
3. Apply different codes like linear, block codes, BSC, BEC in communication systems.
4. Develop Binary Fields, Finite Fields, and Galois field used in communication systems

BEC 701 -RADAR AND SATELLITE COMMUNICATIONS

Upon successful completion of the course, the students will be able to:

1. Understand the basic concepts in modern surveillance radar and satellite telecommunication systems including the radar ambiguity function, modulation, signal detection, link budgets, spread spectrum, and system design.
2. Understand design and system performance tradeoffs for such systems.
3. Communicate design and analysis concepts.
4. Do Research on practical systems.
5. Write original reports about practical radar and satellite systems

BEC 702-DIGITAL IMAGE PROCESSING

Upon successful completion of the course, the students will be able to:

1. Investigate the fundamental concepts of a digital image processing system.
2. Create the spatial domain and frequency domain image enhancement techniques.
3. Apply which tools of image processing should be applied in order to solve the real problems.
4. Develop Matlab algorithms for digital image processing operations such as histogram equalization, image enhancement, image restoration, image analysis, image compression, morphology, representation and description, filtering and denoising.

BEC 703-ANALOG CMOS IC DESIGN

Upon successful completion of the course, the students will be able to:

1. Identify the fundamentals of MOSFET and their applications in industry.
2. Analyze and design different operational amplifier and their uses.
3. Analyze the effects of various noises on MOSFET circuits.
4. Analyze and design different kind of amplifiers and their frequency response.

BCS 710-ADVANCED PROGRAMMING WITH PYTHON

Upon successful completion of the course, the students will be able to:

1. Interpret the basic principles of Python programming language.
2. Articulate the Object-Oriented Programming concepts such as encapsulation, inheritance and polymorphism as used in Python.
3. Identify the commonly used operations involving file systems and regular expressions.
4. Implement Machine Learning algorithms.

BEC 801-ANTENNA AND WAVE PROPOGATION

Upon successful completion of the course, the students will be able to:

1. Explain how an antenna radiates and capture radio wave energy from the concepts of radiation by dynamic currents and charges, and retarded potentials.
2. Distinguish the properties and parameters of antenna such as radiation pattern, radiation impedance, directivity, antenna gain, effective.
3. Design an antenna system, including the shape of the antenna, feed property, the requirement on the arrangement of the radiating elements in an array, given the radiation parameters such as radiation pattern, gain, operating frequency, and transmit/receive power.
4. Identify the mechanism of the atmospheric effects on radio wave propagation.
5. Measure the metrics for comparison of different antennas

BEC 802-EMBEDDED SYSTEM DESIGN AND DEVICE DRIVER DEVELOPMENT

Upon successful completion of the course, the students will be able to:

1. Students are able to identify basic concepts of designing a system using interfacing device.
2. They can Gain a detailed understanding of any system for a specific application.
3. Student are able to design a any hardware based on application.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY
(ASET)**

Bachelor of Technology

(Computer Science & Engineering)

Programme Code: BCS

12052

Duration – 4 Years Full Time

(Programme Structure)

Credits Summary

Semester	Core Courses (CC)	Domain Electives (DE)	Value Added Courses (VA)	Non-Teaching Credit Courses (NTCC)	Open Electives (OE)	Anandam	Total
1	22	-	04	00	-	02	28
2	24	-	04	01	03	02	34
3	15	04	04	00	03	02	28
4	14	04	04	00	03	02	27
5	12	04	04	05	03	02	30
6	14	04	04	00	03	02	27
7	07	04	04	04	03	02	24
8	11	-	-	15	-		26
Total	119	20	28	25	18	14	224

Total Credit=119+20+28+25+18+14=224

CC= Core Course, DE=Domain Elective, OE= Open Elective, VA=Value Added Course, NTCC=Non-Teaching Credit Courses

Program Specific Outcomes (PSOs)

1. Students will be able to demonstrate role of Computer Science in the following core knowledge areas
 - Algorithms, Data Structures and Databases
 - Programming Languages and Compilers
 - Software Engineering and Development
 - Computer Hardware and Architecture
 - Data Communication and Computer Networks
2. Students will be able to analyze role of computer science and information technology, with mainstay in mathematics, basic sciences and engineering fundamentals.
3. Students will apply problem solving strategies to a range of modern computing paradigms related to computer programming, data intensive technologies, distributed and cloud computing, computational techniques.
4. Students will gain experiential learning on developing techno-commercially feasible and socially acceptable computing solutions to real world engineering problems thorough internship and projects, in industry.
5. Students will recognize the role of technological advances impacting society and the social, legal, ethical, cultural and communicative implications of computer technology and their usage.

PROGRAMME STRUCTURE

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(CSE)

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics - I – Fields & Waves	CC	2	1	-	3
BME 103	Engineering Mechanics	CC	2	1	-	3
BCS 104	Introduction to Computers & Programming in C	CC	2	1	-	3
BEE 105	Basic Electrical Engineering	CC	2	1	-	3
BME 106	Engineering Graphics	CC	1	-	-	1
Practical Courses						
AP 122	Applied Physics - I lab	CC	-	-	2	1
BME 123	Engineering Mechanics Lab	CC	-	-	2	1
BCS 124	Programming in C Lab	CC	-	-	2	1
BEE 125	Basic Electrical Engineering Lab	CC	-	-	2	1
BME 126	Engineering Graphics Lab	CC	-	-	2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I(Understanding Self for Effectiveness)	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language – I French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
Total						28

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(CSE)

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM 201	Applied Mathematics – II	CC	3	1	-	4
AP 202	Applied Physics - II – Modern Physics	CC	2	1	-	3
AC 203	Applied Chemistry	CC	2	1	-	3
BCS 204	Data Structures Using C	CC	2	1	-	3
BME 205	Elements of Mechanical Engineering	CC	2	1	-	3
BCS 206	Domain Workshop/Seminar	NTCC	-	-	-	1
EVS 001	Environmental Studies	CC	4	-	-	4
Practical Courses						
AP 222	Applied Physics – II Lab	CC	-	-	2	1
AC 223	Applied Chemistry Lab	CC	-	-	2	1
BCS 224	Data Structures Using C Lab	CC	-	-	2	1
BME 225	Elements of Mechanical Engineering Lab	CC	-	-	2	1
Open Elective						
	OPEN ELECTIVE- 1	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioural Science – II (Problem solving and Creative Thinking)	VA	1	-	-	1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND002	Anandam-II	NTCC	-	-	-	2
Total						34

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(CSE)

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM 301	Applied Mathematics – III	CC	2	1	-	3
BCS 302	Database Management Systems	CC	2	1	-	3
BCS 303	Operating Systems with Unix	CC	2	1	-	3
BCS 304	Object Oriented Programming using C++	CC	2	1	-	3
Practical Courses						
BCS 322	Database Management Systems lab	CC	-	-	2	1
BCS 323	Operating Systems with Unix lab	CC	-	-	2	1
BCS 324	Object Oriented Programming using C++ lab	CC	-	-	2	1
Domain Elective-I : Choose any ONE from the following courses along with corresponding labs						
BCS 305	Digital Electronics	DE	2	1	-	3
BCS 306	Website Design	DE				
BCS 325	Digital Electronics lab	DE	-	-	2	1
BCS 326	Website Design Lab	DE				
Open Elective Course						
	OPEN ELECTIVE- 2	OE	3	-	-	3
Value Added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science – III (Interpersonal Communication)	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language – III French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND003	Anandam-III	NTCC	-	-	-	2
Total						28

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(CSE)

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BCS 402	Theory of Automata & Computation	CC	3		-	3
BCS 403	Discrete Mathematics	CC	2	1	-	3
BCS 404	Computer Graphics	CC	2	1	-	3
BCS 405	Data Communication & Computer Networks	CC	2	1	-	3
Practical Courses						
BCS 424	Computer Graphics Lab	CC	-	-	2	1
BCS 425	Data Communication & Computer Networks Lab	CC	-	-	2	1
Domain Elective-II : Choose any one from the following courses						
BCS 406	Hypertext Preprocessor (PHP)	DE	2	1	-	3
BCS 407	E-Commerce and ERP	DE	4	-	-	4
BCS 426	PHP Lab	DE	-	-	2	1
Open Elective Courses						
	OPEN ELECTIVE- 3	OE	3	-	-	3
Value Added Courses						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 404	Behavioural Science – IV (Relationship Management)	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language – IV French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND004	Anandam-IV	NTCC	-	-	-	2
Total						27

PRACTICAL TRAINING – I: 6 – 8 WEEKS

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(CSE)

FIFTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BCS 502	Software Engineering	CC	2	1	-	3
BCS 503	Computer Architecture	CC	2	1	-	3
BCS 504	Java Programming	CC	3	-	-	3
BCS 550	Internship - I (Evaluation)	NTCC	-	-	-	5
Practical Courses						
BCS 522	Software Engineering Lab	CC	-	-	2	1
BCS 523	Computer Architecture Lab	CC	-	-	2	1
BCS 524	Java Programming Lab	CC	-	-	2	1
Domain Elective-III : Choose any ONE from the following courses along with their corresponding labs						
BCS 505	Python Programming	DE	2	1	-	3
BCS 506	Advance Networking	DE	2	1	-	3
BCS 525	Python Programming Lab	DE	-	-	2	1
BCS 526	Advance Networking Lab	DE	-	-	2	1
Open Elective Courses						
	OPEN ELECTIVE- 4	OE	3	-	-	3
Value Added Courses						
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 504	Behavioural Science –V (Group Dynamics and Team Building)	VA	1	-	-	1
FLT 501 FLG 501 FLS 501 FLC 501	Foreign Language – V French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND005	Anandam-V	NTCC	-	-	-	2
Total						30

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(CSE)

SIXTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BCS 602	Software Testing & Quality Assurance	CC	3	-	-	3
BCS 603	Analysis and Design of Algorithm	CC	2	1	-	3
BCS 604	Microprocessor	CC	2	1	-	3
BCS 605	System Programming	CC	2	1	-	3
Practical Courses						
BCS 622	Software Testing and Quality Assurance Lab	CC	-	-	2	1
BCS 624	Microprocessor Lab	CC	-	-	2	1
Domain Elective-IV : Choose any ONE from the following courses along with their corresponding labs						
BCS 606	Advanced Java Programming	DE	2	1	-	3
BCS 607	Software Project Management	DE	2	1	-	3
BCS 608	Cloud Computing	DE	2	1	-	3
BCS 626	Advanced Java Programming Lab	DE	-	-	2	1
BCS 627	Software Project Management Lab	DE	-	-	-	-
BCS 628	Cloud Computing Lab	DE	-	-	2	1
Open Elective Course						
	OPEN ELECTIVE- 5	OE	3	-	-	3
Value Added Courses						
BCS 601	Communication Skills – IV	VA	1	-	-	1
BSS 604	Behavioral Science – VI (Stress and Coping Strategies)	VA	1	-	-	1
FLT 601 FLG 601 FLS 601 FLC 601	Foreign Language – VI French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND006	Anandam-VI	NTCC	-	-	-	2
Total						27

PRACTICAL TRAINING – II: 6 – 8 WEEKS

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(CSE)

SEVENTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BCS 702	Artificial Intelligence	CC	2	1	-	3
BCS 703	Information Storage & Management (EMC ²)	CC	3	-	-	3
BCS 750	Internship – II(Evaluation)	NTCC	-	-	-	4
Practical Courses						
BCS 722	Artificial Intelligence Lab	CC	-	-	2	1
Domain Elective-V : Choose any ONE from the following courses along with their corresponding labs						
BCS 704	Compiler Construction	DE	2	1	-	3
BCS 705	Programming with ASP.Net	DE	2	1	-	3
BCS 706	Mobile Computing	DE	3	1	-	4
BCS 707	Data Warehousing & Data Mining	DE	2	1	-	3
BCS 724	Compiler Construction Lab	DE	-	-	2	1
BCS 725	Programming with ASP.Net Lab	DE	-	-	2	1
BCS 727	Data Warehousing & Data Mining Lab	DE	-	-	2	1
Open Elective Course						
	OPEN ELECTIVE- 6	OE	3	-	-	3
Value Added Courses						
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Behavioural Science – VII (Individual, Society and Nation)	VA	1	-	-	1
FLT 701 FLG 701 FLS 701 FLC 701	Foreign Language – VII French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND007	Anandam-VII	NTCC	-	-	-	2
Total						24

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Program Name: B.Tech.(CSE)

EIGHTH SEMESTER

SEMESTER VIII

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BCS 801	Soft Computing	CC	2	1	-	3
BCS 802	Cryptography & Network Security	CC	2	1	-	3
BCS 803	Digital Image Processing	CC	2	1	-	3
BCS 860	Project	NTCC	-	-	-	15
Practical Courses						
BCS 821	Soft Computing in MATLAB Lab	CC	-	-	2	1
BCS 823	Digital Image Processing Lab	CC	-	-	2	1
Total						26

Note:-

CC - Core Course,
VA - Value Added Course,
OE - Open Elective,
DE - Domain Elective,
FW - Field Work

Course Outcomes

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY

B. Tech. Computer Science & Engineering (CSE)

BCS 104 - Introduction To Computers And Programming In C

At the successful completion of this course you (the student) should be able to:

1. Attempting algorithmic solutions to problems
2. Designing and coding moderate sized programs running to the order of a few hundred lines of code, and
3. Reading, understanding and modifying code written by others.

BCS 204 - Data Structures Using C

At the successful completion of this course you (the student) should be able to:

1. Explain the systematic methods of efficiently organizing and accessing data in data structures and algorithms.
2. Identify the properties and structural patterns in data structures.
3. Apply abstract data types to the design of data structures.
4. Analyse algorithms using a mathematical notation and experimental studies.
5. Perform comparative analysis of the typical data structures and algorithms.
6. Design and Analyse recursive algorithms in data structures.
7. Write code in pseudocode and high-level programming languages for the implementation of various data structures and algorithms.

BCS 302 - Database Management Systems

At the successful completion of this course you (the student) should be able to:

1. Investigate about what is database, different types of databases, and why they are valuable assets for decision making.
2. Analyse and critically evaluate the importance of various keys and importance of ER Modelling with relationship in ER diagram and Normalization.

3. Analyse transaction and Implement to create the SQL query in a database and to extract useful information.
4. Develop a set of queries to handle a specified set of typical user inquiries for information extraction from the database through SQL.

BCS 303 - Operating Systems With Unix

At the successful completion of this course you (the student) should be able to:

1. Students will be able to identify the role of Operating System. To understand the design of control unit.
2. Students will be able to analyse and understanding CPU Scheduling, Synchronization, Deadlock Handling and Comparing CPU Scheduling Algorithms. Solve Deadlock Detection Problems.
3. Students will be able to describe the role of paging, segmentation and virtual memory in operating systems.
4. Students will be able to understand description of protection and security and also the Comparison of UNIX and Windows based OS.
5. Students will be able to understand the concept of Defining I/O systems, Device Management Policies and Secondary Storage Structure and Evaluation of various Disk Scheduling Algorithms.

BCS 304 - Object Oriented Programming Using C++

At the successful completion of this course you (the student) should be able to:

1. Understand object-oriented programming and advanced C++ concepts.
 - a. Be able to explain the difference between object-oriented programming and procedural programming.
 - b. Be able to program using more advanced C++ features such as composition of objects, operator overloads, dynamic memory allocation, inheritance and polymorphism, file I/O, exception handling, etc.
 - c. Be able to build C++ classes using appropriate encapsulation and design principles.
2. Improve your problem-solving skills
 - a. Be able to apply object oriented or non-object-oriented techniques to solve bigger computing problems.

Goal: to make you a good programmer. Apply methods to analyse running time of essential data structures and estimate efficiency of the algorithms and implementations.

BCS 402 - Theory of Automata and Computation

At the successful completion of this course you (the student) should be able to:

1. Students will be able to understand the concept of computation and designing deterministic and nondeterministic finite automata.
2. Students will be able to analyse the basic properties of formal languages and formal grammars using computation model.
3. Students will be able to analyse and perform the basic properties of Push down automata & Context Free Grammars.
4. Students will be able to apply and evaluate basic properties of Turing machines and computing with Turing machines & Linear Bounded Automaton.
5. Students will be able to understand the concept of Recursive and recursively enumerable language and recursive functions.

BCS 404 - Computer Graphics

At the successful completion of this course you (the student) should be able to:

1. Investigate the structure of modern computer graphics systems
2. Create key algorithms for rasterize, modelling and rendering graphical data
3. Apply experience in constructing interactive computer graphics programs
4. Develop design and problem-solving skills with application to computer graphics

BCS 405 - Data Communication and Computer Networks

At the successful completion of this course you (the student) should be able to:

1. Evaluate storage architectures and key data center elements in classic, virtualized and cloud environments
2. Explain physical and logical components of a storage infrastructure including storage subsystems, RAID and intelligent storage systems
3. Describe storage networking technologies such as FCSAN, IP-SAN, FCoE, NAS and object-based, and unified storage
4. Understand and articulate business continuity solutions – backup and replications, along with archive for managing fixed content
5. Explain key characteristics, services, deployment models, and infrastructure components for a cloud computing
6. Describe information security requirements and solutions, and identify parameters for managing and monitoring storage infrastructure in classic, virtualized and cloud environments

BCS 406 - Website Design

At the successful completion of this course you (the student) should be able to:

1. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
2. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
3. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

BCS 406 - Hypertext Preprocessor (PHP)

At the successful completion of this course you (the student) should be able to:

1. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
2. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
3. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

BCS 407 - E-Commerce and ERP

At the successful completion of this course you (the student) should be able to:

BCS 502 - Software Engineering

At the successful completion of this course you (the student) should be able to:

1. Apply their knowledge of mathematics, sciences, and computer science to the modelling, analysis, and measurement of software artefacts.
2. Analyze, specify and document software requirements for a software system.
3. Develop alternative design solutions to a given problem and recommend the best one within limitations of cost, time, knowledge, existing systems, and organizations.
4. Implement a given software design using s development practices.

BCS 503 - Computer Architecture

At the successful completion of this course you (the student) should be able to:

1. Investigate the Operate logical components and relate them with the various components of computer.
2. Create the general organization of the central processing unit.
3. Apply various computer memories and system communication mechanisms.
4. Develop various parallel processing architectures.

BCS 504 - Java Programming

At the successful completion of this course you (the student) should be able to:

1. Define object oriented terminology and JAVA programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application
5. Differentiate between C++ and java programming language
6. Create projects using Java programming.

BCS 506 - Advanced Networking

At the successful completion of this course you (the student) should be able to:

1. Investigate various advanced TCP/IP protocols for computer network
2. Compare working of wired network and wireless networks.
3. Develop networking techniques to solve complex problems.
4. Create and maintain network for institute or small organizations.

BCS 602 - Software Testing and Quality Assurance

At the successful completion of this course you (the student) should be able to:

1. Distinguish between Software quality and Quality control.
2. Explain Software testing concept and its applications.
3. Represent knowledge using various testing techniques.
4. Use the appropriate testing techniques in achieving desired goals.

BCS 603 - Analysis and Design of Algorithm

At the successful completion of this course you (the student) should be able to:

1. Analyse time and space complexity of the given program/algorithms.
2. Apply Divide and conquer approach to solve real world problem
3. Implement sorting on a set of given unsorted values & searching algorithms
4. To impart the knowledge Greedy Method
5. To familiarize with Dynamic programming algorithms and its applications.
6. Apply Graph data structure on real life problems
7. To learn the back tracking & Brach and bound algorithms approach.
8. Identify the class of given the algorithms using Computational Complexity

BCS 605 - System Programming

At the successful completion of this course you (the student) should be able to:

1. The student will know the Fundamentals of System Programming and able to understand about Machine instructions.
2. The student will know the usage of Assemblers. And able to understand about compilers.
3. The student has been able to understand how to link a program through linkers and how to load a program to loaders
4. The student will learn about MS-Dos compiler as well as the debugging process.
5. The student is aware about various types of operating systems.

BCS 606 - Advanced Java Programming

At the successful completion of this course you (the student) should be able to:

1. Define object oriented terminology and JAVA programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply RMI for networking

4. Apply the concept of JSP to work with web
5. Differentiate between C++ and java programming language
6. Create projects using JSP and database connectivity.

BCS 607 - Software Project Management

At the successful completion of this course you (the student) should be able to:

1. Apply their knowledge of mathematics and computer science to the modelling, analysis, and measurement of software artefacts.
2. Analyse, specify and document software requirements for a software system.
3. Develop alternative design solutions to a given problem and recommend the best one within limitations of cost, time, knowledge, existing systems, and organizations.
4. Implement a given software design using development practices

BCS 608 - Cloud Computing

At the successful completion of this course you (the student) should be able to:

1. Students will be able to identify the role of Cloud Computing. To understand the working of current cloud technology trends.
2. Students will be able to analyse and understand cloud computing concepts and opportunities related with the cloud.
3. Students will be able to describe the role of network-based systems, distributed and cloud computing and virtualization.
4. Students will be able to understand description of virtual cluster-based systems and virtualization for data center automation.
5. Students will be able to create cloud-based systems with MS-Azure, Amazon-AWS, Google-GCP and configure the virtualization over there.

BCS 702 - Artificial Intelligence

At the successful completion of this course you (the student) should be able to:

1. To learn the Problem solving and Scope of AI
2. Explain Knowledge Representation & Natural Languages.
3. To impart the knowledge of Expert System & Robotics

BCS 703 - Information Storage and Management

At the successful completion of this course you (the student) should be able to:

1. Describe the challenges found in today's complex information management environment
2. Describe storage technology solutions (such as DAS, NAS, SAN and Virtualization technologies)
3. Explain the key business drivers for storage: Information Availability and Business Continuity
4. Illustrate common storage management roles and responsibilities
5. Describe the processes and technologies for identifying, analyzing security risks in storage infrastructure

BCS 704 - Compiler Construction

At the successful completion of this course you (the student) should be able to:

1. Describe the theory and practices involved in compilation process, in particular, the lexical analysis, parsing code generation and optimization phases of compilation.
2. Understand the issues related to the designing of a compiler for a programming language.
3. To study the implementation of various compiler design issues by undertaking various case studies.

BCS 705 - Programming with ASP .NET

At the successful completion of this course you (the student) should be able to:

1. Define object oriented terminology and C# programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application
5. Differentiate between C# and java programming language
6. Create projects using ASP.NET programming.

BCS 706 - Mobile Computing

At the successful completion of this course you (the student) should be able to:

1. Investigate various advanced wireless protocols for mobile communication.
2. Compare working of wired network and wireless networks.
3. Develop networking techniques to solve complex problems.
4. Create and maintain network used in wireless condition.

BCS 707 - Data Warehousing and Data Mining

At the successful completion of this course you (the student) should be able to:

1. Understand what data mining is and how data mining can be employed and applied to solve real problems.
2. Recognize whether a data mining solution is a feasible alternative for a specific problem.
3. Apply basic statistics to evaluate the results of data mining models.
4. Develop a comprehensive understanding of how several data mining techniques can be applied to solve problems.

BCS 802 - Cryptography and Network Security

At the successful completion of this course you (the student) should be able to:

1. Students will be able to understand the concept of different cryptography techniques transposition and substitution methods.
2. Students will be able to analyse the DES, IDEA, Feistel Cipher cryptographic algorithm.
3. Students will be able to understand and analyse public key Cryptosystem using RSA and learn various techniques used for the distribution of key in public key cryptosystem.
4. Students will be able to apply and evaluate Message authentication and hash function using MD5 and SHA and learn the concept of digital signature.
5. Students will be able to understand the concept of IP security and password message protocols.

BCS 803 - Digital Image Processing

At the successful completion of this course you (the student) should be able to:

1. Investigate the fundamental concepts of a digital image processing system.
2. Create the spatial domain and frequency domain image enhancement techniques.
3. Apply which tools of image processing should be applied in order to solve the real problems.
4. Develop Matlab algorithms for digital image processing operations such as histogram equalization, image enhancement, image restoration, image analysis, image compression, morphology, representation and description, filtering and denoising.



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Bachelor of Technology

(Mechanical Engineering)

Programme Code: BME

12998

Duration – 4 Years Full Time

Programme Structure

Credits Summary

B.Tech-M.E. (Bachelor of Technology) (04 Years/ 08 Semesters)						
Semester	Core Course (CC+PC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non-Teaching Credit Courses (NTCC)	Total
I	24	-	4	-	2	30
II	19	-	8	3	2	32
III	19	3	4	3		29
IV	18	3	4	3		28
V	13	3	4	3	3	26
VI	19	3	4	3		29
VII	12	3	4	-	3	22
VIII	15	3	-	-		18
Total	139	18	32	15	10	214

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non - Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

- Students will be able to apply knowledge of mathematics, science and engineering fundamentals to the solution of intricate engineering problems.
- Students will be able to identify, formulate and analyse complex engineering problems reaching substantiated conclusions using engineering methodology.
- Student will be able to design solutions for complex engineering problems and design systems, components, or processes that meet specified needs with appropriate consideration for societal, and environmental considerations.
- Students will be able to work effectively, as an individual or in a team effectively to solve any existing problem or working in team/individual for new innovations.
- Students will be able to demonstrate management skills and apply engineering principles, as a member and/or leader in a team to manage venture.

AMITY SCHOOL OF ENGINEERING TECHNOLOGY (ASET)

Program Name: B.Tech. – MECHANICAL ENGINEERING

FIRST SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
AM 101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics-I – Fields & Waves	CC	2	1	-	3
AC 103	Applied Chemistry	CC	2	1	-	3
BME 104	Elements of Mechanical Engineering	CC	2	1	-	3
BCS 105	Introduction to Computers & Programming in C	CC	2	1	-	3
BEE 106	Basic Electrical Engineering	CC	2	1	-	3
Practical Courses						
AP 122	Applied Physics-I – Fields & Waves Lab	PC	-	-	2	1
AC 123	Applied Chemistry Lab	PC	-	-	2	1
BME 124	Elements of Mechanical Engineering Lab	PC	-	-	2	1
BCS 125	Programming in C Lab	PC	-	-	2	1
BEE 126	Basic Electric Engineering Lab	PC	-	-	2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I Understanding Self For Effectiveness- I	VA	1	-	-	1
FLT 101	Foreign Language - I French	VA	2	-	-	2
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
TOTAL						30

AMITY SCHOOL OF ENGINEERING TECHNOLOGY (ASET)

Program Name: B.Tech. – MECHANICAL ENGINEERING

SECOND SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
AM 201	Applied Mathematics – II	CC	3	1	-	4
AP 202	Applied Physics-II – Modern Physics	CC	2	1	-	3
BCS 203	Object Oriented Programming using C ⁺⁺	CC	2	1	-	3
BME 204	Engineering Mechanics	CC	2	1	-	3
BME 205	Engineering Graphics	CC	1	-	-	1
BME 206	Domain Workshop	CC	1	-	-	1
Practical Courses						
AP 222	Applied Physics-II – Modern Physics Lab	PC	-	-	2	1
BCS 223	Object Oriented Programming using C ⁺⁺ Lab	PC	-	-	2	1
BME 224	Engineering Mechanics Lab	PC	-	-	2	1
BME 225	Engineering Graphics Lab	PC	-	-	2	1
						19
Open Elective						
	Open Elective-1	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioral Science – II Problem Solving & Creative Thinking	VA	1	-	-	1
FLT 201	Foreign Language – II French	VA	2	-	-	2
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
EVS 001	Environment Studies	VA	4	-	-	4
Non-Teaching Credit Course (NTCC)						
AND002	Anandan-II	NTCC	-	-	2	2
TOTAL						32

AMITY SCHOOL OF ENGINEERING TECHNOLOGY (ASET)

Program Name: B.Tech. – MECHANICAL ENGINEERING

THIRD SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BME 301	Numerical Analysis & Programming	CC	3	-	-	3
BME 302	Thermodynamics	CC	2	1	-	3
BME 303	Strength of Materials	CC	2	1	-	3
BME 304	Manufacturing Process	CC	3	-	-	3
BME 305	Computer Graphics	CC	2	-	-	2
Practical Courses						
BME 322	Thermodynamics Lab	PC	-	-	2	1
BME 323	Strength of Materials Lab	PC	-	-	2	1
BME 324	Manufacturing Process Lab	PC	-	-	2	1
BME 325	Computer Graphics Lab	PC	-	-	2	1
BME 326	Programming in MATLAB	CC	-	-	2	1
						19
DE Electives 1: Student has to select 1 course from the list of following DE electives						
BME 306	Alternative Source of Energy	DE	3	-	-	3
BME 307	Introduction to Optimization	DE	3	-	-	
BME 308	Green Vehicles Technology	DE	3	-	-	
BME 309	Solar Energy Fundamental	DE	3	-	-	
Open Elective						
	Open Elective-2	OE	3	-	-	3
Value Added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science-III, Interpersonal Communication	VA	1	-	-	1
	Foreign Language - III	VA	2	-	-	2
FLT 301	French					
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
TOTAL						29

AMITY SCHOOL OF ENGINEERING TECHNOLOGY (ASET)

Program Name: B.Tech. – MECHANICAL ENGINEERING

FOURTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BME 401	Kinematics and Dynamics of Machines	CC	3	-	-	3
BME 402	Fluid Mechanics	CC	3	1	-	4
BME 403	Metrology	CC	2	-	-	2
BME 404	Measurement and Control	CC	2	-	-	2
BME 405	Materials Science and Metallurgy	CC	2	-	-	2
Practical Courses						
BME 421	Kinematics and Dynamics of Machines Lab	PC	-	-	2	1
BME 422	Fluid Mechanics Lab	PC	-	-	2	1
BME 423	Metrology Lab	PC	-	-	2	1
BME 424	Measurement and Control Lab	PC	-	-	2	1
BME 425	Computer Aided Drafting & Design Lab	PC	-	-	2	1
						18
DE Electives 2: Student has to select 1 course from the list of following DE electives						
BME 406	Statistical Quality Control	DE	3	-	-	3
BME 407	Applied Tribology	DE	3	-	-	
BME 408	Non Destructive Testing Methods	DE	3	-	-	
BME 409	Two and Three Vehicles	DE	3	-	-	
Open Elective						
	Open Elective-3	OE	3	-	-	3
Value Added Courses						
BCS 401	Communication Skills - II	VA	1	-	-	1
BSS 404	Behavioral Science – IV, Relationship Management	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language - IV French German Spanish Chinese	VA	2	-	-	2
TOTAL						28

INDUSTRIAL TRAINING – I: 6-8 Weeks

AMITY SCHOOL OF ENGINEERING TECHNOLOGY (ASET)

Program Name: B.Tech. – MECHANICAL ENGINEERING

FIFTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BME 501	Machine Design – I	CC	3	-	-	3
BME 502	Advanced Manufacturing Process	CC	3	-	-	3
BME 503	Heat & Mass Transfer	CC	2	-	-	2
BCS-510	Web Development	CC	2	-	-	2
Practical Courses						
BME 521	Machine Design – I Lab	CC	-	-	2	1
BME 522	Advanced Manufacturing Process Lab	CC	-	-	2	1
BME 550	Practical Training (Evaluation)	NTCC	-	-	-	3
BCS-530	Web Development Lab	CC	-	-	2	1
						16
DE Electives 3: Student has to select 1 course from the list of following DE electives						
BME 504	Product Design and Development	DE	3	-	-	3
BME 505	MIS, ERP and Business	DE	3	-	-	
BME 506	Fuel Cells	DE	3	-	-	
BME 507	Management of Manufacturing Systems	DE	3	-	-	
Open Elective						
	Open Elective-4	OE	3	-	-	3
Value Added Courses						
BCS 501	Communication Skills - III	VA	1	-	-	1
BSS 504	Behavioral Science –V Group Dynamics & Team Building	VA	1	-	-	1
	Foreign Language – V	VA	2	-	-	2
FLT 501	French					
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
TOTAL						26

AMITY SCHOOL OF ENGINEERING TECHNOLOGY (ASET)

Program Name: B.Tech. – MECHANICAL ENGINEERING

SIXTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BME 601	Machine Design – II	CC	3	0	-	3
BME 602	Industrial Engineering & Operational Research	CC	3	1	-	4
BME 604	Automotive Engineering	CC	3	0	-	3
BME 605	Internal Combustion Engines	CC	3	-	-	3
BCS-610	Programming with Python	CC	2	-	-	2
Practical Courses						
BME 621	Machine Design – II Lab	PC	-	-	2	1
BME 622	Industrial Engineering & Operational Research Lab	PC	-	-	2	1
BME 624	Automotive Engineering Lab	PC	-	-	2	1
BCS-630	Programming with Python Lab	CC	-	-	2	1
						19
DE Electives 4: Student has to select 1 course from the list of following DE electives						
BME 606	Power Plant Engineering	DE	3	-	-	3
BME 607	Total Quality Management	DE	3	-	-	
BME 608	Creativity and Entrepreneurship Development	DE	3	-	-	
BME 609	Finite Element Analysis	DE	3	-	-	
Open Elective						
	Open Elective-5	OE	3	-	-	3
Value Added Courses						
BCS 601	Communication Skill – IV	VA	1	-	-	1
BSS 604	Behavioral Science – VI, Stress & Coping Strategies	VA	1	-	-	1
	Foreign Language - VI	VA	2	-	-	2
FLT 601	French					
FLG 601	German					
FLS 601	Spanish					
FLC 601	Chinese					
TOTAL						29

INDUSTRIAL TRAINING – II: 6-8 Weeks

AMITY SCHOOL OF ENGINEERING TECHNOLOGY (ASET)

Program Name: B.Tech. – MECHANICAL ENGINEERING

SEVENTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BME 701	Refrigeration & Air-conditioning	CC	2	-	-	2
BME 702	Computer Integrated Manufacturing	CC	2	-	-	2
BCS-710	Advanced Programming with Python	CC	2	-	-	2
Practical Courses						
BME 721	Refrigeration & Air-conditioning Lab	PC	-	-	2	1
BME 722	Computer Integrated Manufacturing Lab	PC	-	-	2	1
BCS-730	Advanced Programming with Python Lab	CC	-	-	2	1
BME 750	Industrial Training (Evaluation)	NTCC	-	-	-	3
BME 760	Seminar/Minor Project Stage- I	CC	-	-	-	3
						15
DE Electives 5: Student has to select 1 course from the list of following DE electives						
BME 703	Automation in Industries	DE	3	-	-	3
BME 704	Quality Engineering & Management Systems	DE	3	-	-	
BME 705	Rapid Prototyping	DE	3	-	-	
BME 706	Disaster Management	DE	3	-	-	
BME 707	Electric and Hybrid Vehicles	DE	3	-	-	
Value Added Courses						
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Behavioral Science – VII, Individual Society & Nation	VA	1	-	-	1
	Foreign Language – VII	VA	2	-	-	2
FLT 701	French					
FLG 701	German					
FLS 701	Spanish					
FLC 701	Chinese					
TOTAL						22

AMITY SCHOOL OF ENGINEERING TECHNOLOGY (ASET)

Program Name: B.Tech. – MECHANICAL ENGINEERING

EIGHTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BME 801	Plant Maintenance & Safety	CC	3	-	-	3
Practical Courses						
BME 860	Project Stage - II	CC	-	-	-	12
DE Electives 6: Student has to select 1 course from the list of following DE electives						
BME 802	Robotics	DE	3	-	-	3
BME 803	Project Management	DE	3	-	-	
BME 804	Flexible Manufacturing Systems	DE	3	-	-	
BME 805	Lean Manufacturing	DE	3	-	-	
BME 806	Automotive Safety and Ergonomics	DE	3	-	-	
TOTAL						18

Total Credits (30+32+29+28+26+29+22+18) = 214

Course Outcome

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY

B. Tech. Mechanical Engineering (ME)

BME 103 - Elements of Mechanical Engineering

At the successful completion of this course you (the student) should be able to:

1. Investigate – Basic machines used in the field of mechanical engineering
2. Create – mathematical models of fundamental physical phenomenon and apply them to predict the behaviour of engineering systems
3. Apply – this knowledge to analyse the working of IC Engines, Steam Turbines, Lathe machines etc.
4. Develop – Ability to perform and conduct basic experiments and evaluate the results of the same.

BME 205 Engineering Mechanics

At the successful completion of this course you (the student) should be

1. Able to analyse the force system and its effects.
2. Explain the nature of forces acting upon a system.
3. Evaluate the static and dynamic system's problem

BME 207-Engineering Graphics

At the successful completion of this course you (the student) should be able to:

1. Describe the theory of scales, engineering curves, different Projection used in engineering drawing.
2. Draw the different engineering curves, maps and projection of planes and solid accurately.
3. Identify different geometrical shape and their application used in engineering application.

BME 227- Engineering Graphics Lab

At the successful completion of this course you (the student) should be able to:.

1. Describe the basic of scales, engineering curves, orthographic and isometric projection used in engineering drawing.
2. Sketch accurately different engineering curves, maps and projection of planes , point and solid accurately.
3. Identify different geometrical shape and their application used in engineering application.

BME 301- Numerical Analysis and Programming

At the successful completion of this course you (the student) should be able to:

1. Create numerical methods to obtain approximate solutions to mathematical problems.
2. Explain the numerical methods for various mathematical operations
3. Evaluate the accuracy of common numerical methods.

BME-302 Thermodynamics

At successful completion of this course, you should be able to:

1. Relate the zeroth, first and second laws to basic thermodynamic properties, like energy, temperature, and entropy, and to interactions like work and heat
2. Interpret entropy change and entropy production and the related terms isentropic and reversible
3. Derive property relations in an easy manner, and get used to the steam tables
4. Solve problems by applying the first and second law of thermodynamics

BME303- Strength of Materials

At successful completion of this course, you should be able to:

1. Quote the stress and strain relationship and also distinguish the determinate and indeterminate structure.
2. Determine the shear force and bending moment diagrams for various beams.
3. Estimate the torsional load over shaft.
4. Illustrate principle stresses, knowledge of calculating deformation in thin cylindrical and spherical shells

BME 304-Manufacturing Processes

At the successful completion of this course the student would be able to:

1. Illustrate the basic principles of foundry practices and special casting processes, their Advantages, Limitations and Applications
2. Explain and relate the basics of hot and cold working process, their advantages, Limitations and Applications
3. Demonstrate the various types of joining processes and select the appropriate one according to the application
4. Illustrate basic principles of working of machine tools viz. Lathe, Milling, Grinding, Drilling machines etc.
5. Distinguish between basic manufacturing processes

BME 306-Alternative Energy Sources

At the successful completion of this course the student would be able to:

1. Understand the need of energy conversion and the various methods of energy storage
2. Explain the conversion process and field applications of solar energy
3. Identify Winds energy as alternate form of energy and to know how it can be tapped
4. Understand the Geothermal & Tidal energy, its mechanism of production and its applications
5. Illustrate the concepts of Direct Energy Conversion systems & their applications.

BME 307-Introduction to Optimization

At the successful completion of this course you (the student) should be able to:

1. Recognize, formulate, and solve linear programming problems
2. Understand the simplex method for linear programming
3. Learn nonlinear programming with constraints and no constraints
4. Understand multi-objective optimization and be able to generate Pareto
5. Model complex systems using surrogate modeling and design space reduction techniques
6. Apply numerical packages (MATLAB) to solve optimization problems

BME 401-Kinematics and Dynamics of Machines

At the successful completion of this course the student would be able to:

1. Identify the inversions of fundamental mechanisms and write their applications.
2. Analyze velocity and acceleration of different links of a given mechanism.
3. Classify gears and gear trains and compute velocity ratio.
4. Perform static and dynamic analysis to attain equilibrium in mechanisms and synthesize mechanisms for motion, path, and function generation.
5. Assess friction clutches, brakes dynamometer and Governors.

BME-402 Fluid Mechanics

At the successful completion of this course the student would be able to:

1. Define the different types of fluid and its properties.
2. Understand and analyze the different types of flow.
3. Solve simple problems relating to fluid
4. Define, analyze boundary layer.
5. Solve simple problems relating to the above concepts.

BME 403 - Metrology

At the successful completion of this course you (the student) should be able to:

1. Investigate – various national and international organizations from which we get many of our metrology references, resources, and standards.
2. Create – mathematical models of fundamental physical phenomenon and apply them to predict the behaviour of engineering systems
3. Apply – dimensional analysis concepts correctly by looking up reference values for unit conversions; accurately perform associated mathematics, and present final values with the correct units/symbols.
4. Develop – Ability to perform and conduct basic experiments and evaluate the results of the same.

BME 404 Measurement and Control

At the successful completion of this course you (the student) should be able to:

1. Develop a practical approach for the construction, characteristics, operation and application of measurement concepts.
2. Able to solve problems relating to generated voltage, terminal voltage, currents, torque, speed, input and output power, efficiency, and voltage/speed regulation in control systems.
3. Capable of solving problems relating to rotor speed, flux, torque, developed power, efficiency in M&C.
4. Able to identify, formulate, and solve the mechanical engineering related problems.

BME 405-Material Science and Metallurgy

At the successful completion of this course, the student should be able to:

1. Classify the materials
2. Understand the basic properties that characterize the behaviour of materials.
3. Understand the type of loadings/environment that materials should withstand
4. Select appropriate type of material for specific application
5. Offer different approaches to modify structure/microstructure in order to get desired properties

BME 407-Applied Tribology

At the successful completion of this course you (the student) should be able to:

1. Apply the basic theories of friction, wear and lubrication to predictions about the frictional behaviour of commonly encountered sliding interfaces.
2. Characterize features of rough surface and liquid lubricants as they pertain to interface sliding.

3. Interpret the latest research on new topics in tribology including its application to nanoscale devices and biological systems.
4. Establish a fundamental understanding of tribological engineering by balancing both, theoretical and practical aspects of tribology.
5. Illustrate the behaviour of tribological components subjected to different working conditions and describe different tribological measures.

BME 501-Machine Design – I

At the successful completion of this course you (the student) should be able to:

1. Analyse combined stresses in a plane (tension/compression and shear in two dimensions) using Mohr's Circle.
2. Evaluate the stress situation which involves additional design criteria other than static stress, such as cyclical loading and local stress concentrations due to notches.
3. Examine and identify the various elements involved in power transmission and rotary motion in a machine and analyse whether they are properly designed.
4. Understand and analyse the various elements of a machine followed by the appropriate selection of suitable components from manufacturers' catalogues.
5. Integrate the various individual elements into a system composed of several elements.

BME 502-Advanced Manufacturing Process

At the successful completion of this course you (the student) should be able to:

1. Investigate – Modern machines used in the field of mechanical engineering
2. Create –Fundamental physical phenomenon in advance machining and apply them to predict the outcome.
3. Apply – this knowledge to analyse the working of advance metal cutting operations
4. Develop – Ability to perform and conduct basic experiments and evaluate the results of the same to optimize the overall productivity

BME-503- Heat & Mass Transfer

At successful completion of this course, you should be able to:

1. Ability to do heat, mass and momentum transfer analysis.
2. Ability to analyze industrial problems along with appropriate boundary conditions.
3. Ability to develop steady and time dependent solutions along with their limitations.

BME 507- Management of Manufacturing Systems

At the successful completion of this course, the student should be able to:

1. Classify the materials

2. Understand the basic properties that characterize the behaviour of materials.
3. Understand the type of loadings/environment that materials should withstand
4. Select appropriate type of material for specific application
5. Offer different approaches to modify structure/microstructure in order to get desired properties

BME 601-Machine Design – Ii

At the successful completion of this course you (the student) should be able to:

1. Analyse combined stresses in a plane (tension/compression and shear in two dimensions) using Mohr's Circle.
2. Evaluate the stress situation which involves additional design criteria other than static stress, such as cyclical loading and local stress concentrations due to notches.
3. Examine and identify the various elements involved in power transmission and rotary motion in a machine and analyse whether they are properly designed.
4. Understand and analyse the various elements of a machine followed by the appropriate selection of suitable components from manufacturers' catalogues.
5. Integrate the various individual elements into a system composed of several elements.

BME 602-Industrial Engineering & Operation Research

At the successful completion of this course you (the student) should be able to:

1. Identify and develop operational research models from the verbal description of the real system.
2. Understand the meaning of Operations Research and how to use it. How to write linear program in the event of minimum cost or maximum profit.
3. Examine and identify to choose rational options in practical decision-making problems using standard mathematical models of operations research;
4. Have skills in analysis of operations research objectives, mathematical methods and computer systems.
5. Know principles of construction of mathematical models of conflicting situations and mathematical analysis methods of operations research;

BME 604-Automotive Engineering

At the successful completion of this course the student would be able to:

1. Identify the different parts of the automobile
2. Explain the working of various parts like engine, transmission, clutch, brakes
3. Describe how the steering and the suspension systems operate.
4. Understand the environmental implications of automobile emissions

5. Develop a strong base for understanding future developments in the automobile industry

BME 605-Internal Combustion Engines

At the successful completion of this course you (the student) should be able to:

1. Investigate –Cycles used in the Internal combustion engines and gas turbines.
2. Create – mathematical models of fundamental physical phenomenon and apply them to predict the behaviour of engineering systems
3. Apply – this knowledge to analyse the working of IC Engines and gas turbines.
4. Develop – Ability to perform and conduct basic experiments and evaluate the results of the same.

BME 701-Refrigeration & Air Conditioning

At successful completion of this course, you should be able to:

1. Illustrate the fundamental principles and applications of refrigeration and air conditioning system
2. Obtain cooling capacity and coefficient of performance by conducting test on vapour compression refrigeration systems
3. Present the properties, applications and environmental issues of different refrigerants
4. Calculate cooling load for air conditioning systems used for various
5. Operate and analyse the refrigeration and air conditioning systems.

BME 702-Computer Integrated Manufacturing

At the successful completion of this course the student would be able to:

1. A thorough understanding of engineering science or construction through application of your knowledge;
2. The ability to deal with the multi-disciplinary nature of modern engineering;
3. A creative approach to problem solving;
4. The self motivated approach required for success in university education and
5. The interpersonal and management skills needed when working in teams to fixed deadlines.

BME 801-Plant Maintenance & Safety

At the successful completion of this course the student would be able to:

1. Understand the various plant hazards encountered in industry as well as protective equipments.
2. Recognize troubles in mechanical elements.
3. Assemble, dismantle and align mechanisms in sequential order.
4. Carry out plant maintenance using periodic and preventive maintenance
5. Understand importance of plant Maintenance in an Industry.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING &
TECHNOLOGY (ASET)**

B.Tech (Civil Engineering)

Programme Code: BCE

12158

Duration – 4 Years Full Time

Programme Structure

Credits Summary

B.Tech Civil Engineering (04 Years/ 08 Semesters)							
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Minor Track/ Open Elective (MT/OE)	Non-Teaching Credit Courses (NTCC)	Anandam	Total
I	24	-	4	-	-	2	30
II	23	-	4	3	-	2	32
III	19	2	4	3	-	2	30
IV	18	2	4	3	-	2	29
V	20	2	4	3	3	2	34
VI	18	3	4	3	-	2	30
VII	9	2	4	-	6	2	23
VIII	6	3	-	-	12	-	21
Total	137	14	28	15	21	14	229

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non - Teaching Credit Courses (NTCC)

PROGRAMME STRUCTURE

B. Tech-Civil Engineering

FIRST SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Core Courses						
AM 101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics - I – Fields & Waves	CC	2	1	-	3
AC 103	Applied Chemistry	CC	2	1	-	3
BME 104	Elements of Mechanical Engineering	CC	2	1	-	3
BCS 105	Introduction to Computers & Programming in C	CC	2	1	-	3
BEE 106	Basic Electrical Engg.	CC	2	1	-	3
Practical Courses						
AP 122	Applied Physics - I Lab	CC	-	-	2	1
AC 123	Applied Chemistry Lab	CC	-	-	2	1
BME 124	Elements of Mechanical Engineering Lab	CC	-	-	2	1
BCS 125	Programming in C Lab	CC	-	-	2	1
BEE 126	Basic Electrical Engg. Lab	CC	-	-	2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Understanding Self for Effectiveness	VA	1	-	-	1
FLF 101 FLG 101 FLS 101 FLC 101	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
	TOTAL					30

SECOND SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Core Courses						
AM 201	Applied Mathematics - II	CC	3	1	-	4
AP 202	Applied Physics-II – Modern Physics	CC	2	1	-	3
BCS 203	Object Oriented Programming in C++	CC	2	1	-	3
BME 204	Engineering Mechanics	CC	2	1	-	3
BME 205	Engineering Graphics	CC	2	-	-	2
EVS 001	Environmental Studies	CC	4	-	-	4
Practical Courses						
AP 222	Applied Physics–II–Modern Physics Lab	CC	-	-	2	1
BCS 223	Object Oriented Programming in C++Lab	CC	-	-	2	1
BME 224	Engineering Mechanics Lab	CC	-	-	2	1
BME-225	Engg. Graphics Lab	CC			2	1
Open Elective						
BCE 207	OE-I	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioural Science – II	VA	1	-	-	1
FLF 201 FLG 201 FLS 201 FLC 201	Foreign Language - II French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND002	Anandam-II	NTCC	-	-	-	2
	TOTAL					32

THIRD SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Core Courses						
AM 301	Applied Mathematics – III	CC	2	1	-	3
BCE 302	Mechanics of Solids	CC	2	1	-	3
BCE 303	Mechanics of Fluids	CC	2	1	-	3
BCE 304	Building Technology	CC	3	-	-	3
BCE 305	Surveying-I	CC	3	-	-	3
Practical Courses						
BCE 322	Mechanics of Solids Lab	CC	-	-	2	1
BCE 323	Mechanics of Fluids Lab	CC	-	-	2	1
BCE 324	Building Drawing Lab	CC	-	-	2	1
BCE 325	Surveying-I Lab	CC	-	-	2	1
Domain Elective-I : Choose any one from the following courses						
BCE 306	Engineering Geology	DE	2	-	-	2
BCE 307	Remote Sensing & Geographic Information Systems	DE	2	-	-	
Open Elective						
	OE-II	OE	3	-	-	3
Value Added Course						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioural Science – III	VA	1	-	-	1
	Foreign Language – III	VA	2	-	-	2
FLF 301	French					
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
Non-Teaching Credit Course (NTCC)						
AND003	Anandam-III	NTCC	-	-	-	2
TOTAL						30

FOURTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours	Tutorial (T) Hours	Practical (P) Hours	Total Credits
Core Courses						
BCE 401	Numerical Analysis & Programming	CC	3	-	-	3
BCE 402	Structural Analysis - I	CC	3	-	-	3
BCE 404	Transportation Engineering - I	CC	3	-	-	3
BCE 405	Structural Steel-1	CC	2	1	-	3
BCE 406	Fluid Mechanics and Hydraulic	CC	2	-	-	2
Practical Courses						
BCE 421	Numerical Analysis & Programming	CC	-	-	2	1
BCE 423	Surveying –II Lab	CC	-	-	2	1
BCE 424	Highway Materials Testing Lab	CC	-	-	2	1
BCE 426	Fluid Mechanics and Hydraulic Machines Lab	CC	-	-	2	1
Domain Elective-II : Choose any one from the following courses						
BCE 408	Computer Aided Analysis & Design in Civil Engineering	DE	2	-	-	2
BCE 403	Surveying-II	DE	2	-	-	
Open Elective						
	OE-III	OE	3	-	-	3
Value Added Courses						
BCS 401	Communication Skills - II	VA	1	-	-	1
BSS 404	Behavioural Science – IV	VA	1	-	-	1
FLF 401 FLG 401 FLS 401 FLC 401	Foreign Language – IV French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND004	Anandam-IV	NTCC	-	-	-	2
	TOTAL					29

SUMMER TRAINING - I (6-8 WEEKS)

FIFTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Core Courses						
BCE 501	Structural Analysis - II	CC	2	1	-	3
BCE 502	Structural concrete design –I(LSM)	CC	3	1	-	4
BCE 503	Geotechnical Engineering - I	CC	2	1	-	3
BCE 504	Transportation Engineering - II	CC	3	-	-	3
BCE 505	Irrigation Structures and Water Resource Engineering	CC	3	-	-	3
BCS 510	Web Development	CC	2	-	-	2
Practical Courses						
BCE 523	Geotechnical Engineering Lab	CC	-	-	2	1
BCS 530	Web Development Lab	CC	-	-	2	1
Domain Elective-III : Choose any one from the following courses						
BCE 507	Architecture & Town Planning	DE	2	-	-	2
BCE 508	Hydrology and flood control	DE	2	-	-	
Open Elective						
	OE-IV	OE	3	-	-	3
Value Added Courses						
BCS 501	Communication Skills - III	VA	1	-	-	1
BSS 504	Behavioural Science – V	VA	1	-	-	1
FLF 501 FLG 501 FLS 501 FLC 501	Foreign Language – V French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
BCE 550	In-house Practical Training (Evaluation)	NTCC	-	-	-	3
AND005	Anandam-V	NTCC	-	-	-	2
	TOTAL					34



SIXTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Core Courses						
BCE 601	Environmental Engineering - I	CC	3	-	-	3
BCE 602	Structural Concrete Design-II(SCD)	CC	2	1	-	3
BCE 603	Structural Steel Design-II	CC	2	1	-	3
BCE 604	Concrete Technology	CC	3	-	-	3
BCS 610	Programming with Python	CC	2	-	-	2
Practical Courses						
BCE 621	Environmental Engineering Lab	CC	-	-	2	1
BCE 622	Structural Detailing Lab	CC	-	-	2	1
BCE 624	Concrete Technology Lab	CC	-	-	2	1
BCS 630	Programming with Python Lab	CC	-	-	2	1
Domain Elective-IV : Choose any one from the following courses						
BCE 605	Geotechnical Engineering – II	DE	3	-	-	3
BCE 606	Traffic Engineering & Management	DE	3	-	-	
BCE 607	Computer Application in Hydro Engineering	DE	3	-	-	
BCE 608	Water Resources Systems Planning & Design	DE	3	-	-	
BCE 609	Advanced Concrete Design	DE	3	-	-	
Open Elective						
	OE-V	-	3	-	-	3
Value Added Courses						
BCS 601	Communication Skills - IV	VA	1	-	-	1
BSS 604	Behavioural Science – VI	VA	1	-	-	1
FLF 601	Foreign Language – VI	VA	2	-	-	2
FLG 601	French					
FLS 601	German					
FLC 601	Spanish					
	Chinese					
Non-Teaching Credit Course (NTCC)						
AND006	Anandam-VI	NTCC	-	-	-	2
	TOTAL					30

SUMMER TRAINING-II (6-8WEEKS)

SEVENTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Core Courses						
BCE 701	Environmental Engineering – II	CC	3	-	-	3
BCE 702	Quantity survey and estimation	CC	2	1	-	3
BCS 710	Advanced Programming with Python	CC	2	-	-	2
BCS 730	Advanced Programming with Python Lab	CC	-	-	2	1
Domain Elective-V : Choose any one from the following courses						
BCE 707	Pavement Analysis & Design	DE	2	-	-	2
BCE 708	Pre-stressed Concrete	DE	2	-	-	
Value Added Courses						
BCS 701	Communication Skills - V	VA	1	-	-	1
BSS 704	Behavioral Science – VII	VA	1	-	-	1
FLF 701	Foreign Language – VI I	VA	2	-	-	2
FLG 701	French					
FLS 701	German					
FLC 701	Spanish Chinese					
Non-Teaching Credit Course (NTCC)						
BCE 750	Industrial Training (Evaluation)	NTCC	-	-	-	3
BCE 760	Seminar	NTCC	-	-	-	3
AND007	Anandam-VII	NTCC	-	-	-	2
	TOTAL					23

EIGHTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Core Courses						
BCE 801	Engineering Economics & Management	CC	2	-	-	3
BCE 802	Construction Equipment and Project Management	CC				3
Domain Elective-VI : Choose any one from the following courses						
BCE 803	Finite Element Method	DE	3	-	-	3
BCE 804	Advanced Structural Analysis	DE	3	-	-	
Non-Teaching Credit Course (NTCC)						
BCE 860	Project	NTCC	-	-	-	12
	TOTAL					21

Total Credits = 229**Minor Track for Civil Engg.**

Course Code	Sem.	Course Title	Category	L	T	P	Total
BCE 207	II	Basic Civil Engineering	MT	3			3
BCE-304	III	Building Technology	MT	3			3
BCE-404	IV	Transportation Engineering – I (Highway Engineering)	MT	3			3
BCE-508	V	Hydrology and flood control	MT	3			3
BCE-604	VI	Concrete Technology	MT	3			3
Total							15

Course Outcome

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY B. Tech. Civil Engineering

BCE 302 - MECHANICS OF SOLIDS

At the successful completion of this course you (the student) should be able to:

1. Determine the stresses and strains in the members subjected to axial, bending and torsional loads.
2. Determine the principal stresses and strains in structural members
3. Evaluate the shear force & bending moment on different type of structures
4. Analyse thin cylinders, thick cylinders & columns.

BCE 303 - MECHANICS OF FLUIDS

At the successful completion of this course you (the student) should be able to:

1. Able to explain the effect of fluid properties on a flow system.
2. Able to identify type of fluid flow patterns and describe continuity equation
3. The effect of impact of jet on various vanes and to study the working of hydroelectric power station
4. To select and analyse an appropriate turbine with reference to given situation in power plants
5. To estimate performance parameters of a given Centrifugal and Reciprocating pump.

BCE 304 - BUILDING TECHNOLOGY

At the successful completion of this course you (the student) should be able to:

1. Able to explain the effect of fluid properties on a flow system.
2. Able to identify type of fluid flow patterns and describe continuity equation
3. The effect of impact of jet on various vanes and to study the working of hydroelectric power station
4. To select and analyse an appropriate turbine with reference to given situation in power plants
5. To estimate performance parameters of a given Centrifugal and Reciprocating pump.

BCE 305 - SURVEYING-I

At the successful completion of this course you (the student) should be able to:

1. To define the relative position of objects on earth surface.
2. Establishing the points on ground which are predetermined on paper.
3. Determine the reduced level for different points on ground surface.
4. Calculation of area and volume for various earth work.
5. Identify and examine the suitable methods to execute surveying work.

BCE 306 - ENGINEERING GEOLOGY (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Understand & classify various weathering process.

2. Identify and distinguish diverse geological formations.
3. Understand internal geological developments (e.g. faults, earthquakes, volcanoes) and their effect on engineering structures.
4. Identify basic rock types and their properties.
5. Apply geological principles for reduction of natural hazards and select sites for dams and tunnels.

BCE 307 - REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEMS
(Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Gain background knowledge and understanding of principles of RS, RS Sensors and systems;
2. Overview information retrieval of earth surface features using multi-resolution, multi-scale and multi-temporal imagery;
3. Understand the concept image processing and classification techniques; and
4. Enable spatial and temporal thinking to relate remote sensing for real-world applications.
5. Use various remote sensing data types / formats, imagery products;

BCE 401 - NUMERICAL ANALYSIS AND PROGRAMMING

At the successful completion of this course you (the student) should be able to:

1. Use the solution to applied problem when ordinary analytical method fails
2. Apply the techniques in design of engineering and scientific problems
3. Find the solution of differential equation
4. Fit different type of curves for given data.
5. Solve integration and differentiation numerically.

BCE 402 - STRUCTURAL ANALYSIS - I

1. At the successful completion of this course you (the student) should be able to:
2. Investigate one dimensional structures using simple methods of structural analysis
3. Create his own judgement regarding analysis method required for specific type of problem.
4. Apply these methods to the real-life structures
5. Develop his interest structural engineering designing field.

BCE 403 - Surveying –II (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. To define the hydro graphic routes.
2. To learn about errors in measurements and their adjustments in a traverse.
3. To get introduced to modern advanced surveying techniques involved such as Remote sensing, Total station, GPS, Photogrammetric etc.
4. Setting out of various curves for the construction of ways.
5. Identify and examine the suitable methods to execute surveying work.

BCE 404 - TRANSPORTATION ENGINEERING – I

At the successful completion of this course you (the student) should be able to:

1. Identify and describe the basic modules of transportation system, their role, importance and characteristics.
2. Analyse and critically evaluate traffic surveys to collect road traffic data.
3. Identify and examine traffic related problems and propose long term solutions for it.
4. Understand the dynamic interaction of the driver, roadway, and vehicle.
5. Design transport system components, in particular geometric design of roads and intersections.

BCE 405 - STRUCTURAL STEEL-I

At the successful completion of this course you (the student) should be able to:

1. Investigate the strength and design capacity of various steel elements in structures.
2. Create his own judgement regarding analysis method required for specific type of problem.
3. Apply these methods to the real life structures
4. Develop his interest in design of steel structures field.

BCE 406 - Fluid Mechanics and Hydraulic Machines

At the successful completion of this course you (the student) should be able to:

1. Able to explain the effect of fluid properties on a flow system.
2. Able to identify type of fluid flow patterns and describe continuity equation
3. Apply the effect of impact of jet on various vanes and to study the working of hydroelectric power station
4. To select and analyse an appropriate turbine with reference to given situation in power plants

5. To estimate performance parameters of a given Centrifugal and Reciprocating pump.

BCE 408 - COMPUTER AIDED ANALYSIS AND DESIGN IN CIVIL ENGINEERING (Domain Elective)

On completion of this course, the students will be able to

1. Understand the details of STAAD.Pro software package.
2. To prepare input data of STAAD.Pro.
3. Run STAAD.Pro for analysis and designing of structures.
4. Design different components of structures.

BCE 501 - STRUCTURAL ANALYSIS – II

At the successful completion of this course you (the student) should be able to:

1. Analyze one dimensional and two dimensional structures using advanced methods of structural analysis
2. Analyze the effect of rolling loads on bridges & girders
3. Analyze structures up to three degrees of indeterminacy
4. Analyze cables and suspension bridges
5. Understanding the methods for influence line diagrams of various structures.

BCE 502 - STRUCTURAL CONCRETE DESIGN-I (LSM)

At the successful completion of this course you (the student) should be able to:

1. Understand the properties and role of various constituent materials used in concrete making.
2. Understand the properties of concrete and various design mix techniques for concrete
3. Apply the fundamental concepts, techniques in analysis and design of reinforced concrete elements i.e. beam & slab
4. Apply the various codal requirements related to RC members i.e. slab & beam.

BCE 503 - GEOTECHNICAL ENGINEERING - I

At the successful completion of this course you (the student) should be able to:

1. To understand the soil formation (i.e. Science) and determination of its physical and engineering properties using mathematical and engineering knowledge. Establishing the points on ground which are predetermined on paper.
2. To identify problems involving complex soil behavior and understanding the complex phenomenon using basic principles of mathematics, natural sciences and engineering sciences.
3. Figure out solution of soil related problems faced by the engineering society using both theoretical knowledge and soil testing.
4. Use existing knowledge/experimental setup for understanding the complex mechanisms within the soil.
5. Develop an understanding regarding responsibilities of professional engineers at the site and dealing with expected legal and cultural issues at the site.

BCE 504 - TRANSPORTATION ENGINEERING - II

At the successful completion of this course you (the student) should be able to:

1. To impart knowledge of various components of railway engineering in a broader context.
2. To study about the types and functions of track, junctions and railway stations
3. To learn about the aircraft characteristics, planning and components of airport
4. To study about the types and components of docks and harbours

BCE 505 - IRRIGATION STRUCTURES AND WATER RESOURCES ENGINEERING

At the successful completion of this course you (the student) should be able to:

1. Plan an Irrigation System
2. Design irrigation canals and canal network
3. Plan and design diversion head works
4. Design irrigation canal structures
5. Analyze gravity and earth dams

BCE 507 - ARCHITECTURE AND TOWN PLANNING (Domain Elective)

At the successful completion of this course you (the student) should be able to:

- 1) To know the basic concept Architecture design

- 2) To assess the site planning and layout regulations/concepts
- 3) To assess various different type of buildings residential/ institutional/ commercial/
industrial
- 4) To find various environment friendly/ green building concepts
- 5) To know the concept of Urban planning and zoning regulations
- 6) To assess the conservation-principles of landscape designs

BCE 508 - HYDROLOGY AND FLOOD CONTROL (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Analyse of Hydrologic Cycle, Water budget equation and water balance studies.
2. Compute of average rainfall and depth-area-duration relationship,
3. Calculate infiltration, infiltration capacity values and infiltration indices. Methods of Evaporation estimation and Measurements of reservoir evaporation. Computation of Evapotranspiration
4. Develop flow duration curve and flow mass curve.
5. Estimate of Direct Runoff and Direct Runoff hydrograph. Derivation of Unit Hydrograph

BCE 601 - ENVIRONMENTAL ENGINEERING – I

At the successful completion of this course you (the student) should be able to:

1. Identify and describe the basic modules of drinking water system, its distribution and collection systems.
2. Analyse and critically evaluate basic quality issues associated with water and treatment process design characteristics.
3. Design and examine the operation of water distribution.
4. Understand the treatment options and principles of conventional treatment systems.
5. Design pipe system and its components, in particular meters, valves and hydrants in pipe networks.

BCE 602 - Structural Concrete Design-II (SCD)

At the successful completion of this course you (the student) should be able to:

1. Design various sub-structure components like isolated footing, combined footing, retaining walls, along with relevant IS code requirements.
2. Design various sub and super-structure components like stairs, retaining wall, continuous beams, along with relevant IS code requirements.
3. Apply the concepts of structure design to special structural elements like curved beams, domes, water retaining structures, bridges along with relevant IS code requirements
4. Analyze and Design of slab culvert, box culvert and skew bridge

BCE 603 - STRUCTURAL STEEL DESIGN- II

At the successful completion of this course you (the student) should be able to:

1. Investigate complex steel structures using advanced methods of analysis & design.
2. Create his own judgement regarding optimum analysis method required for specific type of problem.
3. Apply these methods to the real life steel structures
4. Develop his interest structural engineering designing field.

BCE 604 - CONCRETE TECHNOLOGY

At the successful completion of this course you (the student) should be able to:

1. Understand & identify the properties of the constituent materials of concrete
2. Identify and demonstrate the behavior of fresh and hardened concrete.
3. Design concrete mixes as per IS and ACI codes
4. Identify, describe and carry out the main laboratory tests on concrete constituents.
5. Demonstrate recent advancements in concreting materials and procedures.

BCS 610 - PROGRAMMING WITH PYTHON

After completion of this course, student will be able to

1. To learn basics of Python.
2. To develop console application in python.
3. To develop database application in python.
4. To develop basic machine learning application.

BCE 605 - GEOTECHNICAL ENGINEERING – II (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. To understand the pressure exerted by the soil on retaining walls.
2. To identify problems involving complex soil behavior and understanding the complex phenomenon using basic principles of mathematics, natural sciences and engineering sciences.
3. Figure out solution of soil related problems faced by the engineering society using both theoretical knowledge and soil testing.
4. Use existing knowledge/experimental setup for understanding the complex mechanisms within the soil.
5. Develop an understanding regarding responsibilities of professional engineers at the site and dealing with expected legal and cultural issues at the site.

BCE 606 - TRAFFIC ENGINEERING AND MANAGEMENT (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Understand the concepts of traffic and transportation terminology, methodology & principles.
2. Analyse, predict, and formulate designs based upon technical data and standards thus providing solutions to transport and traffic problems.
3. Perform basic statistical analysis of traffic data with Use speed-flow relationships and conduct shockwave analysis.
4. Analyze capacity of different kinds of roads and intersections and Design traffic signal timing.

5. Develop and evaluate traffic systems on the basis of sustainability of the transportation and thereby deliver positive outcomes for the society.

BCE 607 - COMPUTER APPLICATION IN HYDRO ENGINEERING (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Identify the operational features of computer program and their use in engineering computations
2. Learn how the potential for extreme hydrologic events (e.g. floods and droughts) are analyzed and quantified.
3. Understand the importance of insuring water resources that are adequate from both a quantitative and qualitative standpoint
4. Design and implement smart, intelligent, and user friendly interfaces for computer applications

BCE 608 - WATER RESOURCES SYSTEM PLANNING AND DESIGN (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Understand how water resources are developed and how needs are quantified.
2. Learn how the potential for extreme hydrologic events (e.g. floods and droughts) are analyzed and quantified.
3. Understand the importance of insuring water resources that are adequate from both a quantitative and qualitative standpoint.

BCE 609 - ADVANCED CONCRETE DESIGN (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Investigate multi-dimensional structures using advanced methods & software of structural analysis.
2. Create his own judgement regarding optimum analysis method required for specific type of problem.
3. Apply these methods to the real-life structures.
4. Develop his interest in structural engineering designing field.

BCE 701 - ENVIRONMENTAL ENGINEERING - II

At the successful completion of this course you (the student) should be able to:

1. Identify and describe types of sewage and sewerage systems used.
2. Design, analyse and critically evaluate various types of sewers and their hydraulic design.
3. Identify and examine various types of sewage treatment processes like preliminary, biological, etc.
4. Understand the critical nature of wastewater disposal and reuse, plumbing design of building, layout of house drainage.
5. Identify and examine sources, effect and control techniques of air pollution

BCE 701 - QUANTITY SURVEY AND ESTIMATION

At the successful completion of this course you (the student) should be able to:

1. To recognize and understand engineering drawing and graphics as a language of communication.

2. To gain concept of broader aspect of civil engineering drawing and also to understand the fundamentals of architectural, structural, plumbing and electrical drawings,
3. To design and construct the individual ideas of products in the form of a complete engineering drawing
4. To effectively read, detailed estimation of common items of work in building construction and of some simple buildings. Also to understand and reproduce engineering drawing
5. Have skills to architectural, structural, plumbing, electrical, hydraulic structures and highway/motorway drawings

BCS 710 - ADVANCED PROGRAMMING WITH PYTHON

At the successful completion of this course you (the student) should be able to:

1. Describe the semantics of Python programming language and illustrate the process of structuring the data using lists, dictionaries, tuples, strings and sets.
2. Illustrate the Object-oriented Programming concepts in Python.
3. Demonstrate the basic database design for storing data as part of a multi-step data gathering, analysis, and processing.
4. Familiarize the basics of machine learning using an approachable, and also understand the advantage of using Python libraries for implementing Machine Learning models.

BCE 707 - Pavement Analysis & Design (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Apply concepts of pavement performance by characterizing traffic loads for pavement design and analysis.
2. Understand and account for climatic factors in pavement design and analysis by understanding the strength and durability of pavement materials.
3. Understand pavement construction procedures for flexible and rigid pavements using standard methods.
4. Understand mechanisms of pavement deterioration and identify distress types and provide pavement condition assessments of drainage in road pavements.
5. Recommend pavement preservation techniques by conducting mechanistic analyses of pavement structures using computer software.

BCE 708 - PRESTRESSED CONCRETE (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Investigate the principles, materials, methods and systems of prestressing
2. Create the different types of losses and deflection of prestressed members Apply these methods to the real-life structures
3. Develop the design of prestressed concrete beams for flexural, shear and tension and to calculate ultimate flexural strength of beam
4. To apply the design of anchorage zones, composite beams, analysis and design of continuous beam

BCE 801 - ENGINEERING ECONOMICS AND MANAGEMENT

At the successful completion of this course you (the student) should be able to:

1. Apply understanding of mathematics, economics, and engineering principles to solve civil engineering problems.
2. Identify and understand cost elements of the product and its effect on decision making.
3. Understand the implications of taxes, depreciation, and inflation and its impact on the company.
4. Apply engineering economic techniques on solving engineering problems by using computer tools such as MS Excel.
5. Develop the ability to interpret time value of money using engineering economics factors and formulas.

BCE 802 - CONSTRUCTION EQUIPMENT AND PROJECT MANAGEMENT

At the successful completion of this course you (the student) should be able to:

1. Understand the roles and responsibilities of a project manager
2. Prepare schedule of activities in a construction project
3. Prepare tender and contract document for a construction project
4. Understand safety practices in construction industry
5. Identify the equipment used in construction

BCE 803 - FINITE ELEMENT METHOD (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. To learn basic principles of finite element analysis procedure.
2. To learn the theory and characteristics of finite elements that represent engineering structures
3. To learn and apply finite element solutions to structural, thermal, dynamic problem to develop the knowledge and skills needed to effectively evaluate finite element analyses.

BCE 804 - ADVANCED STRUCTURAL ANALYSIS (Domain Elective)

At the successful completion of this course you (the student) should be able to:

1. Investigate multi-dimensional structures using advanced methods & software of structural analysis.
2. Create his own judgement regarding optimum analysis method required for specific type of problem.
3. Apply these methods to the real-life structures.
4. Develop his interest in structural engineering designing field.



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Bachelor of Technology

(Chemical Engineering)

Programme Code: BTH

Duration – 4 Years Full Time

Programme Structure

Credits Summary

B.Tech Chemical Engineering (04 Years/ 08 Semesters)						
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non-Teaching Credit Courses (NTCC)	Total
I	24	-	4	-	2	30
II	19	-	8	3	2	32
III	16	4	4	3	-	27
IV	13	4	4	3	-	24
V	21	3	4	3	3	34
VI	21	3	4	3	-	31
VII	14	-	4	3	6	27
VIII	10	-	-	-	12	22
Total	138	14	32	18	25	227

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non – Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

- Graduates are able to apply the technical knowledge and skills required to solve real-world chemical engineering problems within their organizations.
- To enable graduates to undertake design development, production, managerial activities in the areas of chemical engineering.
- Excel in careers in the chemical, petroleum, petrochemical, pharmaceutical, food, energy, materials processing or other related industries/organizations.
- Pursue advanced degrees for a career in engineering, academia, business, or research and development.
- Demonstrate high-level of professionalism, ethical and social responsibility, independent learning, and desire for life-long learning.

PROGRAMME STRUCTURE

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Program Name: B.Tech – Chemical Engineering

FIRST SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per week	Tutorial (T) Hours Per week	Practical (P) Hours Per week	Total Credits
Core Courses						
AM-101	Applied Mathematics – I	CC	3	1	-	4
AP-102	Applied Physics – I – Fields & Waves	CC	2	1	-	3
AC- 103	Applied Chemistry	CC	2	1	-	3
BME-104	Element of Mechanical Engineering	CC	2	1	-	3
BCS- 105	Introduction to Computers & Programming in C	CC	2	1	-	3
BEE-106	Basic Electrical Engineering	CC	2	1	-	3
AP-122	Applied Physics – I – Fields & Waves	CC			2	1
AC-123	Applied Chemistry Lab	CC			2	1
BME- 124	Element of Mechanical Engineering Lab	CC			2	1
BCS- 125	Programming in C Lab	CC			2	1
BEE-126	Basic Electrical Engineering Lab	CC			2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I Understanding Self For Effectiveness- I	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language – I French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
	TOTAL					30

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Program Name: B.Tech –Chemical Engineering

SECOND SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per week	Tutorial (T) Hours Per week	Practical (P) Hours Per week	Total Credits
Core Courses						
AM- 201	Applied Mathematics – II	CC	3	1	-	4
AP-202	Applied Physics – II – Modern Physics	CC	2	1	-	3
BCS- 203	Object Oriented Programming in C ⁺⁺	CC	2	1	-	3
BME-204	Engineering Mechanics	CC	2	1	-	3
BME-205	Engineering Graphics	CC	1	-	-	1
BME 206	Domain Workshop	CC	1	-	-	1
AP- 222	Applied Physics – II – Modern Physics	CC	-	-	2	1
BCS- 223	Object Oriented Programming in C ⁺⁺ Lab	CC	-	-	2	1
BME- 224	Engineering Mechanics Lab	CC	-	-	2	1
BME-225	Engineering Graphics Lab	CC	-	-	2	1
	Open Elective-1	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioral Science – II Problem Solving & Creative Thinking	VA	1	-	-	1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
EVS-001	Environmental Studies	VA	4			4
Non-Teaching Credit Course (NTCC)						
AND002	Anandam-II	NTCC	-	-	2	2
	TOTAL					32

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Program Name: B.Tech –Chemical Engineering

THIRD SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per week	Tutorial (T) Hours Per week	Practical (P) Hours Per week	Total Credits
Core Courses						
AM- 301	Applied Mathematics – III	CC	3	1	-	4
BTH- 302	Fluid and Particle Mechanics	CC	3	1	-	4
BTH- 303	Chemical Process Calculations	CC	3	1	-	4
BTH-304	Chemical Technology-I	CC	2	1	-	3
BTH- 322	Fluid Mechanics Lab	CC	-	-	2	1
Domain Elective-I : Choose any one from the following courses						
BTH- 305	Material Science	DE	3	1	-	4
BTH-306	Polymer Technology	DE	3	1	-	4
	Open Elective –II	OE				3
Value Added Course						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science-III (Interpersonal Communication)	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language – III French German Spanish Chinese	VA	2	-	-	2
	TOTAL					27

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Program Name: B.Tech –Chemical Engineering

FOURTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per week	Tutorial (T) Hours Per week	Practical (P) Hours Per week	Total Credits
Core Courses						
BTH-401	Chemical Technology-II	CC	2	1	-	3
BTH-402	Chemical Engineering Thermodynamics-I	CC	3	1	-	4
BTH- 403	Mechanical Operations	CC	3	1	-	4
BTH- 421	Chemical Technology Lab	CC	-	-	2	1
BTH- 423	Mechanical Operation Lab	CC	-	-	2	1
Domain Elective-II : Choose any one from the following courses						
BTH- 404	Numerical Analysis	DE	2	1	-	3
BTH- 424	Numerical Analysis Lab (DE-II)	DE	-	-	2	1
BTH- 405	Corrosion Science and Engg.	DE	3	1	-	4
	Open Elective –III	OE				3
Value Added Courses						
BCS 401	Communication Skills - II	VA	1	-	-	1
BSS 404	Behavioral Science – IV, Relationship Management	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language – IV French German Spanish Chinese	VA	2	-	-	2
	TOTAL					24

Note: -Industrial Training completed during summer vacations and will be evaluated in fifth Semester.

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Program Name: B.Tech –Chemical Engineering

FIFTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per week	Tutorial (T) Hours Per week	Practical (P) Hours Per week	Total Credits
Core Courses						
BTH- 501	Chemical Reaction Engineering –I	CC	3	1	-	4
BTH- 502	Chemical Engineering Thermodynamics-II	CC	3	1	-	4
BTH-503	Heat Transfer	CC	3	1	-	4
BTH- 504	Mass Transfer-I	CC	3	1	-	4
BTH- 521	Chemical Reaction Engineering Lab	CC			2	1
BTH- 523	Heat Transfer Lab	CC			2	1
BCS-510	Web Development	CC	2	-	-	2
BCS-530	Web Development Lab	CC	-	-	2	1
Domain Elective-III : Choose any one from the following courses						
BTH- 505	Process Instrumentation	DE	3	-	-	3
BTH- 506	Piping Design	DE	3	-	-	3
	Open Elective -IV	OE				3
Non-Teaching Credit Course (NTCC)						
BTH- 550	Practical Training Evaluation	NTCC	-	-	-	3
Value Added Courses						
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 504	Behavioral Science –V Group Dynamics & Team Building	VA	1	-	-	1
FLT 501	Foreign Language – V	VA	2	-	-	2
FLG 501	French					
FLS 501	German					
FLC 501	Spanish					
	TOTAL					34

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Program Name: B.Tech –Chemical Engineering

SIXTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per week	Tutorial (T) Hours Per week	Practical (P) Hours Per week	Total Credits
Core Courses						
BTH- 601	Process Dynamics and Control	CC	3	1	-	3
BTH- 602	Chemical Reaction Engineering-II	CC	3	1	-	3
BTH- 603	Mass Transfer-II	CC	3	1	-	4
BTH- 604	Equipment Design	CC	3	1	-	3
BTH- 605	Environmental Pollution and Control	CC	2		-	2
BTH- 621	Process Dynamics and Control Lab	CC			2	1
BTH- 623	Mass Transfer Lab	CC			2	1
BTH- 625	Environmental Pollution and Control Lab	CC			2	1
BCS-610	Programming with Python	CC	2	-	-	2
BCS-630	Programming with Python Lab	CC	-	-	2	1
Domain Elective-IV : Choose any one from the following courses						
BTH- 606	Energy Management	DE	3	--	--	3
BTH-607	Energy Resources &Utilization	DE	3	-	-	3
	Open Elective –V	OE				3
Value Added Courses						
BCS 601	Communication Skills – IV	VA	1	-	-	1
BSS 604	Behavioral Science – VI, Stress & Coping Strategies	VA	1	-	-	1
FLT 601 FLG 601 FLS 601 FLC 601	Foreign Language – VI French German Spanish Chinese	VA	2	-	-	2
	TOTAL	OE				31

Note: -Industrial Training completed during summer vacations and will be evaluated in seventh Semester.

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Program Name: B.Tech –Chemical Engineering

SEVENTH SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per week	Tutorial (T) Hours Per week	Practical (P) Hours Per week	Total Credits
Core Courses						
BTH- 701	Modeling & Simulation	CC	3	1		4
BTH - 702	Petroleum Refining	CC	2	1	-	3
BTH- 703	Transport Phenomena	CC	3	1	-	4
BCS-710	Advanced Programming with Python	CC	2	-	-	2
BCS-730	Advanced Programming with Python Lab	CC	-	-	2	1
	Open Elective –VI	OE	-	-	-	3
Non-Teaching credit course (NTCC)						
BTH-750	Industrial Training Evaluation	NTCC	-	-	-	3
BTH-760	Seminar	NTCC	-	-	-	3
Value Added Courses						
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Behavioral Science – VII, Individual Society & Nation	VA	1	-	-	1
FLT 701 FLG 701 FLS 701 FLC 701	Foreign Language – VII French German Spanish Chinese	VA	2	-	-	2
	TOTAL					27

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET)

Program Name: B.Tech –Chemical Engineering

EIGHT SEMESTER

Course Code	Course Title	Category	Lecture (L) Hours Per week	Tutorial (T) Hours Per week	Practical (P) Hours Per week	Total Credits
Core Courses						
BTH- 801	Plant Design & Economics	CC	3	1	-	4
BTH- 802	Safety and Hazard Analysis	CC	2	1		3
BTH- 803	New Separation Processes	CC	2	1		3
BTH- 860	Project	NTCC	-	-	-	12
	TOTAL					22

Total Credits (30+32+27+24+34+31+27+22) = 227

Course Outcomes

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY

B. Tech. Chemical Engineering

AM 301 APPLIED MATHEMATICS – III

At the successful completion of this course you (the student) should be able to:

1. Investigate the basic concept about partial differential equations.
2. Create an interest in finding the solution by Fourier Series and Fourier Transforms.
3. Apply basic concepts of Laplace Transformation.
4. Develop the physical problems using optimization techniques

BTH 302 FLUID AND PARTICLE MECHANICS

At the successful completion of this course you (the student) should be able to:

1. Identify and obtain the values of fluid properties and relationship between them and understand the principles of continuity, momentum, and energy as applied to fluid motions.
2. The student will understand stress-strain relationship in fluids, classify their behaviour and also establish force balance in static systems.
3. Students will be able to apply continuity equation, Bernoulli's principle and compute pressure drop in flow systems of different configurations.
4. Estimate the friction and measure the frictional losses in fluid flow.
5. Determine and analyze the performance aspects of fluid machinery specifically for centrifugal pump and reciprocating pump.

BTH 303 CHEMICAL PROCESS CALCULATIONS

At the successful completion of this course you (the student) should be able to:

1. Identify common processes in chemical and biochemical engineering.
2. Recognize the key process parameters in engineering design problems.
3. Carry out material and energy balance calculations separation processes by hand and using a computer package.
4. Analyse the behaviour of recycle processes, performing approximate material balances by hand, and setting up calculations for rigorous solution by computer.

BTH 304 CHEMICAL TECHNOLOGY-I

At the successful completion of this course you (the student) should be able to:

1. Ability to understand the process flow diagram and various process parameters.
2. Ability to clearly distinguish the functional role and importance of various processes and operations in the process plant.
3. Technical knowledge with respect to the selection of important parameters such as Temperature, Pressure and underlying physical principles of a process.
4. Ability to distinguish various process streams and their conditions of operation (Temperature, pressure and phases)
5. Basic knowledge for process troubleshooting and necessary safety precautions associated to a process/operation.

BTH 305 MATERIAL SCIENCE

At the end the course student will be able to:-

1. explain importance of materials in materials science and engineering field.
2. give information about atomic structure, atomic bonds, crystal structure, crystal geometry and crystal defects
3. explain solidification, crystal defects and diffusion in solids
4. give information about electrical properties of materials.
5. give information about metal, polymer, ceramic and composite materials and their properties.
6. give information about phase diagrams.

BTH 306 POLYMER TECHNOLOGY

At the successful completion of this course you (the student) should be able to:

1. Understand the techniques and their characteristics/limitations of synthesis of polymers.
2. Understand the structure-processing-property relationship of polymers.
3. Understand and apply the various processing and manufacturing techniques.
4. Understand the basic issues involved in polymer blends, composites & nano-composites
5. Professionally skilled for higher studies in research institutions and to work in polymer industries.

BTH 401 CHEMICAL TECHNOLOGY-II

At the successful completion of this course you (the student) should be able to:

1. Ability to understand the process flow diagram and various process parameters.
2. Ability to clearly distinguish the functional role and importance of various processes and operations in the process plant.
3. Technical knowledge with respect to the selection of important parameters such as Temperature, Pressure and underlying physical principles of a process.
4. Ability to distinguish various process streams and their conditions of operation (Temperature, pressure and phases)
5. Basic knowledge for process troubleshooting and necessary safety precautions associated to a process/operation.

BTH 402 CHEMICAL ENGINEERING THERMODYNAMICS-I

At the successful completion of this course you (the student) should be able to:

1. Investigate system, surrounding, closed and open system, extensive and intensive properties and other basic properties of thermodynamics.
2. Apply the first law of thermodynamics to the nozzles, diffusers, turbines, compressors, throttling valves, mixing chambers, heat exchangers, pipe and duct flow.
3. Formulate the first law of thermodynamics for closed systems and arrange the change in energy in the closed systems via heat and work transfer.
4. Judge the state of the pure substances such as compressed liquid, saturated liquid-vapor mixture and superheated vapor using property diagrams and tables.
5. Develop **and discuss the second law of thermodynamics**.
6. Analyse the Influence of temperature limit on performance of cycles.

BTH 403 MECHANICAL OPERATIONS

At the successful completion of this course you (the student) should be able to:

1. To impart the basic concepts of mechanical operations
2. To develop an understanding of size analysis, size reduction, and solid handling
3. Understand mechanical separation methods such as filtration, sedimentation, transportation of solids etc and associated equipment used for achieving these methods
4. The students are exposed to basic theory, calculations, and machinery involved in various solid handling operations

BTH 404 NUMERICAL ANALYSIS

At the successful completion of this course you (the student) should be able to:

1. use the solution to applied problem when ordinary analytical method fails
2. apply the techniques in design of engineering and scientific problems
3. find the solution of differential equation
4. fit different type of curves for given data.
5. Solve integration and differentiation numerically.

BTH 405 CORROSION SCIENCE AND ENGINEERING

At the end the course student will be able to:-

1. understand the various corrosion processes, protection methods and materials selection.
2. solve problems involving various types of corrosion.
3. acquire knowledge on the electrochemical principles that govern the corrosion processes.
4. select corrosion resistant materials for a given application.
5. acquires knowledge of the effect of various environments on corrosion.
6. Solve engineering problems using the scientific method combining expert knowledge from chemistry, environmental, and chemical engineering as well as material science and engineering.

BTH 501 CHEMICAL REACTION ENGINEERING – I

At the successful completion of this course you should be able to:

1. Develop an understanding of the basic concepts involved in using reaction rate equations and kinetic constants.
2. Perform derivations of rate equations for elementary reactions both in homogenous.
3. Perform derivations of design equations and calculations in batch, continuous CSTR and PFR reactors.
4. Identify the influence of temperature for irreversible and reversible reactions and the temperature influence on reactor performance and reactor stability.
5. Perform calculations of chemical reactors and network of chemical reactors.

BTH 502 CHEMICAL ENGINEERING THERMODYNAMICS-II

At the successful completion of this course you (the student) should be able to:

1. Use activity coefficient models to calculate excess properties of liquids.
2. Use modified Raoult's law to calculate VLE of non-ideal mixtures.
3. Calculate chemical equilibrium in non-ideal mixtures.
4. Understand processes involving power production, refrigeration, and liquifaction, and be able to calculate relevant system efficiencies for these processes.
5. Understand the characteristics of chemical reactions, operating parameters and their impact on the conversion and yield.
6. Ability to estimate thermodynamic properties of substances in gas or liquid state of ideal and real mixture & also to predict intermolecular potential and excess property behavior of multi-component systems.

BTH 503 HEAT TRANSFER

At the successful completion of this course you (the student) should be able to:

1. Understand the different forms of heat transfer.
2. Understand the relationship between the modes of heat transfer and various correlations.
3. Understand and apply the various numerical techniques to find out the heat transfer coefficient.
4. Understand the basic issues involved in design aspects of heat exchangers.
5. Professionally skilled for higher studies in research institutions and to work in process industries

BTH 504 MASS TRANSFER – I

At the successful completion of this course you (the student) should be able to:

1. To learn the role and function of mass transfer in process industry
2. To familiarize with unique risks, issues, and critical success factors associated with mass transfer operations
3. To emphasize on advanced mass transfer technologies used in chemical industry.

BTH 505 PROCESS INSTRUMENTATION (DOMAIN ELECTIVE-III)

At the successful completion of this course you (the student) should be able to:

1. Understand the different measuring instruments used in process industries.
2. Understand the basics of any instrument and its characteristics.
3. Understand and apply the various processing instruments in chemical process industries.
4. Understand the flow measuring devices, pressure and temperature measuring instruments.
5. Professionally skilled for higher studies in research institutions and to work in chemical process industries.

BTH 506 PIPING DESIGN (DOMAIN ELECTIVE-III)

At the end the course student will be able to: -

1. Understand the use of codes, regulations and standards are the basics for safety and practical engineering of piping systems in process plants.
2. Develop and interpret process flow diagrams and process and instrumentation drawings.
3. Select and specify pipework and fittings appropriate to the fluids they transport.
4. Apply industry standard numerical techniques to solve well defined problems in pipe sizing and thermal expansion.
5. Design piping layouts with due regard to space requirements for brackets, thermal expansion and equipment connection.

BCS 501 COMMUNICATION SKILLS - III

At the end the course student will be able to: -

- 1 Create right selection of words and ideas while also choosing the appropriate channel of formal communication
- 2 Demonstrate the ability to analyse a problem and devise a solution in a group.
- 3 Demonstrate proficiency in the use of written communication.
- 4 Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 504 BEHAVIOURAL SCIENCE – V (GROUP DYNAMICS AND TEAM BUILDING)

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them.

FLT 501 FRENCH - V

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses
4. Students will be able to communicate in oral in small sentences in Simple Future and past tenses. etc.
5. To understand the TP
6. To understand an experiment
7. To read the chemical equations
8. To identify the chemical formulas
9. To understand the instructions of a project
10. To express a desire
11. To understand a testimony
12. To understand and read an exercise of mathematics
13. Read and note the equations

FLG 501 GERMAN - V

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
5. After successful completion of this semester, students will be able to:
6. tell where they work and live
7. tell location of their offices and house
8. explain, how they reach their work place
9. ask and tell the location of thing or person in a house like behind, in front of etc.
10. describe the office things like printer, files etc

FLS 501 SPANISH - V

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
5. After successful completion of this semester, students will be able to:
6. tell where they work and live
7. tell location of their offices and house
8. explain, how they reach their work place
9. ask and tell the location of thing or person in a house like behind, in front of etc.
10. describe the office things like printer, files etc

FLC 501 CHINESE – V

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

BTH 601 PROCESS DYNAMICS AND CONTROL

At the successful completion of this course you (the student) should be able to:

1. Understand the importance of process dynamics (unsteady state operation).
2. Apply the Laplace and Inverse Laplace Transforms in order to obtain s-domain transfer functions and dynamic responses.
3. Understand the use and measurement of transfer functions (First order, Second Order, Higher Order) along with different forcing functions (step, Impulse, ramp, sinusoidal).
4. Distinguish P/I/D actions and be able to tune a PID controller.
5. Analyze the stability of system.
6. Develop block diagram description of processes and control loops.

BTH 602 CHEMICAL REACTION ENGINEERING – II

At the successful completion of this course you (the student) should be able to:

1. Describe the mass& heat transfer and reaction phenomena occurring in heterogeneous reactions and model.
2. Make informed choices of reactor types for heterogeneous reactions.
3. Write and simplify appropriately the overall rate and balance equations for multiphase reactions
4. Design reactors for heterogeneous reactions and optimise operating conditions
5. Use RTD methods to diagnose non-ideal flows in reactors and calculate conversions in non-ideal reactors

BTH 603 MASS TRANSFER --II

At the successful completion of this course you (the student) should be able to:

1. Understand the different mass transfer operations such as Distillation, Absorption, Adsorption etc.
2. Can explain the method for determination of number of plates in distillation column, absorption column.
3. Explain the applications of various mass transfer operations.
4. Professionally skilled for higher studies in research institutions and to work in chemical process industries.

BTH 604 EQUIPMENT DESIGN

At the successful completion of this course you (the student) should be able to:

1. Understand the various colour codes, symbol for valve, electricity line, chemical pipelines etc.
2. Understand the content of process flow diagrams (PFD and piping and instrument diagrams (P&ID)
3. Recognize the key process parameters in engineering design problems and safety aspects.
4. Understand heat exchanger sizing and develop a heat exchanger data sheet.
5. Carry out material and energy balance calculations separation processes by hand.
6. Understand distillation tray sizing and develop a distillation tray process data sheet.

BTH 605 ENVIRONMENTAL POLLUTION AND CONTROL

At the successful completion of this course you (the student) should be able to:

1. Understand the environment, ecology, and different problems created by human being.
2. Environmental degradation due to various industries.
3. Different techniques and acts to control water, air, land, noise pollution and various industrial pollution.

BCS 610 PROGRAMMING WITH PYTHON

After completion of this course, student will be able to

1. To learn basics of Python.
2. To develop console application in python.
3. To develop database application in python.
4. To develop basic machine learning application.

BTH 606 ENERGY MANAGEMENT (DOMAIN ELECTIVE-IV)

At the end the course student will be able to: -

1. know the energy demand and understand the production and consumption of primary energy resources.
2. understand the industrial structure and energy consumption expressions.
3. comprehend the importance of energy saving and to express the relationship between cost and energy consumption.
4. Develop systems for comprehensive energy audits.
5. Evaluate sustainable energy management practices
6. Evaluate cleaner energy sources, technologies and management practices.

BTH 607: ENERGY RESOURCES AND UTILIZATION (DOMAIN ELECTIVE-IV)

At the successful completion of this course you should be able to:

1. Knowledge of solid, liquid and gaseous fuels
2. To know the energy demand of world, nation and available resources to fulfil the demand
3. To know about the exploration of nonconventional energy resources and their effective tapping technologies
4. Effective utilization of available renewable energy resources
5. To acquire the knowledge of modern energy conversion technologies.

BCS 601 COMMUNICATION SKILLS - IV

- 1 Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
- 2 Demonstrate the ability to analyse a problem and devise a solution in a group.
- 3 Demonstrate proficiency in the use of written communication.

- 4 Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 604 : BEHAVIOURAL SCIENCE–VI (STRESS AND COPING STRATEGIES)

At the successful completion of this course you (the student) would be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyze symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FLT 601 FRENCH - VI

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
5. To understand the essentials of an interview
6. To present one research
7. To present one university and professional course
8. To speak about the professional projects
9. To understand a remarkable topic
10. To understand and ask questions
11. To describe a person
12. The content and the method of the report
13. To make a plan of the report
14. To write an introduction
15. To understand a short technical message
16. To reply to a survey

FLG 601 GERMAN - VI

After successful completion of this semester, students will be able to:

1. express their likes and dislikes (buying groceries)
2. ask price and quantity
3. express their likes and dislikes in terms of cloths
4. buy cloths in the shopping mall

FLS 601 SPANISH – VI

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses .
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
5. To express future plans and intentions
6. To talk about tourist destination in Spain and India
7. Reading texts about Spanish historical monuments
8. To talk about dance and music.
9. Reading text about Spanish Cities
10. Writing email to your friend/family members

FLC 601 CHINESE – VI

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

Course Code: AND006 ANANDAM-VI

The student should develop:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BTH 701 MODELLING & SIMULATION

At the successful completion of this course you should be able to:

1. Grasp modelling concepts with emphasis on performance analysis.
2. To understand the techniques of modelling in the context of hierarchy of knowledge about a system and develop the capability to apply the same to study systems through available software.
3. To learn different types of simulation techniques.
4. To simulate the models for the purpose of optimum control by using software.

BTH 702 PETROLEUM REFINING

At the successful completion of this course you (the student) should be able to:

1. To understand the various feed stocks of refinery and petroleum products.
2. Understand the market drivers and history of the refining industry.
3. To get acquainted with basic separation and conversion processes used in refining of crude oil.
4. To get familiarized with challenges involved in refining from viewpoint of environment.
5. Understand the various feed stocks of petro-chemical and its products.

BTH 703 TRANSPORT PHENOMENA

At the successful completion of this course you (the student) should be able to:

1. Understand the different transport phenomena such as momentum, heat and mass transport.
2. Understand the momentum transport phenomena.
3. Understand the energy transport phenomena.
4. Understand the mass transport phenomena.

BCS 710 ADVANCED PROGRAMMING WITH PYTHON

At the end of this Unit the student will be able to

1. Interpret the basic principles of Python programming language.
2. Articulate the Object-Oriented Programming concepts such as encapsulation, inheritance and polymorphism as used in Python.
3. Identify the commonly used operations involving file systems and regular expressions.
4. Implement Machine Learning algorithms.

BCS 701 COMMUNICATION SKILLS - V

- 1 Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
- 2 Create right selection of words and ideas while choosing the appropriate channel of formal communication
- 3 Apply acquired knowledge with the appropriate selection of channel of formal communication.
- 4 Develop and empower self with the ease of using appropriate medium of communication.

BSS 704 BEHAVIOURAL SCIENCE – VII (INDIVIDUAL, SOCIETY AND NATION)

At the successful completion of this course you (the student) would be able to:

1. Understand the basics of Excellence.
2. Understand the importance of personal and professional excellence.
3. Learn how to manage personal effectiveness.
4. Learn to build personal success strategies

FLT 701 FRENCH - VII

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.
4. To express the obligation
5. To suggest and give the advices
6. To speak about the recycling
7. To understand an interview and a project of research
8. To make a survey
9. To prepare for the oral communication
10. To prepare the posters
11. To understand and give the suggestions

FLG 701 GERMAN - VII

After successful completion of this semester, students will be able to:

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.
4. describe their holidays or vacations (perfect tense)
5. talk about past events – What did you do yesterday? etc.
6. understand weather reports
7. express their opinion about weather.

FLS 701 SPANISH - VII

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.
4. To be able to give order, command and make request. Formal and Informal
5. Use of imperative in different types of situation: In a bar/ Classroom/ Market etc.
6. To express prohibitions and permissions
7. To be able to talk about actions in past indefinite tense
8. Reading texts about Sports in Spain
9. To be able to talk about past events – What did you do yesterday? Etc

FLC 701 CHINESE – VII

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.

BTH 801 PLANT DESIGN AND ECONOMICS

At the successful completion of this course you should be able to:

1. Understand concepts of process design and project management.
2. Synthesize feasible and optimum flow-sheet.

3. Estimate the capital investment, total product costs, and profitability.
4. Optimize the design of equipment's based on economics and process considerations.
5. Recognize the need for life-long learning to keep with the state-of-the-art for design, modifications and improvements in chemical processes.

BTH 802 SAFETY AND HAZARDS ANALYSIS

At the successful completion of this course you should be able to:

1. Understand the various color codes, symbol for chemicals, valve, electricity line, chemical pipelines etc.
2. Define the hazard and risk.
3. Understand the various types of safety equipment and techniques.
4. Apply the 5-step model to risk assessment using case studies
5. State the steps involve in developing safe work procedure
6. Understand Industrial hygiene and safety aspects related to toxicity noise, radiation.

BTH 803 NEW SEPARATION PROCESS

On completion of this course you (the student) will be able to:

1. Perform graphical or algebraic design calculations for different separation processes.
2. Select feasible solvent/stripping agent rates and reflux ratios.
3. Describe the principles by which economic reflux ratios are selected.
4. Determine the properties of humid air using a psychrometric chart.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING &
TECHNOLOGY(ASET)**

B. Tech. (Electrical & Electronics Engineering)

Program Code: BEE

12246

Duration – 4 Years Full Time

PROGRAMME STRUCTURE

Credit Summary

Semester	Core course (CC)	Domain Electives (DE)	Values Added (VAC)	Open Electives	NTCC	Total
I	24	-	4	-	2	30
II	19	-	8	3	2	32
III	21	3	4	3	---	31
IV	18	3	4	3	---	28
V	15	3	4	3	3	28
VI	17	3	4	3	--	27
VII	17	-	4	3	3	27
VIII	6	3	--	--	12	21
Total	137	15	32	18	22	224

Program Specific Outcomes (PSOs)

- PSO 1 Ability to apply the knowledge of mathematics, science and engineering principles in Electrical and Electronics Engineering systems.
- PSO 2 Ability to provide solutions for EEE problems by designing and conducting experiments, interpreting and analyzing data, and reporting the results.
- PSO 3 Develop a comprehensive understanding of the entire range of electronic devices, analog and digital circuits with added state-of art knowledge on advanced electronic systems.
- PSO 4 Ability to design different power electronic circuits and drives for industrial applications.
- PSO 5 Develop an in-depth knowledge in transmission and distribution systems, power system analysis and protection systems to pursue a career in the power sector.
- PSO 6 Ability of a good knowledge in microprocessors/microcontrollers, data structures, computer programming and simulation software.
- PSO 7 Ability to develop mathematical modelling, analysis and design of control systems and associated instrumentation for EEE.
- PSO 8 Ability to design and build renewable energy systems for developing clean energy and sustainable technologies.

PROGRAMME STRUCTURE

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY(ASET)

B. Tech. (Electrical & Electronics Engineering)

SEMESTER I

Code	Course	Category	L	T	P	Credits
AM 101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics - I – Fields & Waves	CC	2	1		3
AC 103	Applied Chemistry	CC	2	1		3
BME 104	Element of Mechanical Engineering	CC	2	1		3
BCS 105	Introduction to Computers & Programming in C	CC	2	1		3
BEE 106	Basic Electrical Engineering	CC	2	1		3
Practical Courses						
AP 122	Applied Physics-I – Fields & Waves Lab	CC	-	-	2	1
AC 123	Applied Chemistry lab	CC	-	-	2	1
BME 124	Element of Mechanical Engineering lab	CC	-	-	2	1
BCS 125	Programming in C lab	CC	-	-	2	1
BEE 126	Basic Electrical Engineering lab	CC	-	-	2	1
Value Added						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I Understanding Self For Effectiveness-I		1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language – I French German Spanish Chinese		2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
Total						30

SEMESTER II

Code	Course	Category	L	T	P	Credits
Core Courses						
AM 201	Applied Mathematics – II	CC	3	1	-	4
AP 202	Applied Physics - II – Modern Physics	CC	2	1		3
BCS 203	Object Oriented Programming using C++	CC	2	1		3
BME 204	Engineering Mechanics	CC	2	1		3
BME 205	Engineering Graphics	CC	1			1
BME 206	Domain Workshop	CC	1	-	-	1
Practical Courses						
AP 222	Applied Physics - II – Modern Physics lab	CC	-	-	2	1
BCS 223	Object Oriented Programming using C++lab	CC	-	-	2	1
BME 224	Engineering Mechanics lab	CC	-	-	2	1
BME 225	Engineering Graphics lab	CC	-	-	2	1
Open Elective						
	OPEN ELECTIVE – I	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioral Science-II (Problem Solving & Creation thinking)	VA	1	-	-	1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
EVS 001	Environmental Studies	VA	4	-	-	4
Non-Teaching Credit Course (NTCC)						
AND002	Anandan-II	NTCC	-	-	2	2
Total						32

SEMESTER III

Code	Course	Category	L	T	P	Credit Units
Core Courses						
AM 301	Applied Mathematics – III	CC	3	-	-	3
BEC 302	Analog Electronics-I	CC	3	1	-	4
BEC 303	Circuits & Systems	CC	3	1	-	4
BEE 304	Electrical Machine-I	CC	2	1	-	3
BEC 305	Java Programming	CC	3	-	-	3
Practical Courses						
BEC 322	Analog Electronics-I Lab	CC	-	-	2	1
BEC 323	Circuits & Systems Lab	CC	-	-	2	1
BEE 324	Electrical Machine Lab-I	CC	-	-	2	1
BEC 325	Java Programming Lab	CC	-	-	2	1
Domain Electives: Student must select 1 course from following DE electives						
BEC 304	Signal & Systems	DE	2	1	-	3
BEC 307	Measurements & Instrumentation					
Open Elective 3		OE	-	-	-	3
Value added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science-III (Interpersonal Communication)	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language – III French German Spanish Chinese	VA	2	-	-	2
Total						31

SEMESTER IV

Code	Course	Category	L	T	P	Credit Units
Core Courses						
BEC401	Digital Circuits & Systems-I	CC	3	-	-	3
BEC 402	Analog Electronics-II	CC	3	-		3
BEE 403	Electric Machine – II	CC	2	1	-	3
BEE 404	Control System	CC	2	1	-	3
BEE 405	Power Plant Engineering	CC	1	1	-	2
Practical Courses						
BEE 421	Digital Circuits & Systems-I Lab	CC	-	-	2	1
BEC 422	Analog Electronics-II Lab	CC	-	-	2	1
BEE 423	Electric Machine Lab – II	CC	-	-	2	1
BEE 424	Control System Lab	CC	-	-	2	1
Domain Electives: Student must select 1 course from following DE electives						
BEC 406	Electromagnetic Field Theory	DE	2	-	-	3
BEE 406	Renewable Energy Technology					
Open Elective 3		OE	-	-	-	3
Value added Courses						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 404	Behavioral Science-IV (Relationship Management)	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language – IV French German Spanish Chinese	VA	2	-	-	2
Total						28

SEMESTER V

Code	Course	Category	L	T	P	Credit Units
Core Courses						
BE C 501	Microprocessor and Microcontroller Systems	CC	3	-	-	3
BE C 502	Digital Circuits & Systems-II	CC	2	1	-	3
BE E 503	Modern & Digital Control Engineering	CC	2	1	-	3
BC S 510	Web Development	CC	2	-	-	2
Practical Courses						
BE E 521	Microprocessor and Micro Controller Lab	CC	-	-	2	1
BE C 522	Digital Circuits & Systems-II Lab	CC			2	1
BEE 528	MATLAB theory and practices	CC	-	-	2	1
BC S 530	Web Development Lab	CC	-	-	2	1
BE E 560	Practical Training (Evaluation)	NTCC	-	-	-	3
Domain Electives: Student must select 1 course from following DE electives						
BE E 505	Computer System Architecture	DE	2	1	-	3
BE E 506	Substation Engineering					
BE E 507	Process Control Engineering					
Open Elective 4		OE	-	-	-	3
Value added Courses						
BC S 501	Communication Skills – III	VA	1	-	-	1
BS S 504	Behavioral Science-V (Understanding self for effectiveness)	VA	1	-	-	1
	Foreign Language – V					

FL T 501	French					
FL G 501	German	VA	2	-	-	2
FL S 501	Spanish					
FL C 501	Chinese					
Total						28

SEMESTER VI

Code	Course	Category	L	T	P	Credit Units
Core Courses						
BEE 601	Power Electronics	CC	3	-	-	3
BEE 602	Power System Analysis	CC	2	1	-	3
BEE 603	Transmission and Distribution System	CC	2	1	-	3
BEE 604	Utilization of Electric Power	CC	3	-	-	3
BCS 610	Programming with Python	CC	2	-	-	2
Practical Courses						
BEE 621	Power Electronics Lab	CC	-	-	2	1
BEE 622	Power System Lab	CC	-	-	2	1
BCS 630	Programming with Python Lab	CC	-	-	2	1
Domain Electives: Student must select 1 course from following DE electives						
BEC 606	Data Structures and IT	DE	3	-	-	3
BEE 606	Switch Mode Power Supplies					
BEE 607	Electrical Machine Design					
Open elective 5		OE	-	-	-	3
Value Added Courses						
BCS 601	Communication Skills – IV	VA	1	-	-	1
BSS 604	Understanding self for effectiveness - VI	VA	1	-	-	1
	Foreign Language – VI	VA	2	-	-	2
FLT 601	French					
FLG 601	German					
FLS 601	Spanish					
FLC 601	Chinese					
Total						27

SEMESTER VII

Course Code	Course	Category	L	T	P	Credit Units
Core Courses						
BEE 701	Power System Engineering	CC	2	1	-	3
BEE 703	Power System Protection	CC	3	-	-	3
BEE 704	Substation Engineering	CC	2	1	-	3
BCS 710	Advanced Programming with Python	CC	2	-	-	2
Practical Courses						
BEE 721	Power System Engg Lab	CC	-	-	2	1
BEE 725	Electrical Simulation Lab	CC	-	-	2	1
BCS 730	Advanced Programming with Python Lab	CC	-	-	2	1
BEE 750	Industrial Training (Evaluation)	NTCC				3
BEE 760	Seminar	CC	-	-	-	3
Open Elective 6		OE	-	-	-	3
Value added Courses						
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Behavioral Science – VII, Individual Society & Nation	VA	1	-	-	1
	Foreign Language – VII	V A	2	-	-	2
FLT701	French					
FLG 701	German					
FLS 701	Spanish					
FLC 701	Chinese					
Total						27

SEMESTER VIII

Course Code	Course	Category	L	T	P	Credit Units
Core Courses						
BEE 801	Electrical Drives & Control	CC	2	1	-	3
BEE 802	Flexible AC Transmission Systems	CC	2	1	-	3
BEE 860	Major Project	CC	-	-	-	12
Domain Electives: Student must select 1 course from following DE electives						
BEE 803	Optimization Techniques and Algorithms	DE	2	1	-	3
BEE 804	Smart Grid Technology					
Total						21
Note: CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work						
Total Credits						224

Course Outcomes

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY

B. Tech. EEE

BEE 105- Basic electrical engineering

Upon successful completion of the course, the students will be able to:

1. Develop a practical approach for analysis of resistive circuits and solution of resistive circuits with independent sources.
2. Able to apply two terminal element relationships for inductors and capacitors in an electrical network
3. Capable of analysis of single phase AC circuits, the representation of alternating quantities and determining the power in these circuits.
4. To acquire the knowledge about the constructional concepts & working principles for the applications of DC machines, AC machines & measuring instruments
5. Able to identify, formulate, and solve the electrical engineering problems.

BEC 302- ANALOG ELECTRONICS – I

Upon successful completion of the course, the students will be able to:

1. Understand the current voltage characteristics of semiconductor devices.
2. Analyze DC circuits and relate AC models of semiconductor devices with their physical operations
3. Design and analyze of electronic circuits.
4. Evaluate frequency response to understand behaviour of Electronics circuits.
5. Students will develop some minor projects based on the concepts of Analog Electronics.

BEC 303- CIRCUITS & SYSTEMS

Upon successful completion of the course, the students will be able to:

1. Do the time-domain and S- domain analysis of circuits
2. Obtain transfer functions of circuits and analysis of stability using poles of the transfer function
3. Analyze the frequency response of circuits and to obtain the correlation between time domain and frequency domain response specifications
4. Obtain steady state solutions for nonsinusoidal inputs using fourier series and to analyze the effect of harmonics in circuits
5. Understand the features of two port networks and to obtain their equivalent circuits

BEE 304- Electric Machine – I

Upon successful completion of the course, the students will be able to:

1. Demonstrate mastery over knowledge in various functional areas of engineering.
2. Analyze and apply various engineering concepts and theories to facilitate a problem solving approach.
3. Demonstrate research and technical skills to analyze numerical challenges

BEC 305- JAVA PROGRAMMING

Upon successful completion of the course, the students will be able to:

1. Define object oriented terminology and JAVA programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application
5. Differentiate between C++ and java programming language
6. Create projects using Java programming

BEC 304- Signals And Systems

Upon successful completion of the course, the students will be able to:

1. To define the energy and power of a signal.
2. To classify different type of signals.
3. To define linear and time invariant systems.
4. To Introduce Fourier series and Fourier transform.

BEC 307- MEASUREMENTS & INSTRUMENTATION

Upon successful completion of the course, the students will be able to:

1. Know the importance of measurement systems in industries.
2. Select and calibrate the appropriate sensors, calculate sensibility, errors, and repeatability
3. Design and use of amplifiers with measurement systems in order to facilitate the reading of output signal Noise filtering to decrease reading errors
4. Convert analog signal into digital signal in order to be saved into a computer

BEC 401- DIGITAL CIRCUITS AND SYSTEMS – I

Upon successful completion of the course, the students will be able to:

1. Understand the Fundamentals of Computers and Digital Electronics.
2. Analyse Various Logic Gates and implementation of Boolean expressions.
3. Design and analyse of Digital Electronic circuits
4. Evaluate various parameters to understand behaviour of Digital Electronics circuits.
5. Students will develop some minor projects based on the concepts of Digital Electronics.

BEC 402- ANALOG ELECTRONICS – II

Upon successful completion of the course, the students will be able to:

1. Familiar with Operational Amplifier in terms of characteristics, operation, applications and limitations.

2. Know the foundation of advance courses on VLSI design and analog CMOS IC Design
3. Determine the importance, necessity & use of operational Amplifier in electronic devices.

BEE 403- ELECTRIC MACHINES – II

Upon successful completion of the course, the students will be able to:

1. Demonstrate mastery over knowledge in various functional areas of engineering.
2. Analyze and apply various engineering concepts and theories to facilitate a problem solving approach.
3. Demonstrate research and technical skills to analyze numerical challenges.

BEE 404- CONTROL SYSTEM

Upon successful completion of the course, the students will be able to:

1. Study the control system component behavior by transfer function methods.
2. Ability to design a suitable compensator Lead, Lag and Lead – lag compensator using frequency domain method or time domain method.
3. Understand mathematical models of linear discrete-time control systems using transfer functions and state-space models.
4. Analyze and determine whether performance of linear discrete-time control systems meet specified design criteria.

BEE 405- POWER PLANT ENGINEERING

Upon successful completion of the course, the students will be able to:

1. Describe and analyse different types of sources and mathematical expressions related to thermodynamics and various terms and factors involved with power plant operation.
2. Analyse the working and layout of steam power plants and the different systems comprising the plant and discuss about its economic and safety impacts
3. Combine concepts of previously learnt courses to define the working principle of diesel power plant, its layout, safety principles and compare it with plants of other types.
4. Describe the working principle and basic components of the nuclear power plant and the economic and safety principles involved with it.
5. Discuss the working principle and basic components of the hydroelectric plants and the economic principles and safety precautions involved with it
6. Discuss and analyse the mathematical and working principles of different electrical equipment's involved in the generation of power

BEC406- ELECTROMAGNETIC FIELD THEORY

Upon successful completion of the course, the students will be able to

1. Investigate the various types of coordinate systems, along with electromagnetic field concepts.
2. Create awareness of all existing governing equations and theorems for mathematical description (such as Gauss', Faraday', Ampere's laws and Poisson, Laplacian, Maxwell equations).

3. Apply the distributed circuit concepts needed at EM, specifically to match impedances and design HF components
4. Develop and recognise fundamental properties of waveguide modes.

BEC 501- MICROPROCESSOR AND MICROCONTROLLER SYSTEMS Upon successful completion of the course, the students will be able to:

1. They can Gain a detailed understanding of any system for a specific application.
2. Student are able to design a any hardware based on application.
3. To familiarize the Architecture of 8085 and 8086microprocessor.
4. To classify the types and characteristics of buses in microprocessor.
5. To analyze the features, addressing mode and programming of Intel 8085 and 8086 microprocessor.

BEC 502- DIGITAL CIRCUITS AND SYSTEMS – II Upon successful completion of the course, the students will be able to:

1. Identify and explain fundamental concepts of advance digital logic design including combinational and sequential circuits.
2. Analyse the digital circuit and can describe that circuit by using hardware description language
3. Analyse small-scale combinational and sequential digital circuits and can implement on FPGA after writing the VHDL code of particular circuit
4. Implement finite state machine in VHDL language and other arithmetic operation can be done on FPGA using XILINX tool.

BEE 503- MODERN AND DIGITAL CONTROL ENGINEERING Upon successful completion of the course, the students will be able to:

1. Study the control system component behavior by transfer function methods.
2. Ability to design a suitable compensator Lead, Lag and Lead – lag compensator using frequency domain method or time domain method.
3. Understand mathematical models of linear discrete-time control systems using transfer functions and state-space models.
4. Analyze and determine whether performance of linear discrete-time control systems meet specified design criteria
5. Ability to design a suitable PID Controller to improve the performance the controlled systems PID controllers

BCS 510- WEB DEVELOPMENT

Upon successful completion of the course, the students will be able to:

1. Structure and implement HTML/CSS.
2. Apply intermediate and advanced web development practices.
3. Implement basic JavaScript.
4. Create visualizations in accordance with UI/UX theories.
5. Develop a fully functioning website and deploy on a web server.
6. Find and use code packages based on their documentation to produce working results in a project

BEE 505- COMPUTER SYSTEM ARCHITECTURE

Upon successful completion of the course, the students will be able to:

1. Investigate the Operate logical components and relate them with the various components of computer.
2. Create the general organization of the central processing unit.
3. Apply various computer memories and system communication mechanisms.
4. Develop various parallel processing architectures.

BEE 507- PROCESS CONTROL ENGINEERING

Upon successful completion of the course, the students will be able to:

1. Understand the process control and dynamics
2. Analyze the different types of control techniques
3. Verify the process calculation, static and dynamics based and instrumentation based techniques
4. Apply the P, PI and PID system to real life.

BEE 601- POWER ELECTRONICS

Upon successful completion of the course, the students will be able to:

1. Accurately analyse and select the power semiconductor switching devices for a given power converter.
2. Understand the constructional details and principle of operation of triggering devices to control the power devices.
3. Design an appropriate triggering and protection scheme for power semiconductor devices.
4. Understand the working of various types of converters, choppers and inverter circuits.

BEE 602- POWER SYSTEM ANALYSIS

Upon successful completion of the course, the students will be able to:

1. Ability to determine the solution for economic dispatch and unit commitment problems of a power system
2. Understand the concept of stability, able to identify and calculate the steady state stability limits of power system network using various methods.
3. Able to identify the transient stability limits of power system network and apply various methods to enhance stability limits.
4. Able to formulate and analyse the load flow problems for existing power network.
5. Apply and analyse the load flow solutions for existing and new modified power system networks.
6. Able to identify, formulate, and solve the power system engineering problems

BEE603- TRANSMISSION AND DISTRIBUTION SYSTEM

Upon successful completion of the course, the students will be able to:

1. To Conceptualize Students the Basics of existing power Transmission & Distribution System networks in Utilities in Public and Private sectors along with their Rating methods. Future integrated approach of Reduction of line losses and reduction of Transformer Failures projects will be understood

2. To apply the systematic approach to the policies and other DPR related methodologies for arranging funds from government schemes will be learned by the students.
3. To analyze delays caused in the progress of implementing of projects for improvements will be learned and their remedial measures will be understood by the student
4. To integrate All regulatory matters/Acts/policies/guidelines/rules will be understood by the students in details particularly Electricity Act 2003 and its Amendments..
5. To apply Transmission and Distribution Sub Station upgradation/ modernization work in practical by the students and time over runs/cost over runs with quality standards will be learned

BEE 604- UTILIZATION OF ELECTRIC POWER

1. Upon successful completion of the course, the students will be able to:
2. Recognize different methods of electric heating and welding, design of heating elements for resistance furnaces and analyze the performance of arc furnaces
3. Explain different types of chemical processes and design electrical circuits for refrigeration and air conditioning applications
4. Define basic terms used in illumination engineering, explain different sources of light and design simple indoor illumination schemes
5. Distinguish between different types of traction systems and explain track electrification supply system constituents and equipment used in traction substation
6. Analyze different types of speed time curves and define important terms used in traction mechanics like average speed, schedule speed, tractive effort, specific energy consumption and coefficient of adhesion
7. Explain characteristics of traction motors, control of traction motors, electrical braking and railway signalling

BCS 610- PROGRAMMING WITH PYTHON

Upon successful completion of the course, the students will be able to:

1. To acquire programming skills in core Python
2. To acquire Object Oriented Skills in Python
3. To develop the skill of designing Graphical user Interfaces in Python
4. To develop the ability to write database applications in Python

BEC 606- DATA STRUCTURES AND IT

Upon successful completion of the course, the students will be able to:

1. Understanding of fundamental Data Structures including linked-lists, trees, binary search trees, AVL trees, stacks, queues, priority queues, and hash-tables and skiplists.
2. Understanding of fundamental abstract data types which can include: Maps, Sets and Vectors.

3. Ability to program data structures and use them in implementations of abstract data types.
4. Ability to devise novel solutions to small scale programming challenges involving data structures and recursion.
5. Understanding of basic algorithmic complexity.

BEE 606- SWITCHED MODE POWER SUPPLIES

Upon successful completion of the course, the students will be able to:

1. Investigate the various types of SMPS and the common requirements for their designs
2. Create awareness of all existing types of SMPS related AC power line surge protection.
3. Apply theoretical knowledge for practical domains such as Electro Magnetic Interference [EMI] and Radio Frequency Interference [RFI].
4. Develop various kinds of fuse selection for SMPS

BEE 701- POWER SYSTEM ENGINEERING

Upon successful completion of the course, the students will be able to:

1. Ability to determine the solution for economic dispatch and unit commitment problems of a power system.
2. Understand the concept of stability, able to identify and calculate the steady state stability limits of power system network using various methods.
3. Able to identify the transient stability limits of power system network and apply various methods to enhance stability limits
4. Able to formulate and analyse the load flow problems for existing power network.
5. Apply and analyse the load flow solutions for existing and new modified power system networks.
6. Able to identify, formulate, and solve the power system engineering problems.

BEE 702- High voltage engineering

Upon successful completion of the course, the students will be able to:

1. Understand the current voltage characteristics of various types of materials.
2. To learn the basic concepts of high voltage applications and the apparatus used for this purpose.
3. To make the students aware about how to implement several high voltage generation methods and to take care of high voltage operations.
4. This course is to explain highlights and key concepts of each high voltage testing method.

BEE 703- Power system protection

Upon successful completion of the course, the students will be able to:

1. Develop a practical approach for analysis and design of neutral earthing for electrical power equipment.

2. Able to describe the operating principles of various relays and their construction for fault protection of an electrical supply network.
3. Understand the constructional details, principle of operation and application of static relays for electrical supply network.
4. Design, analyse and evaluate the relaying scheme for power equipment protection such as generator, transformer and induction motor.
5. Able to identify, formulate, and solve the power system fault and protection problem by selecting relay for a particular application.

BCS 710- ADVANCED PROGRAMMING WITH PYTHON

Upon successful completion of the course, the students will be able to:

1. To acquire Object Oriented Skills in Python
2. To develop the skill of designing Graphical user Interfaces in Python
3. To develop the ability to write database applications in Python

BEE 802- FLEXIBLE AC TRANSMISSION SYSTEMS

Upon successful completion of the course, the students will be able to:

1. Develop a practical approach for analysis of basics of power transmission networks and demand of flexible controlling of AC transmission system.
2. Able to apply the understanding towards analysis of uncompensated lines of an electrical supply network.
3. Capable of analysis of need of reactive power compensation, methods employed for it and placement of these devices in the transmission lines.
4. To acquire the knowledge about the concepts of applications of static synchronous compensators & unified power flow controllers along with their locations in the transmission system.
5. Able to identify, formulate, and solve the problems related to controlling of power systems equipments.

BEE 860- MAJOR PROJECT

Upon successful completion of the course, the students will be able to:

1. Demonstrate a sound technical knowledge of their selected project topic.
2. Undertake problem identification, formulation and solution.
3. Design engineering solutions to complex problems utilizing a systems approach
4. Conduct an engineering project.
5. Communicate with engineers and the community at large in written and oral forms
6. Demonstrate the knowledge, skills and attitudes of a professional engineer.

BEE 804- SMART GRID TECHNOLOGY

Upon successful completion of the course, the students will be able to:

1. Understand the concept of smart grid, their comparison over conventional grid & international policies
2. Assess the role of automation in Transmission/Distribution substations.
3. Understand operation and importance of High-Efficiency Distribution Transformers, Phase Shifting Transformers and Plug in Hybrid Electric Vehicles (PHEV).



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING & TECHNOLOGY
(ASET)**

**Bachelor of Technology
(Data Science & Engineering)**

Programme Code: BDS

121322

Duration – 4 Years Full Time

Programme Structure

Credits Summary

Semester	Core Courses (CC)	Domain Electives (DE)	Value Added Courses (VA)	Non-Teaching Credit Courses (NTCC)	Open Electives (OE)	Anandam	Total
1	22	-	04	-	-	02	28
2	24	-	04	01	03	02	34
3	18	04	04	-	03	02	31
4	14	04	04	-	03	02	27
5	12	04	04	05	03	02	30
6	14	04	04	-	03	02	27
7	07	04	04	04	03	02	24
8	11	-	-	15	-	-	26
Total	122	20	28	25	18	14	227

Total Credit=122+20+28+25+18+14=227

CC= Core Course, DE=Domain Elective, OE= Open Elective, VA=Value Added Course, NTCC=Non-Teaching Credit Courses

Program Specific Outcomes (PSOs)

1. Students will be able to demonstrate role of Computer Science in the following core knowledge areas
 - Algorithms, Data Structures and Databases
 - Programming Languages and Compilers
 - Software Engineering and Development
 - Computer Hardware and Architecture
 - Data Communication and Computer Networks
2. Students will be able to analyze role of computer science and information technology, with mainstay in mathematics, basic sciences and engineering fundamentals.
3. Students will apply problem solving strategies to a range of modern computing paradigms related to computer programming, data intensive technologies, distributed and cloud computing, computational techniques.
4. Students will gain experiential learning on developing techno-commercially feasible and socially acceptable computing solutions to real world engineering problems through internship and projects, in industry.
5. Students will recognize the role of technological advances impacting society and the social, legal, ethical, cultural and communicative implications of computer technology and their usage.

Program Structure

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) Bachelor of Technology - (Data Science & Engineering)

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics - I – Fields & Waves	CC	2	1	-	3
BME 103	Engineering Mechanics	CC	2	1	-	3
BDS 104	Introduction to Computers & Programming in C/C++	CC	2	1	-	3
BEE 105	Basic Electrical Engineering	CC	2	1	-	3
BME 106	Engineering Graphics	CC	1	-	-	1
Practical Courses						
AP 122	Applied Physics - I lab	CC	-	-	2	1
BME 123	Engineering Mechanics Lab	CC	-	-	2	1
BDS 124	Programming in C Lab	CC	-	-	2	1
BEE 125	Basic Electrical Engineering Lab	CC	-	-	2	1
BME 126	Engineering Graphics Lab	CC	-	-	2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I(Understanding Self for Effectiveness)	VA	1	-	-	1
Foreign Language – I						
FLT 101	French	VA	2	-	-	2
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
Total						28

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM 201	Applied Mathematics – II	CC	3	1	-	4
AP 202	Applied Physics - II – Modern Physics	CC	2	1	-	3
AC 203	Applied Chemistry	CC	2	1	-	3
BDS 204	Programming in Python Language	CC	2	1	-	3
BME 205	Elements of Mechanical Engineering	CC	2	1	-	3
BCS 206	Domain Workshop/Seminar	NTCC	-	-	-	1
EVS 001	Environmental Studies	CC	4	-	-	4
Practical Courses						
AP 222	Applied Physics – II Lab	CC	-	-	2	1
AC 223	Applied Chemistry Lab	CC	-	-	2	1
BDS 224	Python Programming Laboratory	CC	-	-	2	1
BME 225	Elements of Mechanical Engineering Lab	CC	-	-	2	1
Open Elective						
	OPEN ELECTIVE- 1	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioural Science – II (Problem solving and Creative Thinking)	VA	1	-	-	1
Foreign Language – II		VA	2	-	-	2
FLT 201	French					
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
Non-Teaching Credit Course (NTCC)						
AND002	Anandam-II	NTCC	-	-	-	2
Total						34

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
AM 301	Statistics	CC	2	1	-	3
BDS 302	Data Structures and Algorithms	CC	2	1	-	3
BDS 303	Fundamentals of Operating Systems	CC	2	1	-	3
BDS 304	Database Management and SQL	CC	2	1	-	3
BDS 307	Introduction to Artificial Intelligence	CC	2	1	-	3
Practical Courses						
BDS 322	Data structures and Algorithms Lab	CC	-	-	2	1
BDS 323	Operating Systems with Unix lab	CC	-	-	2	1
BDS 324	Database Management Systems lab	CC	-	-	2	1
Domain Elective-I : Choose any ONE from the following courses along with corresponding labs						
BDS 305	Digital Electronics	DE	2	1	-	3
BDS 306	Website Design	DE				
BDS 325	Digital Electronics lab	DE	-	-	2	1
BDS 326	Website Design Lab	DE				
Open Elective Course						
	OPEN ELECTIVE- 2	OE	3	-	-	3
Value Added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science – III (Interpersonal Communication)	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language – III French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND003	Anandam-III	NTCC	-	-	-	2
Total						31

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BDS 402	Probability and Random Variables	CC	3		-	3
BDS 403	Networking Methodologies	CC	2	1	-	3
BDS 404	Design and Analysis of Algorithms	CC	2	1	-	3
BDS 405	Knowledge Engineering	CC	2	1	-	3
Practical Courses						
BDS 424	Design and Analysis of Algorithms Lab	CC	-	-	2	1
BDS 425	Data Communication & Computer Networks Lab	CC	-	-	2	1
Domain Elective-II : Choose any one from the following courses						
BDS 406	Data warehousing and data mining	DE	2	1	-	3
BDS 407	Computer System Architecture and Organization	DE	4	-	-	4
BDS 426	Data mining Tools Lab	DE	-	-	2	1
Open Elective Courses						
OPEN ELECTIVE- 3		OE	3	-	-	3
Value Added Courses						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 404	Behavioural Science – IV (Relationship Management)	VA	1	-	-	1
Foreign Language – IV						
FLT 401	French	VA	2	-	-	2
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
Non-Teaching Credit Course (NTCC)						
AND004	Anandam-IV	NTCC	-	-	-	2
Total						27

PRACTICAL TRAINING – I: 6 – 8 WEEKS

FIFTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BDS 502	Foundation of data science	CC	2	1	-	3
BDS 503	Artificial Neural Networks	CC	2	1	-	3
BDS 504	Data Visualization	CC	3	-	-	3
BDS 550	Internship - I (Evaluation)	NTCC	-	-	-	5
Practical Courses						
BDS 522	Artificial Neural Networks Lab	CC	-	1	1	1
BDS 523	Machine Learning Laboratory	CC	-	-	2	1
BDS 524	Data Visualization Laboratory	CC	-	-	2	1
Domain Elective-III : Choose any ONE from the following courses along with their corresponding labs						
BDS 505	Pattern Recognition	DE	2	1	-	3
BDS 506	Advance Networking	DE	2	1	-	3
BDS 525	Pattern Recognition in Python Programming Lab	DE	-	-	2	1
BDS 526	Advance Networking Lab	DE	-	-	2	1
Open Elective Courses						
	OPEN ELECTIVE- 4	OE	3	-	-	3
Value Added Courses						
BCS 501	Communication Skills - III	VA	1	-	-	1
BSS 504	Behavioural Science -V (Group Dynamics and Team Building)	VA	1	-	-	1
Foreign Language - V						
FLT 501	French	VA	2	-	-	2
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
Non-Teaching Credit Course (NTCC)						
AND005	Anandam-V	NTCC	-	-	-	2
Total						30

SIXTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BDS 602	Statistical Methods for Data Engineering	CC	3	-	-	3
BDS 603	Data Analytics and Exploratory Data Analysis	CC	2	1	-	3
BDS 604	Fundamental concepts of IoT	CC	2	1	-	3
BDS 605	Intelligent Information Retrieval	CC	2	1	-	3
Practical Courses						
BDS 622	Data Analytics Laboratory	CC	-	-	2	1
BDS 624	Advanced SAS Programming Lab	CC	-	-	2	1
Domain Elective-IV : Choose any ONE from the following courses along with their corresponding labs						
BDS 606	Natural Language Processing	DE	2	1	-	3
BDS 607	Data Security	DE	2	1	-	3
BDS 608	Cloud Computing	DE	2	1	-	3
BDS 626	Natural Language Processing Lab	DE	-	-	2	1
BDS 627	Data Security Lab	DE	-	-	-	-
BDS 628	Cloud Computing Lab	DE	-	-	2	1
Open Elective Course						
	OPEN ELECTIVE- 5	OE	3	-	-	3
Value Added Courses						
BCS 601	Communication Skills – IV	VA	1	-	-	1
BSS 604	Behavioral Science – VI (Stress and Coping Strategies)	VA	1	-	-	1
FLT 601 FLG 601 FLS 601 FLC 601	Foreign Language – VI French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND006	Anandam-VI	NTCC	-	-	-	2
Total						27

PRACTICAL TRAINING – II: 6 – 8 WEEKS

SEVENTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BDS 702	Software Process and project	CC	2	1	-	3
BDS 703	Predictive Analytics	CC	3	-	-	3
BDS 750	Internship – II (Evaluation)	NTCC	-	-	-	4
Practical Courses						
BDS 722	Model Deployment Laboratory	CC	-	-	2	1
Domain Elective-V : Choose any ONE from the following courses along with their corresponding labs						
BDS 704	IoT Architecture and Protocol	DE	2	1	-	3
BDS 705	Statistics for Business Analytics	DE	2	1	-	3
BDS 706	Block Chain	DE	3	1	-	4
BDS 707	Deep Learning Algorithm and Architectures	DE	2	1	-	3
BDS 724	IoT Architecture and Protocol Lab	DE	-	-	2	1
BDS 725	Block Chain Lab	DE	-	-	2	1
BDS 727	Deep Learning Algorithm and Architectures Lab	DE	-	-	2	1
Open Elective Course						
	OPEN ELECTIVE- 6	OE	3	-	-	3
Value Added Courses						
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Behavioural Science – VII (Individual, Society and Nation)	VA	1	-	-	1
FLT 701 FLG 701 FLS 701 FLC 701	Foreign Language – VII French German Spanish Chinese	VA	2	-	-	2
Non-Teaching Credit Course (NTCC)						
AND007	Anandam-VII	NTCC	-	-	-	2
Total						24

EIGHTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
Core Courses						
BDS 801	Secure Cloud Computing	CC	2	1	-	3
BDS 802	Applied Machine Learning	CC	2	1	-	3
BDS 803	Digital Image Processing	CC	2	1	-	3
BDS 860	Project	NTCC	-	-	-	15
Practical Courses						
BDS 821	Soft Computing in MATLAB Lab	CC	-	-	2	1
BDS 823	Digital Image Processing Lab	CC	-	-	2	1
Total						26

Note:-

CC - Core Course,

VA - Value Added Course,

OE - Open Elective,

DE - Domain Elective,

FW - Field Work

COURSE OUTCOMES

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) Bachelor of Technology - (Data Science & Engineering)

APPLIED MATHEMATICS - I

Course Code: AM 101

CreditUnits: 04

At the successful completion of this course you (the student) should be able to:

1. Investigate the basic concept and applications of differential and integral Calculus.
2. Apply Leibnitz's theorem, Taylor's theorem and mean value theorems.
3. Calculate asymptotes, curvature, tangents & normals, maxima & minima, partial derivatives and approximate calculation of a function.
4. Find the length, area, volumes and solid of revolution using integration
5. Create an interest in finding the solution of problem, length, area, volume etc of the curve and application of Vector calculus.
6. Recognize and solve the ordinary differential equations.

APPLIED PHYSICS - I - FIELDS AND WAVES

Course Code: AP 102

CreditUnits: 03

By the end of the session students should be able to:

- 1) Define the various terms and principles involved in SHM
- 2) Explain plane progressive and ultrasonic waves
- 3) Explain and interpret the wave nature of light
- 4) Apply the various concepts of vector analysis to situations of practical interest
- 5) Calculate the value of electric field and magnetic field component by using the Maxwell's equations.

ENGINEERING MECHANICS

Course Code: BME 103

CreditUnits: 03

CLO1: Able to analyse the force system and its effects.

CLO 2: Explain the nature of forces acting upon a system.

CLO 2: Evaluate the static and dynamic system's problem

INTRODUCTION TO COMPUTERS AND PROGRAMMING IN C

Course Code: BCS 104

CreditUnits: 03

It is expected that by the end of the course, students will be comfortable in -

1. Attempting algorithmic solutions to problems
2. Designing and coding moderate sized programs running to the order of a few hundred lines of code, and
3. Reading, understanding and modifying code written by others.

BASIC ELECTRICAL ENGINEERING

Course Code: BEE 105

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Develop a practical approach for analysis of resistive circuits and solution of resistive circuits with independent sources.
2. Able to apply two terminal element relationships for inductors and capacitors in an electrical network.
3. Capable of analysis of single phase AC circuits, the representation of alternating quantities and determining the power in these circuits.
4. To acquire the knowledge about the constructional concepts & working principles for the applications of DC machines, AC machines & measuring instruments.
5. Able to identify, formulate, and solve the electrical engineering problems.

ENGLISH

Course Code: BCS 101

CreditUnits: 01

At the successful completion of this course you (the student) should be able to:

1. Participate in conversation and in small- and whole-group discussion
2. Explore and use English as medium of communication in real life situation
3. Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
4. Identify features of a reading textbook and utilize them as needed
5. Prepare and deliver organized presentations in small groups and to whole class
6. Apply sentence mechanics and master spelling of high frequency words

BEHAVIOURAL SCIENCE - I (UNDERSTANDING SELF FOR EFFECTIVENESS)

Course Code: BSS 104

CreditUnits: 01

It is expected that by the end of the course, students will be comfortable in -

1. Attempting algorithmic solutions to problems
2. Designing and coding moderate sized programs running to the order of a few hundred lines of code, and
3. Reading, understanding and modifying code written by others.

FRENCH - I

Course Code: FLT 101

CreditUnits: 02

At the successful completion of this course the students would be able to:
Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

GERMAN - I

Course Code: FLG 101

CreditUnits: 02

At the successful completion of this course you should be able to:

1. Identify and express in German vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in German
4. Narrate clearly ideas, themes in simple standard German

SPANISH – I

Course Code: FLS 101

CreditUnits: 02

After successful completion of the course, students will be able to perform verbally and in writing certain social functions. Students will develop five language skills: reading, writing, listening, speaking & interacting with the Spanish & the Spanish speakers whom they come across in their daily or professional life in respect of

Students will be able to perform communicative tasks (oral and written) like:

- Self introduction
- Possessions.
- Family/friend description with verbs like SER/ESTAR/TENER/HAY
- Regular AR/ER/IR ending verbs conjugations
- Interrogative words

CHINESE – I

Course Code: FLC 101

Credit Units: 02

At the successful completion of this course the students would be able to:
Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

APPLIED MATHEMATICS - II

Course Code: AM 201

Credit Units: 04

List the course learning outcomes (CLO) that prescribe the knowledge, attitudes, skills and practices that students are expected to acquire and demonstrate in completing this course.

At the successful completion of this course you (the student) should be able to:

1. Investigate the basic concept about Linear Algebra and Probability.
2. Create an interest in finding the solution of Linear equations and Probability.
3. Apply basic concepts of Linear Algebra to define the consistent and inconsistent system, and Probability operations to solving problems.

Develop the formulation of linear equation their existence, eigen value and eigen vector etc. as well as about basic discrete and continuous distributions and their applications

APPLIED PHYSICS - II - MODERN PHYSICS

Course Code:

AP 202

CreditUnits: 03

At the successful completion of this course you (the student) should be able to:

Define and understand space and time and the variations in other related fundamental quantities such as mass, velocity and force.

- 1) Solve simple problems relating to the above concepts.
- 2) Explain by extending the understanding as laid down in Quantum theory to other phenomenon as observed in sub-atomic Physics and also to solve simple problems in Quantum Theory
- 3) Appreciate and understand the various spectra as observed during electronic transitions
- 4) Understand the way nature has endowed properties to materials.

APPLIED CHEMISTRY

Course Code:

AC 203

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Understand the structure and chemical transformations of molecules.
2. Understand the application of chemical process in industries.
3. Basic idea about water treatment, lubrication, corrosion, fuel, spectroscopy etc.

DATA STRUCTURES USING C

Course Code: BCS 204

CreditUnits: 03

Upon successful completion of this course, students should be able to-:

1. Explain the systematic methods of efficiently organizing and accessing data in data structures and algorithms.
2. Identify the properties and structural patterns in data structures.
3. Apply abstract data types to the design of data structures.
4. Analyse algorithms using a mathematical notation and experimental studies.
5. Perform comparative analysis of the typical data structures and algorithms.
6. Design and Analyse recursive algorithms in data structures.
7. Write code in pseudocode and high-level programming languages for the implementation of various data structures and algorithms.

ENVIRONMENTAL STUDIES

Course Code: EVS 001

Credit Units: 04

At the successful completion of this course you (the student) should be able to:

1. Understand the importance, need and scope of the subject.
2. Evaluate local, regional and global environmental topics related to resource use and management.
3. Measure environmental variables and interpret results.
4. Interpret the results of scientific studies of environmental problems and propose solutions to these.
5. Implement “Sustainable development”, in day to day activities.

ELEMENTS OF MECHANICAL ENGINEERING

Course Code: BME 205

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate – Basic machines used in the field of mechanical engineering

2. Create – Mathematical models of fundamental physical phenomenon and apply them to predict the behaviour of engineering systems
3. Apply – this knowledge to analyse the working of IC Engines, Steam Turbines, Lathe machines etc.
4. Develop – Ability to perform and conduct basic experiments and evaluate the results of the same.

OPERATING SYSTEMS WITH UNIX

Course Code: BCS 303

Credit Units: 03

- CLO1:** Students will be able to identify the role of Operating System. To understand the design of control unit.
- CLO2:** Students will be able to analyse and understanding CPU Scheduling, Synchronization, Deadlock Handling and Comparing CPU Scheduling Algorithms. Solve Deadlock Detection Problems.
- CLO3:** Students will be able to describe the role of paging, segmentation and virtual memory in operating systems.
- CLO4:** Students will be able to understand description of protection and security and also the Comparison of UNIX and Windows based OS.

Students will be able to understand the concept of Defining I/O systems, Device Management Policies and Secondary Storage Structure and Evaluation of various Disk Scheduling Algorithms.

OBJECT ORIENTED PROGRAMMING USING C++

Course Code: BCS 304

Credit Units: 03

It is expected that by the end of the course, students will be comfortable in –

1. Understand object-oriented programming and advanced C++ concepts.
 - a. Be able to explain the difference between object-oriented programming and procedural programming.
 - b. Be able to program using more advanced C++ features such as composition of objects, operator overloads, dynamic memory allocation, inheritance and polymorphism, file I/O, exception handling, etc.

- c. Be able to build C++ classes using appropriate encapsulation and design principles.
2. Improve your problem-solving skills
 - a. Be able to apply object oriented or non-object-oriented techniques to solve bigger computing problems.
3. Goal: to make you a good programmer. Apply methods to analyse running time of essential data structures and estimate efficiency of the algorithms and implementations.

APPLIED MATHEMATICS - III

Course Code: AM 301

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate the basic concept about partial differential equations.
Create an interest in finding the solution by Fourier Series and Fourier
2. Transforms.
3. Apply basic concepts of Laplace Transformation.
4. Develop the physical problems using optimization techniques.

DIGITAL ELECTRONICS

Course Code: BCS 305

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Identify and explain fundamental concepts of digital logic design including basic and universal gates, number systems, binary coded systems, basic components of combinational and sequential circuits and concept of logic families.
2. Use the acquired knowledge to apply techniques related to the design and analysis of digital electronic circuits including Boolean algebra and multi-variable Karnaugh map methods.
3. Analyze small-scale combinational and sequential digital circuits.

- 4 Synthesize small-scale combinational and synchronous sequential digital circuit using Boolean algebra and K-maps.

COMMUNICATION SKILLS - I

Course Code: **BCS 301** **Credit Units: 01**

At the successful completion of this course the student should be able to:

1. Inculcating creative thinking skills
2. Construct and showcase their communication skills in a creative manner.
3. Comprehending and demonstrating ways of self introduction
4. Outlining and illustrating presentation Skills

BEHAVIOURAL SCIENCE - III
(INTERPERSONAL COMMUNICATION)

Course Code: **BSS 304** **Credit Units: 01**

It is expected that by the end of the course, students will be comfortable in –

1. Understand object-oriented programming and advanced C++ concepts.
 - a. Be able to explain the difference between object-oriented programming and procedural programming.
 - b. Be able to program using more advanced C++ features such as composition of objects, operator overloads, dynamic memory allocation, inheritance and polymorphism, file I/O, exception handling, etc.
 - c. Be able to build C++ classes using appropriate encapsulation and design principles.
2. Improve your problem-solving skills
 - a. Be able to apply object oriented or non-object-oriented techniques to solve bigger computing problems.
3. Goal: to make you a good programmer. Apply methods to analyse running time of essential data structures and estimate efficiency of the algorithms and implementations.

FRENCH - III

Course Code: FLT 301

Credit Units: 02

At the successful completion of this course you should be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

GERMAN - III

Course Code: FLG 301

Credit Units: 02

After successful completion of the course, the students will be able perform orally and in writing certain social functions:

1. Students will be able to ask and tell time.
2. Students will be able to frame sentences using Separable verb.
3. Student will be able to write and speak sentences using modal verb.
4. Students will be able to frame sentences and speak using was/were/had.

SPANISH – III

Course Code: FLS 301

Credit Units: 02

After successful completion of the course, students will be able to perform orally and in writing certain social functions:

Students will be able to perform communicative tasks (oral and written) with proficiencies in,

- a) Introduction of stem changing irregular verbs
- b) Introduction of prepositions (Cerca de/ lejos de/ encima de etc.)
- c) Present continuous tense (**Estar+ gerundio**)
- d) Introduction of third person verbs Gustar/Parecer/Encantar/ Doler (to like/ to seem like/ to enchant/ to hurt.) etc
- e) Interrogatives – How much/ How many

- f) Introduction of irregular verbs.
- g) Immediate future plans (Ir a + verbo)

THEORY OF AUTOMATA AND COMPUTATION

Course Code: BCS 402

CreditUnits: 03

1. Students will be able to understand the concept of computation and designing deterministic and nondeterministic finite automata.
2. Students will be able to analyse the basic properties of formal languages and formal grammars using computation model.
3. Students will be able to analyse and perform the basic properties of Push down automata & Context Free Grammars.
4. Students will be able to apply and evaluate basic properties of Turing machines and computing with Turing machines & Linear Bounded Automaton.
5. Students will be able to understand the concept of Recursive and recursively enumerable language and recursive functions.

DISCRETE MATHEMATICS

Course Code: BCS 403

Credit Units: 03

After completing this course, students will be able to:

- A. Proof and logics
- B. Set, relations.
- C. Formulate Lattices as partially ordered sets, their properties
- D. Join and meet irreducible elements of a lattice and introduction to Boolean algebra.
- E. Understand some basic properties of Boolean algebra to solve problem by different method and definition of graphs.

COMPUTER GRAPHICS

Course Code: BCS 404

CreditUnits: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate the structure of modern computer graphics systems
2. Create key algorithms for rasterize, modelling and rendering graphical data
3. Apply experience in constructing interactive computer graphics programs

4. Develop design and problem-solving skills with application to computer graphics

DATA COMMUNICATION AND COMPUTER NETWORKS

Course Code: BCS405

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Evaluate storage architectures and key data center elements in classic, virtualized and cloud environments
2. Explain physical and logical components of a storage infrastructure including storage subsystems, RAID and intelligent storage systems
3. Describe storage networking technologies such as FCSAN, IP-SAN, FCoE, NAS and object-based, and unified storage
4. Understand and articulate business continuity solutions – backup and replications, along with archive for managing fixed content
5. Explain key characteristics, services, deployment models, and infrastructure components for a cloud computing
6. Describe information security requirements and solutions, and identify parameters for managing and monitoring storage infrastructure in classic, virtualized and cloud environments

WEBSITE DESIGN

Course Code: BCS 406

CreditUnits: 03

1. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
2. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
3. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

HYPertext PREPROCESSOR (PHP)

Course Code: BCS 406

CreditUnits: 03

1. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
2. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
3. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

BEHAVIOURAL SCIENCE – IV (RELATIONSHIP MANAGEMENT)

Course Code: BSS 404

CreditUnits: 01

At the successful completion of this course you (the student) would be able to:

1. Identify the basis of interpersonal relationship.
2. Describe the importance of interpersonal relationship and bridging individual differences.
3. Recognize the development and strategies for effective interpersonal relationship.
4. Explain and apply the theories of relationship concepts of impression management.

FRENCH - IV

Course Code: FLT 401

Credit Units: 02

At the successful completion of this course the student should be able to:

- To buy their own food in a French supermarket
- To ask and express their needs
- To tell about their food habits
- To ask for a price
- To order food at a restaurant

- To give an appointment
- To invite someone to go out with
- Understand an announcement
- Know about Paris Metropolitan map
- Talk about his/her time-table
- Express a professional wish
- Formulate a project
- Read a board

GERMAN - IV

Course Code: FLG 401

Credit Units: 02

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

1. understand and give instructions
 3. understand and reply to a letter
 4. speak about learning languages
 5. find a particular information in a text
 6. understand a conversation

SPANISH - IV

Course Code: FLS 401

Credit Units: 02

At the successful completion of this course you should be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.

3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

SOFTWARE ENGINEERING

Course Code: BCS 502

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Apply their knowledge of mathematics, sciences, and computer science to the modelling, analysis, and measurement of software artefacts.
2. Analyze, specify and document software requirements for a software system.
3. Develop alternative design solutions to a given problem and recommend the best one within limitations of cost, time, knowledge, existing systems, and organizations.
4. Implement a given software design using s development practices.

COMPUTER ARCHITECTURE

Course Code: BCS 503

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate the Operate logical components and relate them with the various components of computer.
2. Create the general organization of the central processing unit.
3. Apply various computer memories and system communication mechanisms.
4. Develop various parallel processing architectures.

JAVA PROGRAMMING

Course Code: BCS 504

Credit Units: 03

At the successful completion of this course you should be able to:

1. Define object oriented terminology and JAVA programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application
5. Differentiate between C++ and java programming language
6. Create projects using Java programming.

ADVANCED NETWORKING

Course Code: BCS506

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate various advanced TCP/IP protocols for computer network
2. Compare working of wired network and wireless networks.
3. Develop networking techniques to solve complex problems.
4. Create and maintain network for institute or small organizations.

BEHAVIOURAL SCIENCE - V (GROUP DYNAMICS AND TEAM BUILDING)

Course Code: BSS 504

CreditUnits: 01

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them.

FRENCH - V

Course Code: FLT 501

Credit Units: 02

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. Identify and express in basic French vocabulary and grammar norms.
2. Interpret different types of texts, cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Express clearly ideas, themes in simple standard French

GERMAN - V

Course Code: FLG 501

Credit Units: 02

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

- Students will be able to ask and tell time.
- Students will be able to frame sentences using Separable verb.
- Student will be able to write and speak sentences using the modal verb.
- Students will be able to frame sentences and speak using was/were/had.

CHINESE – V

Course Code: FLC 501

CreditUnits: 02

At the successful completion of this course, you will be able to:

1. Read, write and speak approx. 100 New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of day today conversation related to using
3. Write Chinese characters, simple sentence and a paragraph on simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends discussing weather.”.

SOFTWARE TESTING AND QUALITY ASSURANCE

Course Code:BCS 602

CreditUnits: 03

At the successful completion of this course, the student should be able to:

- 1) Distinguish between Software quality and Quality control.
- 2) Explain Software testing concept and its applications.
- 3) Represent knowledge using various testing techniques.
- 4) Use the appropriate testing techniques in achieving desired goals.

ANALYSIS AND DESIGN OF ALGORITHM

Course Code: BCS603

CreditUnits: 03

At the successful completion of this course you should be able to:

1. Analyse time and space complexity of the given program/algorithms.
2. Apply Divide and conquer approach to solve real world problem
3. Implement sorting on a set of given unsorted values & searching algorithms
4. To impart the knowledge Greedy Method
5. To familiarize with Dynamic programming algorithms and its applications.

6. Apply Graph data structure on real life problems
7. To learn the back tracking & Brach and bound algorithms approach.
8. Identify the class of given the algorithms using Computational Complexity

SYSTEM PROGRAMMING

Course Code: BCS 605

CreditUnits: 03

At the successful completion of this course, the student should be able to:

- CLO1.** The student will know the Fundamentals of System Programming and able to understand about Machine instructions.
- CLO2.** The student will know the usage of Assemblers. And able to understand about compilers.
- CLO3.** The student has been able to understand how to link a program through linkers and how to load a program to loaders
- CLO4.** The student will learn about MS-Dos compiler as well as the debugging process.
- CLO5.** The student is aware about various types of operating systems.

MICROPROCESSORS

Course Code: BCS 604

CreditUnits: 03

At the successful completion of this course you (the student) should be able to:

- 1) Obtain basic development skills for microprocessor / microcontroller applications.
- 2) They can Gain a detailed understanding of any system for a specific application.
- 3) Student are able to design a any hardware based on application.
- 4) To familiarize the Architecture of 8085 and 8086microprocessor.
- 5) To classify the types and characteristics of buses in microprocessor.
- 6) To analyze the features, addressing mode and programming of Intel 8085 and 8086microprocessor.

ADVANCED JAVA PROGRAMMING

Course Code: BCS 606

Credit Units: 03

At the successful completion of this course you should be able to:

1. Define object oriented terminology and JAVA programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply RMI for networking

4. Apply the concept of JSP to work with web
5. Differentiate between C++ and java programming language
6. Create projects using JSP and database connectivity.

SOFTWARE PROJECT MANAGEMENT

Course Code: Bcs 607

Credit Units: 04

At the successful completion of this course you (the student) should be able to:

1. Apply their knowledge of mathematics and computer science to the modelling, analysis, and measurement of software artefacts.
2. Analyse, specify and document software requirements for a software system.
3. Develop alternative design solutions to a given problem and recommend the best one within limitations of cost, time, knowledge, existing systems, and organizations.
4. Implement a given software design using development practices

CLOUD COMPUTING

Course Code: BCS 608

CreditUnits: 03

- CLO1:** Students will be able to identify the role of Cloud Computing. To understand the working of current cloud technology trends.
- CLO2:** Students will be able to analyse and understand cloud computing concepts and opportunities related with the cloud.
- CLO3:** Students will be able to describe the role of network-based systems, distributed and cloud computing and virtualization.
- CLO4:** Students will be able to understand description of virtual cluster-based systems and virtualization for data center automation.
- CLO5:** Students will be able to create cloud-based systems with MS-Azure, Amazon-AWS, Google-GCP and configure the virtualization over there.

COMMUNICATION SKILLS - IV

Course Code: BCS 601

Credit Units: 01

At the successful completion of this course the student should be able to:

1. Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self orientation.
2. Showcase their leadership skills with effective team work.

3. Outline the basic etiquettes in expressing their credentials for professional and HR setup

**BEHAVIOURAL SCIENCE – VI
(STRESS AND COPING STRATEGIES)**

Course Code: BSS 604

CreditUnits: 01

At the successful completion of this course you (the student) would be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyse symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FRENCH - VI

Course Code: FLT 601

Credit Units: 02

At the successful completion of this course you should be able to:

- 1. Identify and express in French vocabulary and grammar norms**
- 2. Interpret different types of texts as well as cultural ideas and themes.**
- 3. Demonstrate comprehension of nuance between script and sound in French**
- 4. Narrate clearly ideas, themes in simple standard French**

GERMAN - VI

Course Code: FLG 601

Credit Units: 02

After successful completion of this semester, students will be able to:

- Express their likes and dislikes (buying groceries)
- Ask price and quantity
- express their likes and dislikes in terms of cloths
- buy clothes in the shopping mall

SPANISH – VI

Course Code: FLS 601

Credit Units: 02

At the successful completion of this course you should be able to:

- 1. Identify and express in Spanish vocabulary and grammar norms**
- 2. Interpret different types of texts as well as cultural ideas and themes.**
- 3. Demonstrate comprehension of nuance between script and sound in Spanish**
- 4. Narrate clearly ideas, themes in simple standard Spanish**

CHINESE – VI

Course Code: FLC 601

Credit Units: 02

At the successful completion of this course, you will be able to:

1. **Read, write and speak approx. 100** New Chinese words and understand basic grammar points.
2. **Interpret** words, phrases and sentences of day today conversation related to colour, shopping, transportation, medical care, Sports and entertainment etc.
3. **Write** Chinese characters, simple sentence and a paragraph on simple topic like colour, shopping, transportation, medical care, Sports and entertainment etc.
4. **Communicate** with Chinese speaking people using words, phrases and sentences related to colour, shopping, transportation, medical care, Sports and entertainment etc

ARTIFICIAL INTELLIGENCE

Course Code: BCS 702

CreditUnits: 03

Course learning outcomes (CLO)

CLO1: To learn the Problem solving and Scope of AI

CLO 2: Explain Knowledge Representation & Natural Languages CLO 3: To impart the knowledge of Expert System & Robotics

INFORMATION STORAGE AND MANAGEMENT

Course Code: BCS 703

Credit Units: 03

At the end of this course the students will be able to

1. Describe the challenges found in today's complex information management environment
2. Describe storage technology solutions (such as DAS, NAS, SAN and Virtualization technologies)
3. Explain the key business drivers for storage: Information Availability and Business Continuity
4. Illustrate common storage management roles and responsibilities
5. Describe the processes and technologies for identifying, analyzing security risks in storage infrastructure

COMPILER CONSTRUCTION

Course Code: BCS 704

CreditUnits: 03

At the successful completion of this course you (the student) should be able to:

1. Describe the theory and practices involved in compilation process, in particular, the lexical analysis, parsing code generation and optimization phases of compilation.
2. Understand the issues related to the designing of a compiler for a programming language.
3. To study the implementation of various compiler design issues by undertaking various case studies.

PROGRAMMING WITH ASP .NET

Course Code: BCS 705

CreditUnits: 03

At the successful completion of this course you should be able to:

1. Define object oriented terminology and C# programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application
5. Differentiate between C# and java programming language
6. Create projects using ASP.NET programming.

MOBILE COMPUTING

Course Code: BCS 706

Credit Units: 04

At the successful completion of this course you (the student) should be able to:

1. Investigate various advanced wireless protocols for mobile communication.
2. Compare working of wired network and wireless networks.
3. Develop networking techniques to solve complex problems.
4. Create and maintain network used in wireless condition.

DATA WAREHOUSING AND DATA MINING

Course Code:

BCS 707

Credit Units: 03

1. Understand what data mining is and how data mining can be employed and applied to solve real problems.
2. Recognize whether a data mining solution is a feasible alternative for a specific problem.
3. Apply basic statistical to evaluate the results of data mining models.
4. Develop a comprehensive understanding of how several data mining techniques can be applied to solve problems.

COMMUNICATION SKILLS - V

Course Code:

BCS 701

Credit Units: 01

At the successful completion of this course students should be able to:

1. Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while choosing the appropriate channel of formal communication
3. Apply acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the ease of using appropriate medium of communication.

BEHAVIOURAL SCIENCE - VII (INDIVIDUAL, SOCIETY AND NATION)

Course Code:

BSS 704

Credit Units: 01

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them.

FRENCH - VII

Course Code: FLT 701

CreditUnits: 02

6. At the successful completion of this course the students would be able to:
7. Perform communicative tasks (oral and written) like:
 1. Identify and express in French vocabulary and grammar norms
 2. Interpret different types of texts as well as cultural ideas and themes.
 3. Demonstrate comprehension of nuance between script and sound in French
 4. Narrate clearly ideas, themes in simple standard French

GERMAN - VII

Course Code: FLG 701

Credit Units: 02

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

- Talk and acquire information about their vacations and holidaying.
- Talk and acquire information about Weather and climat
- Talk and acquire information about the body parts
- Talk and discuss about diseases and health

SPANISH - VII

Course Code: FLS 701

Credit Units: 02

After successful completion of the course, students will be able to perform orally and in writing certain social functions:

Students will be able to perform communicative tasks (oral and written) with proficiencies in,

- Complementos directos e indirectos (Direct & Indirect Object Pronun)
- Estructuras comparativas (Comparative Structures)
- Preterito perfecto (Past Perefect)
- Imperativos (Imperative)
- Advertisements (Advertisements)
- Pasado Indefinido (Past Indefinite)

DIGITAL IMAGE PROCESSING

Course Code:

BCS 803

CreditUnits: 03

At the successful completion of this course you (the student) should be able to:

1. Investigate the fundamental concepts of a digital image processing system.
2. Create the spatial domain and frequency domain image enhancement techniques.
3. Apply which tools of image processing should be applied in order to solve the real problems.
4. Develop Matlab algorithms for digital image processing operations such as histogram equalization, image enhancement, image restoration, image analysis, image compression, morphology, representation and description, filtering and denoising.

CRYPTOGRAPHY AND NETWORK SECURITY

Course Code:

BCS 802

CreditUnits: 03

CLO1: Students will be able to understand the concept of different cryptography techniques transposition and substitution methods.

CLO2: Students will be able to analyse the DES, IDEA, Feistel Cipher cryptographic algorithm.

CLO3: Students will be able to Understand and analyse public key Cryptosystem using RSA and learn various techniques used for the distribution of key in public key cryptosystem.

CLO4: Students will be able to apply and evaluate Message authentication and hash function using MD5 and SHA and learn the concept of digital signature.

CLO5: Students will be able to understand the concept of IP security and password message protocols.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING & TECHNOLOGY
(ASET)**

B. Tech. (Robotics & IoT)

Program Code: BRI

121490

Duration – 4 Years Full Time

Programme Structure

Credits Summary

Semester	Core course (CC)	Domain Electives (DE)	Values Added Course (VAC)	Open Electives	NTCC	Total
I	24	-	4	-	2	30
II	23	-	4	3	2	32
III	20	3	4	3	---	30
IV	16	3	4	3	---	26
V	12	3	4	3	6	28
VI	16	3	4	3	--	26
VII	12	-	4	3	-	19
VIII	24	-	--	--		24
Total	147	12	28	18	10	215

Program Specific Outcomes (PSOs)

PSO.1-An ability to apply and understand the knowledge of mathematics, science, and engineering.

PL0.2-Knowledge and understanding of mathematics through differential and integral calculus, and basic sciences and engineering topics (including computing science) necessary to analyze and design complex electrical and electronic devices, software, and systems containing embedded hardware and software components and their design.

PSO.3-Develop and deploy engineering/technological solutions using latest techniques & tools/Keil, Proteus, MPLAB, LabVIEW, MATLAB, Tensor flow imbining concern for eco-system, and an attitude to serve society & humanity at large.

PSO.4-Graduates will successfully engage themselves in practice of multidisciplinary engineering or relevant fields; They will pursue wide-spectrum careers appropriately as technologists, innovators, consultants, managers & entrepreneurs and will advance in their profession.

PSO.5-An ability to design and conduct experiments as well as to analyze and interpret data.

PSO.6-An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, health and safety.

PSO7-An ability to identify, formulate, and solve engineering problems.

PSO8-Knowledge of probability and statistics, including applications appropriate to the electrical engineering (Electronics, Communication, Processing and Embedded technology)

Program Structure

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) B. Tech. (Robotics & IoT)

Semester I						
Code	Course	Category	L	T	P	Credits
Core Courses						
AM 101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics - I – Fields & Waves	CC	2	1		3
AC 103	Applied Chemistry	CC	2	1		3
BME 104	Element of Mechanical Engineering	CC	2	1		3
BCS 105	Introduction to Computers & Programming in C	CC	2	1		3
BEE 106	Basic Electrical Engineering	CC	2	1		3
Practical Courses						
AP 122	Applied Physics lab	CC	-	-	2	1
AC 123	Applied Chemistry lab	CC	-	-	2	1
BME 124	Element of Mechanical Engineering lab	CC	-	-	2	1
BCS 125	Programming in C lab	CC	-	-	2	1
BEE 126	Basic Electrical Engineering Lab	CC	-	-	2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I Understanding Self For Effectiveness- I		1	-	-	1
	Foreign Language – I		2	-	-	2
FLT 101	French					
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
Total						30

Semester II						
Code	Course	Category	L	T	P	Credits
Core Courses						
AM 201	Applied Mathematics – II	CC	3	1	-	4
AP 202	Applied Physics - II – Modern Physics	CC	2	1		3
BCS 203	Object Oriented Programming using C++	CC	2	1		3
BME 204	Engineering Mechanics	CC	2	1		3
BME 205	Engineering Graphics	CC	1			1
BME 206	Domain Workshop	CC	1	-	-	1
Practical Courses						
AP 222	Applied Physics - II – Modern Physics lab	CC	-	-	2	1
BCS 223	Object Oriented Programming using C++ lab	CC	-	-	2	1
BME 224	Engineering Mechanics lab	CC	-	-	2	1
BME 225	Engineering Graphics lab	CC	-	-	2	1
Open Elective						
	OPEN ELECTIVE – I	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioral Science-II (Problem Solving & Creation thinking)	VA	1	-	-	1
	Foreign Language – II	VA	2	-	-	2
FLF 201	French					
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
EVS 001	Environmental Studies	VC	4	-	-	4
Non-Teaching Credit Course (NTCC)						
AND002	Anandan-II	NTCC	-	-	2	2
Total						32

Semester III						
Code	Course	Category	L	T	P	Credits
Core Courses						
AM 301	Discrete Mathematics	CC	3	-	-	3
BRI 301	Electronics Device and circuit	CC	3	1	-	4
BEC 303	Circuits & Systems	CC	3	1	-	4
BRI 302	Theory of automation and computation	CC	2	1	-	3
BEC 305	Digital circuit system-I	CC	3	-	-	3
Practical Courses						
BEC 321	Electronics Device and circuit Lab	CC	-	-	2	1
BEC 323	Circuits & Systems Lab	CC	-	-	2	1
BEC 325	Digital circuit system I LAB	CC	-	-	2	1
Domain Elective-I: Student must select one course from the following courses						
BRI 303	Electrical and Electronic materials	DE	2	1		3
BRI 304	Electronic measurement	DE	2	1		3
Open Elective						
	OPEN ELECTIVE – II	OE	3		-	3
Value Added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science-III (Interpersonal Communication)	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language – III French German Spanish Chinese	VA	2	-	-	2
Total						30

Semester IV						
Code	Course	Category	L	T	P	Credits
Core Courses						
BRI 401	Computer aided design and Analysis	CC	3	-		3
BRI 402	Microprocessor and microcontroller system	CC	3	-		3
BRI 403	Sensor and Transducer	CC	3	-	-	3
BRI 404	Linear Integrated circuit	CC	3	-		3
Practical Courses						
BRI 421	Computer aided design and Analysis lab	CC			2	1
BRI 422	Microprocessor and microcontroller system lab	CC			2	1
BRI 423	Sensor and Transducer lab	CC			2	1
BRI 424	Linear Integrated circuit	CC			2	1
Domain Elective-II: Student has to select one course from the following courses						
BRI 405	Signal and System	DE	2	1		3
BRI 406	Virtual instruments	DE	2	1		3
Open Elective						
	OPEN ELECTIVE – III	OE	3			3
Value Added Courses						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 404	Behavioral Science-IV (Relationship Management)	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language – IV French German Spanish Chinese	VA	2	-	-	2
Total						26

Semester V						
Code	Course	Category	L	T	P	Credits
Core Courses						
BRI 501	Arduino and Its Interfacing	CC	3	-		3
BRI 502	Robotics & Automation	CC	3	-	-	3
BRI 503	Control System/DSP	CC	3	-		3
BEC 550	Industrial Training (Evaluation)	CC	-	-	-	6
Practical Courses						
BRI 521	Arduino and Its Interfacing Lab	CC			2	1
BRI 522	Robotics & Automation lab	CC	-	-	2	1
BRI 523	Control System lab/DSP	CC			2	1
Domain Elective-III: Student has to select one course from the following courses						
BRI 504	Python for data science	DE	3			3
BRI 505	R for data science	DE	3			3
BRI 506	Industrial Automation	DE	3			3
Open Elective						
	OPEN ELECTIVE – IV	OE	3			3
Value Added Courses						
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 504	Behavioral Science-V (Understanding self for effectiveness)	VA	1	-	-	1
FLT 501 FLG 501 FLS 501 FLC 501	Foreign Language – V French German Spanish Chinese	VA	2	-	-	2
Total						28

Semester VI						
Code	Course	Category	L	T	P	Credits
Core Courses						
BRI 601	Robotics motor and drives	CC	3	-		3
BRI 602	Mechatronics and robotics application	CC	3	-		3
BRI 603	IoT and cloud computing	CC	3	-		3
BRI 604	Digital Communications	CC	3	-	-	3
Practical Courses						
BRI 621	Robotics motor and drives lab	CC			2	1
BRI 622	Mechatronics and robotics application lab	CC			2	1
BRI 623	IoT and cloud computing lab	CC			2	1
BRI 624	Digital Communications lab	CC		-	2	1
Domain Elective-IV: Student has to select one course from the following courses						
BRI 605	Tools and technique for data science	DE	3			3
BRI 606	Deep Learning	DE	3			3
BRI 607	Industrial IoT 4.0	DE	3			3
Open Elective						
	OPEN ELECTIVE – V	OE	3			3
Value Added Courses						
BCS 601	Communication Skills – IV	VA	1	-	-	1
BSS 604	Understanding self for Effectiveness – VI	VA	1	-	-	1
	Foreign Language – VI	VA	2	-	-	2
FLT 601	French					
FLG 601	German					
FLS 601	Spanish					
FLC 601	Chinese					
Total						26

Semester VII						
Code	Course	Category	L	T	P	Credits
Core Courses						
BRI 701	Raspberry Pi and Its interfacing	CC	3	-		3
BRI 702	Cloud development IoT applications	CC	3	-		3
BRI 703	Advanced Robotics	CC	3	-		3
Practical Courses						
BRI 721	Raspberry Pi and Its interfacing lab	CC			2	1
BRI 722	Cloud development IoT applications lab	CC			2	1
BRI 723	Advanced Robotics lab	CC			2	1
Open Elective						
	OPEN ELECTIVE – VI	OE	3			3
Value Added Courses						
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Understanding self for effectiveness – VII	VA	1	-	-	1
	Foreign Language – VII	VA	2	-	-	2
FLT 701	French					
FLG 701	German					
FLS 701	Spanish					
FLC 701	Chinese					
TOTAL						19

Semester VIII						
Code	Course	Category	L	T	P	Credits
Core Courses						
BRI 801	Project design based upon patent and copyright	CC	6	-	-	24
Total						24
Note: CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work						
Total Credits						226

COURSE OUTCOMES

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) B. Tech. (Robotics & IoT)

Course Name	Course Code	LTP	Credit	Semester
APPLIED MATHEMATICS – I	AM 101	4	4	1

COURSE OUTCOMES (CO)

CLO 1	Solve system of linear equations; be familiar with the definition and properties of matrix; find the eigenvalues and eigenvectors of a square matrix.
CLO 2	Investigate the convergence of infinite series using different tests.
CLO 3	Calculate the measure of central tendency, moments, skewness and kurtosis.
CLO 4	Develop knowledge of basic discrete and continuous distributions (Binomial, Poisson, Normal) and how to work with them.
CLO 5	Apply the method to use complex variable and complex valued

Course Name	Course Code	LTP	Credit	Semester
APPLIED PHYSICS - I - FIELDS AND WAVES	AM 102	3	3	1

COURSE OUTCOMES (CO)

CLO 1	develop an understanding of the various concepts of simple harmonic motion for with and without damping.
CLO 2	solve simple problems on simple harmonic motion and related topics
CLO 3	explain and interpret the wave nature of light.

CLO 4	solve simple problems on the applications of wave nature of light
CLO 5	define and understand vector calculus and electromagnetics
CLO 6	solve numerical problems on vector calculus and electromagnetics

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - I (UNDERSTANDING SELF FOR EFFECTIVENESS)	BSS 104	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Demonstrate awareness of self and the process of self-exploration.
CLO 2	Demonstrate knowledge of strategies for developing a healthy self-esteem.
CLO 3	Recognize the importance of attitudes and its effect on personality.
CLO 4	Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.
CLO 5	Demonstrate awareness of self and the process of self-exploration.

Course Code:

Credit Units: 02

Course Name	Course Code	LTP	Credit	Semester
FRENCH	FLT 101	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
GERMAN	FLG 101	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
SPANISH	FLS 101	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
--------------	--

CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
CHINESE	FLC 101	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND001	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Awareness and empathy regarding community issues
CLO 2	Interaction with the community and impact on society
CLO 3	Interaction with mentor and development of Student teacher relationship

CLO 4	Interaction among students, enlarge social network
CLO 5	Cooperative and Communication skills and leadership qualities
CLO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
APPLIED MATHEMATICS – II	AM 201	4	4	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
APPLIED PHYSICS - II - MODERN PHYSICS	AP 202	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Define and understand space and time and the variations in other related fundamental quantities such as mass, velocity and force
CLO 2	Solve simple problems relating to the above concepts.

CLO 3	Explain by extending the understanding as laid down in Quantum theory to other phenomenon as observed in sub-atomic Physics and also to solve simple problems in Quantum Theory
CLO 4	Appreciate and understand the various spectra as observed during electronic transitions and Understand the way nature has endowed properties to materials

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - II (PROBLEM SOLVING AND CREATIVE THINKING)	BSS 204	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Recognize the relation critical thinking with various mental processes.
CLO 2	Identify hindrance to problem solving processes
CLO 3	Analyze the steps in problem-solving process.
CLO 4	Create plan of action applying creative thinkings

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - II (PROBLEM SOLVING AND CREATIVE THINKING)	BSS 204	1	1	1

CLO 1	Recognize the relation critical thinking with various mental processes.				
	Course Name	Course Code	LTP	Credit	Semester
CLO 2	Identify hindrance to problem solving processes				
	FRENCH	FLF 201	2	2	1
CLO 3	Analyze the steps in problem-solving process.				
CLO 4	Create plan of action applying creative thinkings				

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
GERMAN	FLG 201	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
SPANISH	FLS 201	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
CHINESE	FLC 201	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND002	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Awareness and empathy regarding community issues
CLO 2	Interaction with the community and impact on society
CLO 3	Interaction with mentor and development of Student teacher relationship
CLO 4	Interaction among students, enlarge social network
CLO 5	Cooperative and Communication skills and leadership qualities
CLO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
DISCRETE MATHEMATICS	AM 301	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Proof and logic
CLO 2	Set, relations.
CLO 3	Formulate Lattices as partially ordered sets, their properties
CLO 4	Join and meet irreducible elements of a lattice and introduction to Boolean algebra.
CLO 5	Understand some basic properties of Boolean algebra to solve problem by different method and definition of graphs.

Course Name	Course Code	LTP	Credit	Semester
Electronics Device and circuit	BRI 301	4	4	1

COURSE OUTCOMES (CO)

CLO 1	Explain basic Physics of semiconductor material and structure and operation of the pn junction.
CLO 2	Explain I-V characteristics, Modeling, Device operation and application of diodes.
CLO 3	Analyze diode circuits. Cognitive
CLO 4	Explain I-V characteristics, Modeling, Device operation and application of BJT and MOSFET. Cognitive,
CLO 5	Explain basic Physics of semiconductor material and structure and operation of the pn junction.

Course Name	Course Code	LTP	Credit	Semester
CIRCUITS AND SYSTEMS	BEC 303	4	4	1

COURSE OUTCOMES (CO)

CLO 1	Do the time-domain and S- domain analysis of circuits
CLO 2	2. Obtain transfer functions of circuits and analysis of stability using poles of the transfer function

CLO 3	3. Analyze the frequency response of circuits and to obtain the correlation between time domain and frequency domain response specifications
CLO 4	4. Obtain steady state solutions for nonsinusoidal inputs using fourier series and to analyze the effect of harmonics in circuits
CLO 5	5. Understand the features of two port networks and to obtain their equivalent circuits

COMMUNICATION SKILLS - I

Course Code: BCS 301

Credit Units: 01

COURSE OUTCOMES (CO)

CLO 1	Inculcating creative thinking skills
CLO 2	Construct and showcase their communication skills in a creative manner.
CLO 3	Comprehending and demonstrating ways of self-introduction
CLO 4	Outlining and illustrating presentation Skills

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - III (INTERPERSONAL COMMUNICATION)	BSS 304	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Demonstrate knowledge of strategies for developing a healthy interpersonal communication.
CLO 2	Recognize the importance of transactional analysis, script analysis.
CLO 3	Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management.
CLO 4	Enhance personal effectiveness and performance through effective interpersonal communication

Course Name	Course Code	LTP	Credit	Semester
FRENCH	FLT 301	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
GERMAN	FLG 301	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
SPANISH	FLG S01	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
CHINESE	FLC 301	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
MICROPROCESSOR AND MICROCONTROLLER SYSTEM	BRI 402	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Obtain basic development skills for microprocessor / microcontroller applications.
CLO 2	They can Gain a detailed understanding of any system for a specific application.
CLO 3	3Student are able to design a any hardware based on application.
CLO 4	4To familiarize the Architecture of 8085 and 8086microprocessor.
CLO 5	To classify the types and characteristics of buses in microprocessor.

Course Name	Course Code	LTP	Credit	Semester
SENSOR AND TRANSDUCER	BRI 403	3	3	3

COURSE OUTCOMES (CO)

CLO 1	students will be able to understand the operation principles of different sensors for industrial and environmental use.
CLO 2	They will be able to characterize them in terms of metrological criteria and evaluate their performance.
CLO 3	students will be provided the knowledge they need to choose the appropriate sensor for measurement, process control and environmental monitoring applications and apply it in a correct way.
CLO 4	Students able to implement simple data acquisition systems and to analyze and evaluate the acquired data

Course Name	Course Code	LTP	Credit	Semester
LINEAR INTEGRATED CIRCUIT	BRI404	3	3	3

COURSE OUTCOMES (CO)

CLO 1	o learn the fundamentals of the op-amp and describe mathematical operation and modern techniques used in it
CLO 2	Students will be able to analyse application of op-amp like log and antilog amplifier, precision rectifier , comparator etc.
CLO 3	Discuss different types of oscillator circuit with applications.
CLO 4	Students will be able to understand the knowledge of active filter with their response.
CLO 5	Students will be able to analyse the Illustrate linear integrated circuit applications

	like timer 555, fixed and variable regulated ic of electronics and recent trends in it.
CLO 6	o learn the fundamentals of the op-amp and describe mathematical operation and modern techniques used in it

Course Name	Course Code	LTP	Credit	Semester
SIGNALS AND SYSTEM	BRI 405	3	3	3

COURSE OUTCOMES (CO)

CLO 1	Learn & understand about the of signal & systems
CLO 2	2. Understand the different types of transformation on signal and their need.
CLO 3	3. Learn to fundamental functioning of time to frequency domain analysis and implementation.
CLO 4	4. Understand the various industrial applications in of signal and systems.

Course code BRI 406

Credit Units 04

Course Name	Course Code	LTP	Credit	Semester
VIRTUAL INSTRUMENTS	BRI 406	4	4	4

COURSE OUTCOMES (CO)

CLO 1	demonstrate the working of LabVIEW.
CLO 2	explain the various types of structures used in LabVIEW.
CLO 3	analyze and design different type of programs based on data acquisition.
CLO 4	demonstrate the use of LabVIEW for signal processing, image processing etc

Course Name	Course Code	LTP	Credit	Semester
COMMUNICATION SKILLS - II	BCS 401	1	1	4

COURSE OUTCOMES (CO)

CLO 1	Identify steps to professional communication
CLO 2	Identify the key components of meeting, agendas and meeting minutes
CLO 3	Understand the key skills and behaviors required to facilitate a group discussion/presentation

CLO 4	Polish current affairs & rapport building
-------	---

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - IV (RELATIONSHIP MANAGEMENT)	BSS 404	1	1	4

COURSE OUTCOMES (CO)

CLO 1	Identify the basis of interpersonal relationship.
CLO 2	Describe the importance of interpersonal relationship and bridging individual differences.
CLO 3	Recognize the development and strategies for effective interpersonal relationship.
CLO 4	Explain and apply the theories of relationship concepts of impression management

Course Code:

Credit Units: 02

Course Name	Course Code	LTP	Credit	Semester
FRENCH - IV	FLT 401	2	2	4

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
GERMAN - IV	FLG 401	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
SPANISH - IV	FLS 401	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND004	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Awareness and empathy regarding community issues
CLO 2	Interaction with the community and impact on society
CLO 3	Interaction with mentor and development of Student teacher relationship
CLO 4	Interaction among students, enlarge social network
CLO 5	Cooperative and Communication skills and leadership qualities
CLO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
CHINESE – IV	FLC 401	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
ARDUINO AND ITS INTERFACING	BRI 501	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Create sketches, libraries inside the Arduino Development Environment.
CLO 2	Measure various physical parameters using sensors.
CLO 3	Implement various communication protocols for wired and wireless communication.

Course Name	Course Code	LTP	Credit	Semester
ROBOTICS & AUTOMATION	BRI 502	3	3	1

COURSE OUTCOMES (CO)

CLO 1	. Introduce the fundamental aspects of Autonomous Vehicles.
CLO 2	Gain Knowledge about the Sensing Technology and Algorithms applied in Autonomous vehicles.
CLO 3	Understand the Connectivity Aspects and the issues involved in driverless cars.

Course Name	Course Code	LTP	Credit	Semester
CONTROL SYSTEM/DSP	BRI 503	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Ability to express the basic elements and structures of feedback control systems.
CLO 2	Apply the basic mathematical tools to simplify and analyze the transfer function of the feedback systems.
CLO 3	Use the time and frequency domain techniques to analyse the performance of the systems.
CLO 4	Design a suitable PID Controller to improve the performance the controlled systems

CLO 5	Design a suitable compensator to achieve the desired performance of the controlled systems.
-------	---

Course Name	Course Code	LTP	Credit	Semester
INDUSTRIAL TRAINING (Evaluation)	BEC 550	6	6	1

COURSE OUTCOMES (CO)

CLO 1	Safely wire and operate electronics devices and their associated metering and starting equipment.
CLO 2	Develop a practical approach for the construction, characteristics, operation and application of electronics devices.
CLO 3	Able to solve problems relating to generated voltage, terminal voltage, currents, torque, speed, input and output power, efficiency, and voltage/speed regulation in ECE fields.
CLO 4	Capable of solving problems relating to analog, digital, control and instrumentation engineering.
CLO 5	To acquire the knowledge about the results of laboratory tests on various ECE under various conditions.
CLO 6	Able to identify, formulate, and solve the electronics engineering related problems.

Course Name	Course Code	LTP	Credit	Semester
PYTHON FOR DATA SCIENCE	BRI 504	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Know basic data types in Python.
CLO 2	Know operators, how to clean and merge datasets.
CLO 3	Know pandas library, the main methods for DataFrames.
CLO 4	Know how to import data in Python
CLO 5	Know how to work in Jupyter Notebook.

Course Name	Course Code	LTP	Credit	Semester
R FOR DATA SCIENCE	BRI 505	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Students will demonstrate proficiency with statistical analysis of data..
CLO 2	Students will develop the ability to build and assess data-based models.

CLO 3	Students will execute statistical analyses with professional statistical software.
CLO 4	Students will demonstrate skill in data management

Course Name	Course Code	LTP	Credit	Semester
INDUSTRIAL AUTOMATION	BRI 506	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Differentiate the various types of Industrial Robots and their architecture.
CLO 2	. Apply the concepts of image processing for robotic inspection systems.
CLO 3	Analyze the applications of robots in various industrial application.
CLO 4	Design and fabricate simple grippers for pick and place application.
CLO 5	Identify the right Robot for a given industrial application
CLO 6	. Select the right material handling system for a given application

Course Name	Course Code	LTP	Credit	Semester
COMMUNICATION SKILLS - III	BCS 501	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CLO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CLO 3	Demonstrate proficiency in the use of written communication.
CLO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.
CLO 5	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - V (UNDERSTANDING SELF FOR EFFECTIVENESS)	BSS 504	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Demonstrate awareness of self and the process of self-exploration. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
CLO 2	Demonstrate knowledge of strategies for developing a healthy self-esteem.
CLO 3	Recognize the importance of attitudes and its effect on personality.
CLO 4	Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

Course Name	Course Code	LTP	Credit	Semester
FRENCH - V	FLT 501	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
GERMAN - V	FLG 501	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
SPANISH - V	FLS 501	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
CHINESE – V	FLC 501	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND005	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Awareness and empathy regarding community issues
CLO 2	Interaction with the community and impact on society
CLO 3	Interaction with mentor and development of Student teacher relationship
CLO 4	Interaction among students, enlarge social network
CLO 5	Cooperative and Communication skills and leadership qualities
CLO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
ROBOTICS MOTOR AND DRIVES	BRI 601	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Describe the characteristics of a robotic system from its dynamic model.
CLO 2	Analyze the stability of robotic systems with the help of theorems.
CLO 3	Illustrate the various task space control schemes available.

Course Name	Course Code	LTP	Credit	Semester
MECHATRONICS AND ROBOTICS APPLICATION	BRI 602	3	3	1

COURSE OUTCOMES (CO)

CLO 1	To acquire the knowledge on advanced algebraic tools for the description of motion.
CLO 2	To develop the ability to analyses and design the motion for articulated systems.
CLO 3	To develop an ability to use software tools for analysis and design of robotic systems.

Course Name	Course Code	LTP	Credit	Semester
IOT AND CLOUD COMPUTING	BRI 603	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Understand the various concept of the IoT and their technologies.
CLO 2	Develop the IoT application using different hardware platforms
CLO 3	Implement the various IoT Protocols
CLO 4	Understand the basic principles of cloud computing.
CLO 5	Develop and deploy the IoT application into cloud environment

Course Name	Course Code	LTP	Credit	Semester
DIGITAL COMMUNICATIONS	BRI 604	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Develop a comparatively approach for analysis of various digital modulation schemes.
CLO 2	Able to calculate practical parameters for better signal reception of baseband signal.
CLO 3	Able to analysis of various techniques to transmit analog samples along, signal reception and signalling schemes.
CLO 4	Capable of analysis different digital modulations schemes and their comparison.
CLO 5	To acquire the knowledge about the multiplexing techniques used worldwide

Course Name	Course Code	LTP	Credit	Semester
TOOLS AND TECHNIQUE FOR DATA SCIENCE	BRI 605	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Students will develop relevant programming abilities.
CLO 2	Students will demonstrate proficiency with statistical analysis of data
CLO 3	Students will develop the ability to build and assess data-based models.
CLO 4	Students will execute statistical analyses with professional statistical software.

CLO 5	Students will demonstrate skill in data management. Students will apply data science concepts and methods to solve problems in real-world contexts and
CLO 6	will communicate these solutions effectively

Course Name	Course Code	LTP	Credit	Semester
DEEP LEARNING	BRI 606	3	3	1

COURSE OUTCOMES (CO)

CLO 1	To present the mathematical, statistical, and computational challenges of building neural networks
CLO 2	To study the concepts of deep learning
CLO 3	To introduce dimensionality reduction techniques
CLO 4	To enable the students to know deep learning techniques to support real-time applications
CLO 5	To examine the case studies of deep learning techniques

Course Name	Course Code	LTP	Credit	Semester
INDUSTRIAL IOT 4.0	BRI 607	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Comprehend Business model innovation through Industry 4.0
CLO 2	Comprehend IoT, cyber-physical systems, cloud computing and big data, smart factories and their role in Industry 4.0
CLO 3	Understand drivers and enablers of Industry 4.0, including policy support
CLO 4	Understand the nature of the fourth industrial revolution and theoretical concept
CLO 5	Understand the opportunities, and challenges brought through Industry 4.0

Course Name	Course Code	LTP	Credit	Semester
COMMUNICATION SKILLS - IV	BCS 601	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CLO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CLO 3	Demonstrate proficiency in the use of written communication.

CLO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.
CLO 5	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - (STRESS AND COPING STRATEGIES)	BSS 604	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Identify stress and that an individual come across.
CLO 2	Recognize the causes of stress in their lives.
CLO 3	Analyze symptoms and how they are affecting lives.
CLO 4	Create ways to effectively cope with it.
CLO 5	Identify stress and that an individual come across.

Course Name	Course Code	LTP	Credit	Semester
FRENCH - VI	FLT 601	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
GERMAN - VI	FLG 601	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
SPANISH – VI	FLS 601	2	2	1

--	--	--	--	--

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
CHINESE – VI	FLC 601	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND006	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Awareness and empathy regarding community issues
CLO 2	Interaction with the community and impact on society
CLO 3	Interaction with mentor and development of Student teacher relationship
CLO 4	Interaction among students, enlarge social network
CLO 5	Cooperative and Communication skills and leadership qualities
CLO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Raspberry Pi and Its interfacing	BRI 701	3	3	1

COURSE OUTCOMES (CO)

CLO 1	Wire Raspberry Pi and create a fully functional computer
CLO 2	Use Python-based IDE and trace and debug Python code on the device and Measure physical parameter using sensors.
CLO 3	Implement various communication protocols for wired and wireless communication. And Interfaces different motors and create robots

Course Name	Course Code	LTP	Credit	Semester
Cloud development IoT applications	BRI 702	3	3	1

COURSE OUTCOMES (CO)

CLO 1	To become familiar with Cloud Computing and its ecosystem
CLO 2	To learn basics of virtualization and its importance
CLO 3	To evaluate in-depth analysis of Cloud Computing capabilities
CLO 4	To give a technical overview of Cloud Programming and Services.
CLO 5	To understand security issues in cloud computing

Course Name	Course Code	LTP	Credit	Semester
Advanced Robotics	BRI 703	3	3	1

COURSE OUTCOMES (CO)

CLO 1	An ability to work professionally in mechanical systems including design, analysis, production, measurement and quality control.
CLO 2	An ability to work on diverse disciplinary tasks including manufacturing, materials, thermal, automobile, robotics, mechatronics, engineering software tools, automation and computational fluid dynamics.

Course Name	Course Code	LTP	Credit	Semester
COMMUNICATION SKILLS - V	BCS 701	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
CLO 2	Create right selection of words and ideas while choosing the appropriate channel of formal communication
CLO 3	Apply acquired knowledge with the appropriate selection of channel of formal communication.
CLO 4	Develop and empower self with the ease of using appropriate medium of communication.
CLO 5	Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - VII (INDIVIDUAL, SOCIETY AND NATION)	BSS 704	1	1	1

COURSE OUTCOMES (CO)

CLO 1	Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
CLO 2	Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
CLO 3	Recognize different types of human rights and its importance.

Course Name	Course Code	LTP	Credit	Semester
FRENCH – VII	FLG 701	2	2	1

--	--	--	--	--

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
GERMAN - VII	FLG 701	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
SPANISH - VII	FLG 701	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
CHINESE – VII	FLG 701	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Anandam	AND007	2	2	1

COURSE OUTCOMES (CO)

CLO 1	Awareness and empathy regarding community issues
CLO 2	Interaction with the community and impact on society
CLO 3	Interaction with mentor and development of Student teacher relationship
CLO 4	Interaction among students, enlarge social network
CLO 5	Cooperative and Communication skills and leadership qualities
CLO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Project design based upon patent and copyright	BRI 801	4:0:0	24	1

COURSE OUTCOMES (CO)

CLO 1	To introduce fundamental aspects of Intellectual property Rights to students who are going to play a major role in development and management of innovative projects in industries.
CLO 2	To disseminate knowledge on patents, patent regime in India and abroad and registration aspects
CLO 3	To disseminate knowledge on copyrights and its related rights and registration aspects
CLO 4	To disseminate knowledge on trademarks and registration aspects
CLO 5	To disseminate knowledge on Design, Geographical Indication (GI), Plant Variety and Layout Design Protection and their registration aspects
CLO 6	To aware about current trends in IPR and Govt. steps in fostering IPR



AMITY UNIVERSITY
RAJASTHAN

**AMITY SCHOOL OF ENGINEERING & TECHNOLOGY
(ASET)**

Bachelor of Technology

Mechatronics Engineering

Programme Code: BMT

121451

Duration – 4 Years Full Time

Programme Structure

Credits Summary

B.Tech-Mechatronics (Bachelor of Technology) (04 Years/ 08 Semesters)						
Semester	Core Course (CC+P C)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non-Teaching Credit Courses (NTC C)	Total
I	24	-	4	-	-	28
II	25	-	4	3	-	32
III	19	3	4	3		29
IV	18	3	4	3		28
V	11	3	4	3	5	26
VI	19	3	4	3		29
VII	09	3	4	-	6	22
VIII	15	3	-	-		18
Total	140	18	28	15	11	212

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTC C = Non - Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

- Students will be able to apply knowledge of mathematics, science, engineering, and technology to engineering technology problems that enquire the application of principles and applied procedures or methodologies.
- Students will be able to use current techniques, skills, and modern tools of mechatronics engineering technology to broadly defined engineering technology activities including proficiency in mechanical design, materials, manufacturing processes, and automation.
- Students will be able to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes.
- Students will be able to demonstrate an ability to design systems, components, or processes for broadly defined engineering technology problems.
- Students will be able to analyze the impact of engineering technology solutions in a societal and global context.
- Students will be able to manage projects related to Mechatronics Engineering in multidisciplinary environments.

Program Structure

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) Bachelor of Technology - Mechatronics Engineering

FIRST SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
AM101	Applied Mathematics – I	CC	3	1	-	4
AP 102	Applied Physics-I – Fields & Waves	CC	2	1	-	3
AC 203	Applied Chemistry	CC	2	1	-	3
BME 205	Elements of Mechanical Engineering	CC	2	1	-	3
BCS 104	Introduction to Computers & Programming in C	CC	2	1	-	3
BEE 105	Basics of Electrical and Electronics Engineering	CC	2	1	-	3
Practical Courses						
AP 122	Applied Physics-I – Fields & Waves Lab	PC	-	-	2	1
AC 223	Applied Chemistry Lab	PC	-	-	2	1
BME 225	Elements of Mechanical Engineering Lab	PC	-	-	2	1
BCS 124	Programming in C Lab	PC	-	-	2	1
BEE 125	Basics of Electrical and Electronics Engineering Lab	PC	-	-	2	1
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 104	Behavioral Science-I Understanding Self For Effectiveness- I	VA	1	-	-	1
FLT 101	Foreign Language - I French	VA	2	-	-	2
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
TOTAL						28

SECOND SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
AM 201	Applied Mathematics – II	CC	3	1	-	4
AP 202	Applied Physics-II – Modern Physics	CC	2	1	-	3
BCS 203	Object Oriented Programming using C ⁺⁺	CC	2	1	-	3
BME 204	Engineering Mechanics	CC	2	1	-	3
BME 205	Engineering Graphics	CC	1	-	-	1
BMT 205	Introduction to Engineering and Design	CC	2	-	-	2
EVS 001	Environment Studies	CC	3	1	-	4
BMT 206	Domain Workshop	CC	1	-	-	1
Practical Courses						
AP 222	Applied Physics-II – Modern Physics Lab	PC	-	-	2	1
BCS 223	Object Oriented Programming using C ⁺⁺ Lab	PC	-	-	2	1
BME 224	Engineering Mechanics Lab	PC	-	-	2	1
BME 225	Engineering Graphics Lab	PC	-	-	2	1
						25
Open Elective						
	Open Elective-1	OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioral Science – II Problem Solving & Creative Thinking	VA	1	-	-	1
	Foreign Language – II	VA	2	-	-	2
FLT 201	French					
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
TOTAL						32

THIRD SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BMT 301	Numerical Analysis & Programming	CC	3	-	-	3
BMT 302	Mechanics of Machine	CC	2	1	-	3
BMT 303	Manufacturing Processes	CC	2	1	-	3
BMT 304	Introduction to Automation	CC	3	-	-	3
BMT 305	Microprocessor-I	CC	2	-	-	2
Practical Courses						
BMT 321	Numerical Analysis & Programming Lab	PC	-	-	2	1
BMT 322	Mechanics of Machine lab	PC	-	-	2	1
BMT 323	Manufacturing Processes Lab	PC	-	-	2	1
BMT 324	Computer Aided Drafting & Design Lab	PC	-	-	2	1
BMT 325	Microprocessor-I Lab	PC	-	-	2	1
						19
DE Electives 1: Student has to select 1 course from the list of following DE electives						
BMT 307	Alternative Source of Energy	DE	3	-	-	3
BMT 308	Computer Graphics	DE	3	-	-	
BMT 309	Electronic Devices and Circuits	DE	3	-	-	
Open Elective						
	Open Elective-2	OE	3	-	-	3
Value Added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Behavioral Science-III, Interpersonal Communication	VA	1	-	-	1
	Foreign Language - III	VA	2	-	-	2
FLT 301	French					
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
TOTAL						29

FOURTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BMT 401	Applied Thermodynamics	CC	3	-	-	3
BMT 402	Fluid Mechanics	CC	2	1	-	3
BMT 403	Metrology	CC	3	-	-	3
BMT 404	Introduction to Smart Materials	CC	2	-	-	2
BMT 405	Microprocessor-II	CC	2	-	-	2
Practical Courses						
BMT 421	Thermodynamics Lab	PC	-	-	2	1
BMT 422	Fluid Mechanics Lab	PC	-	-	2	1
BMT 423	Metrology Lab	PC	-	-	2	1
BMT 424	Measurement and Control Lab	PC	-	-	2	1
BMT 425	Microprocessor System Lab	PC	-	-	2	1
						18
DE Electives 2: Student has to select 1 course from the list of following DE electives						
BMT 406	Materials Science and Metallurgy	DE	3	-	-	3
BMT 407	Quality Control & Quality Assurance	DE	3	-	-	
BMT 408	Artificial Intelligence & Robotics	DE	3	-	-	
Open Elective						
	Open Elective-3	OE	3	-	-	3
Value Added Courses						
BCS 401	Communication Skills - II	VA	1	-	-	1
BSS 404	Behavioral Science – IV, Relationship Management	VA	1	-	-	1
FLT 401	Foreign Language - IV	VA	2	-	-	2
FLG 401	French					
FLS 401	German					
FLC 401	Spanish					
	Chinese					
TOTAL						28

INDUSTRIAL TRAINING – I: 6-8 Weeks

FIFTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BMT 501	Machine Design – I	CC	3	-	-	3
BMT 502	Design of Mechatronics System	CC	3	-	-	3
BMT 503	Heat & Mass Transfer	CC	2	-	-	2
Practical Courses						
BMT 521	Heat & Mass Transfer Lab	CC	-	-	2	1
BMT 522	Design of Mechatronics System Lab	CC	-	-	2	1
BMT 523	Practical Training (Evaluation)	NTCC	-	-	-	6
						16
DE Electives 3: Student has to select 1 course from the list of following DE electives						
BMT 505	Advanced Manufacturing Process	DE	3	-	-	3
BMT 506	Metal Cutting & Tool Design	DE	3	-	-	
BMT 507	Management of Manufacturing Systems	DE	3	-	-	
BMT 508	Embedded System	DE	3	-	-	
Open Elective						
	Open Elective-4	OE	3	-	-	3
Value Added Courses						
BCS 501	Communication Skills - III	VA	1	-	-	1
BSS 504	Behavioral Science –V Group Dynamics & Team Building	VA	1	-	-	1
	Foreign Language – V	VA	2	-	-	2
FLT 501	French					
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
TOTAL						26

SIXTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BMT 601	Design of Mechatronics System	CC	3	0	-	3
BMT 602	Electrical Machines	CC	3	0	-	3
BMT 603	Sensors and Motion Control	CC	2	1	-	3
BMT 604	Automotive Engineering	CC	3	0	-	3
BMT 605	Machine Learning and Computer vision	CC	3	0	-	3
Practical Courses						
BMT 621	Design of Mechatronics System Lab	PC	-	-	2	1
BMT 622	Electrical Machines Lab	PC	-	-	2	1
BMT 623	Sensors and Motion Control Lab	PC	-	-	2	1
BMT 624	Automotive Engineering Lab	PC	-	-	2	1
						19
DE Electives 4: Student has to select 1 course from the list of following DE electives						
BMT 607	Aerial Robots	DE	3	-	-	3
BMT 608	Industrial Instrumentation	DE	3	-	-	
BMT 609	Industrial Electronics	DE	3	-	-	
Open Elective						
	Open Elective-5	OE	3	-	-	3
Value Added Courses						
BCS 601	Communication Skill – IV	VA	1	-	-	1
BSS 604	Behavioral Science – VI, Stress & Coping Strategies	VA	1	-	-	1
	Foreign Language – VI	VA	2	-	-	2
FLT 601	French					
FLG 601	German					
FLS 601	Spanish					
FLC 601	Chinese					
TOTAL						29

INDUSTRIAL TRAINING – II: 6-8 Weeks

SEVENTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BMT 701	Hydraulics and Pneumatics	CC	2	-	-	2
BMT 702	Computer Aided Manufacturing	CC	2	-	-	2
Practical Courses						
BMT 721	Hydraulics and Pneumatics Lab	PC	-	-	2	1
BMT 722	Computer Aided Manufacturing Lab	PC	-	-	2	1
BMT 723	Industrial Training (Evaluation)	NTCC	-	-	-	6
BMT 724	Seminar/Minor Project Stage- I	CC	-	-	-	3
						15
DE Electives 5: Student has to select 1 course from the list of following DE electives						
BMT 705	Automation in Industries	DE	3	-	-	3
BMT 706	Marketing Management	DE	3	-	-	
BMT 707	Electric and Hybrid Vehicles	DE	3	-	-	
BMT 708	Artificial Intelligence & Robotics	DE	3	-	-	
		DE	3	-	-	
Value Added Courses						
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Behavioral Science – VII, Individual Society & Nation	VA	1	-	-	1
	Foreign Language – VII	VA	2	-	-	2
FLT 701	French					
FLG 701	German					
FLS 701	Spanish					
FLC 701	Chinese					
TOTAL						22

EIGHTH SEMESTER

Code	Title	Category	L	T	P	Credit
Core Courses						
BMT 801	Robotic Process Automation	CC	3	-	-	3
Practical Courses						
BMT 811	Project Stage – II	CC	-	-	-	12
DE Electives 6: Student has to select 1 course from the list of following DE electives						
BMT 805	Fuel Cells and Applications	DE	3	-	-	3
BMT 806	Entrepreneurship Development	DE	3	-	-	
BMT 807	Flexible Manufacturing Systems	DE	3	-	-	
BMT 808	Fundamentals of Signal Processing	DE	3	-	-	
BMT 809	Automotive Sensors and Applications	DE	3	-	-	
TOTAL						18

Course Outcomes

Course Name	Course Code	L T P	Credit		Semester
APPLIED MATHEMATICS – I	AM 101	3 1 0	4		I

CLO 1	Investigate the basic concept about Calculus and differential equations.
CLO 2	Create an interest in finding the solution of problem, length, area, volume etc of the curve and application of Vector calculus.
CLO 3	Apply the basic concepts of Calculus to find Asymptotes, curvature, tangents & normal's, maxima & minima, partial derivatives and approximate calculation of a function.
CLO 4	Develop the formulation of the problem and differential equation, define its nature by using the fundamental of calculus and its applications.

Course Name	Course Code	L T P	Credit	Semester
APPLIED PHYSICS - I - FIELDS AND WAVES	AP 102	2 1 0	3	I

Course Name	Course Code	L T P	Credit	Semester

CLO 1	develop an understanding of the various concepts of simple harmonic motion for with and without damping.
CLO 2	solve simple problems on simple harmonic motion and related topics.
CLO 3	explain and interpret the wave nature of light.
CLO 4	solve simple problems on the applications of wave nature of light
CLO 5	define and understand vector calculus and electromagnetics.
CLO 6	solve numerical problems on vector calculus and electromagnetic

APPLIED CHEMISTRY	AC 203	2 1 0	3	I		
Course Name			Course Code	L T P	Credit	Semester
ELEMENTS OF MECHANICAL ENGINEERING			BME 205	2 1 0	3	I

CLO 1	to understand the characterization of materials.
CLO 2	to demonstrate the experimental techniques and methods of their area of specialization in Chemistry.
CLO 3	to use the evidence based comparative chemistry approach to explain the chemical synthesis and analysis.

Course Name	Course Code	L T P	Credit	Semester
INTRODUCTION TO COMPUTERS AND	BCS 104	2 1 0	3	I

CLO 1	[Identify, formulate and solve basic mechanical engineering problems]
CLO 2	[Analyse and critically evaluate design and basic components of machines]
CLO 3	[Select and implement knowledge of modern engineering tools and techniques in engineering practice]
CLO 4	[Demonstrate awareness of use of basic mechanical tools in day to day life]

PROGRAMMING IN C				
------------------	--	--	--	--

CLO 1	Attempting algorithmic solutions to problems
CLO 2	Designing and coding moderate sized programs running to the order of a few hundred lines of code
CLO 3	Reading, understanding, and modifying code written by others

CLO 1	Develop a practical approach for analysis of resistive circuits and solution of resistive circuits with independent sources
CLO 2	Able to apply two terminal element relationships for inductors and capacitors in an electrical network.
CLO 3	Capable of analysis of single phase AC circuits, the representation of alternating quantities and determining the power in these circuits.

Course Name	Course Code	L T P	Credit	Semester
BASICS OF ELECTRICAL AND ELECTRONICS ENGINEERING	BEE 105	2 1 0	3	I

CLO 4	To acquire the knowledge about the constructional concepts & working principles for the applications of DC
-------	--

	machines, AC machines & measuring instruments
CLO 5	Able to identify, formulate, and solve the electrical engineering problems

A. Course Learning Outcomes:

CLO 1	To gain practical knowledge by applying the experimental methods to correlate with the Physics theory.
CLO 2	To learn the usage of electrical and optical systems for various measurements.

Course Name	Course Code	L T P	Credit	Semester
APPLIED PHYSICS LAB - I	AP 122	0 0 2	1	I

CLO 3	Apply the analytical techniques and graphical analysis to the experimental data.
CLO 4	To develop intellectual communication skills and discuss the basic principles of scientific concepts in a group.

Course Name	Course Code	LTP	Credit	Semester
General English	BCS 101	1:0:0	1	1

CLO 1	Identify the basic elements of grammar required for good and effective communication.
CLO 2	Interpret and discuss key ideas of grammar, diction and communication.
CLO 3	Develop Creative & Literary Sensitivity in all communication.

CLO 4	Design and create texts for a variety of purposes and audiences, evaluating and assessing the effectiveness of grammatical aspects.

CLO 1	Solve system of linear equations; be familiar with the definition and properties of matrix; find the eigenvalues and eigenvectors of a square matrix.
CLO 2	Investigate the convergence of infinite series using different tests.

Course Name	Course Code	L T P	Credit	Semester
APPLIED MATHEMATICS – II	AM 201	3 1 0	4	II

CLO 3	Calculate the measure of central tendency, moments, skewness and kurtosis.
CLO 4	Develop knowledge of basic discrete and continuous distributions (Binomial, Poisson, Normal) and how to work with them.
CLO 5	Apply the method to use complex variable and complex valued functions and able to perform their differentiation and integration.

CLO 1	Define and understand space and time and the variations in other related fundamental quantities such as mass, velocity and force.
CLO 2	Solve simple problems relating to the above concepts.
CLO 3	Explain by extending the understanding as laid down in Quantum theory to other phenomenon as observed in sub-atomic Physics and

	also to solve simple problems in Quantum Theory
CLO 4	Appreciate and understand the various spectra as observed during electronic transitions
CLO 5	Understand the way nature has endowed properties to materials.

CLO 1	Understand object-oriented programming and advanced C++ concepts.
CLO 2	Improve your problem-solving skills
CLO 3	Goal: to make you a good programmer. Apply methods to analyse running time of essential data structures and estimate efficiency of the algorithms and implementations.

Course Name	Course Code	L T P	Credit	Semester
OBJECT ORIENTED PROGRAMMING USING C++	BCS 203	2 1 0	3	II

A. Course Learning Outcomes:

CLO 1	Able to analyse the force system and its effects.			
CLO 2	Explain the nature of forces acting upon a system.			
CLO 3	Evaluate the static and dynamic system's problem.			
Course Name	Course Code	L T P	Credit	Semester
ENGINEERING MECHANICS	BME 204	2 1 0	3	II

A. Course Learning Outcomes:

CLO 1	Describe the theory of scales, engineering curves, different Projection used in engineering drawing.
CLO 2	Draw the different engineering curves, maps and projection of planes and solid accurately.

Course Name	Course Code	L T P	Credit	Semester
ENGINEERING GRAPHICS	BME 205	1 0 0	3	II

CLO 3	Identify different geometrical shape and their application used in engineering application.
-------	---

A. Course Learning Outcomes:

CLO 1	Describe the theory of scales, engineering curves, different Projection used in engineering drawing.
-------	--

Course Name	Course Code	L T P	Credit	Semester
INTRODUCTION TO ENGINEERING AND DESIGN	BMT 205	1 0 0	3	II

CLO 2	Draw the different engineering curves, maps and projection of planes and solid accurately.
-------	--

CLO 3	Identify different geometrical shape and their application used in engineering application.
-------	---

Course Name	Course Code	L T P	Credit	Semester
DOMAIN WORKSHOP	BMT 206	1 0 0	1	II

A. Course Learning Outcomes:

CLO 1	To get acquainted with various basic technical skills.
CLO 2	To develop and enhance relevant technical skills required in the various engineering industries and workshops

Course Name	Course Code	L T P	Credit	Semester
APPLIED PHYSICS LAB - II	AP 222	0 0 2	1	II

A. Course Learning Outcomes:

CLO 1	To gain practical knowledge by applying the experimental methods to correlate with the Physics theory.
CLO 2	Apply the analytical techniques and graphical analysis to the experimental data.
CLO 3	To learn the usage of electrical and optical systems for various measurements.
CLO 4	To develop intellectual communication skills and discuss the basic principles of scientific concepts in a group.

Course Name	Course Code	LTP	Credit	Semester
General English	BCS 201	1:0:0	1	1

A. COURSE LEARNING OUTCOMES (CLO)

CLO 1	Participate in conversation and in small- and whole-group discussion
-------	--

CLO 2	Explore and use English as medium of communication in real life situation
CLO 3	Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
CLO 4	Identify features of a reading textbook and utilize them as needed
CLO 5	Prepare and deliver organized presentations in small groups and to whole class

Course Name	Course Code	L T P	Credit	Semester
NUMERICAL ANALYSIS AND PROGRAMMING	BMT 301	3 0 0	3	III
CLO 6	Apply sentence mechanics and master spelling of high frequency words			

A. Course Learning Outcomes:

CLO 1	Able to create numerical methods to obtain approximate solutions to mathematical problems.
--------------	--

Course Name	Course Code	L T P	Credit	Semester
MECHANICS OF MACHINES	BMT 302	2 1 0	3	III
CLO 2	Explain the numerical methods for various mathematical operations			
CLO 3	Evaluate the accuracy of common numerical methods.			

Course Name	Course Code	L T P	Credit	Semester
MANUFACTURING PROCESS	BMT 303	3 0 0	3	III

A. Course Learning Outcomes:

CLO 1	Understand rigid body motion, force, momentum expression in vectorial form
CLO 2	Analyze balancing problems in rotating and reciprocating machinery
CLO 3	Perform static and dynamic analysis to attain equilibrium in mechanisms and synthesize mechanisms for motion, path, and function generation
CLO 4	Analyze velocity and acceleration of different links of a given mechanism

Course Name	Course Code	L T P	Credit	Semester
Introduction to Automation	BMT 304	2 1 0	3	III

CLO 1	Illustrate the basic principles of foundry practices and special casting processes, their Advantages, Limitations and Applications
CLO 2	Explain and relate the basics of hot and cold working process, their advantages, Limitations and Applications
CLO 3	Demonstrate the various types of joining processes and select the appropriate one according to the application
CLO 4	Illustrate basic principles of working of machine tools viz. Lathe, Milling, Grinding, Drilling machines etc.
CLO 5	Distinguish between basic manufacturing processes

A. Course Learning Outcomes:

CLO 1	To introduce the importance of automation techniques manufacturing and process industries
CLO 2	To impart the role of PLC in industry automation
CLO 3	To expose to various control techniques employed in process automation

CLO 4	To develop automation system for manufacturing and process industries
-------	---

Course Name	Course Code	L T P	Credit	Semester
ALTERNATIVE SOURCES OF ENERGY	BMT 307	3 0 0	3	III

Course Learning Outcomes

CLO 1	Obtain basic development skills for microprocessor / microcontroller applications
CLO 2	To familiarize the Architecture of 8085 and 8086 microprocessor.
CLO 3	To classify the types and characteristics of buses in microprocessor.
CLO 4	To analyze the features, addressing mode and programming of Intel 8085 and 8086 microprocessor

Course Learning Outcomes

CLO 1	Conceptual knowledge of the technology, economics and regulation related issues associated with wind and alternative sources of energy
-------	--

Course Name	Course Code	L T P	Credit	Semester
MICROPROCESSOR-I	BMT 305	2 0 0	2	III

CLO 2	Ability to analyse the viability of wind and alternative energy projects
CLO 3	Capability to integrate various options and assess the business and policy environment regarding wind and alternative energy projects

Course Name	Course Code	L T P	Credit	Semester
NUMERICAL ANALYSIS & PROGRAMMING LAB	BMT 321	0 0 2	1	3

A. Course Learning Outcomes:

CLO 1	Use the bisection method, false position, Newton's, Secant method to estimate the number of iterations in the algorithm to achieve desired accuracy with the given tolerance;
CLO 2	Programming Skills: write numerical programs, such as C Language programs, to solve the above problems;
CLO 3	Use polynomial interpolations including the Lagrange polynomial, Newton's cotes ,cubic spline functions, for curve fitting method to evaluate the interpolations;

Course Name	Course Code	L T P	Credit	Semester
Mechanics of Machines Lab	BMT 322	0 0 2	1	3

A. Course Learning Outcomes:

CLO 1	Analyze the planar mechanisms for positional synthesis
CLO 2	Understand rigid body motion, force, momentum expression in vectorial form
CLO 3	Analyze balancing problems in rotating and reciprocating machinery.
CLO 4	Understand free and forced vibrations of single degree freedom systems

Course Name	Course Code	L T P	Credit	Semester
MANUFACTURING PROCESS LAB	BMT 323	0 0 2	1	3

A. Course Learning Outcomes:

CLO 1	apply some of the manufactures process directly in the industry for preparation of complicated jobs.
CLO 2	learn preparation of various jobs using various manufacturing process
CLO 3	implement similar features in preparation of jobs can be extended to implement in the preparation of complicated jobs

Course Name	Course Code	L T P	Credit	Semester
COMPUTER AIDED DRAFTING AND DESIGN LAB	BMT 324	0 0 2	1	3

A. Course Learning Outcomes:

CLO 1	Create, modify, analyze, and optimize any design
CLO 2	Improve quality of design and improve communication through documentation
CLO 3	Basics of manufacturing systems and current theories of manufacturing.

Course Name	Course Code	L T P	Credit	Semester
MICROPROCESSOR-I LAB	BMT 325	0 0 2	1	3

A. Course Learning Outcomes:

CLO 1	Learn importance of Microprocessors 8086 in designing real time applications
CLO 2	Develop interfacing to real world devices like LED displays, Keyboards, DAC/ADC, and various other devices.
CLO 3	Learn use of hardware & software tools

Course Name	Course Code	L T P	Credit	Semester
ALTERNATIVE SOURCES OF ENERGY	BMT 307	3 0 0	3	3

A. Course Learning Outcomes:

CLO 1	To Understand the need of energy conversion and the various methods of energy storage
CLO 2	Explain the conversion process and field applications of solar energy
CLO 3	Identify Winds energy as alternate form of energy and to know how it can be tapped .
CLO 4	To Understand the Geothermal &Tidal energy, its mechanism of production and its applications

CLO 5	Illustrate the concepts of Direct Energy Conversion systems & their applications.
-------	---

Course Name	Course Code	L T P	Credit	Semester
COMPUTER GRAPHICS	BMT 308	3 0 0	3	3

A. Course Learning Outcomes:

CLO 1	To understands the core concepts and mathematical foundations of computer graphics
CLO 2	To knows fundamental computer graphics algorithms and data structures
CLO 3	Understand overview of different modeling approaches and methods
CLO 4	To Understands light interaction with 3D scenes
CLO 5	Distinguish between basic manufacturing processes

Course Name	Course Code	L T P	Credit	Semester
ELECTRONICS DEVICES AND CIRCUITS	BMT 309	2 0 0	2	3

A. Course Learning Outcomes:

CLO 1	Know the characteristics of diodes and transistors
CLO 2	Design simple circuits and mini projects.
CLO 3	know the benefits of feedback in amplifier
CLO 4	Compare and classify oscillators

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 301	1:0:0	1	1

A. COURSE LEARNING OUTCOMES (CLO)

CLO 1	Inculcating creative thinking skills
-------	--------------------------------------

CLO 2	Construct and showcase their communication skills in a creative manner.
--------------	---

Course Name	Course Code	L T P	Credit	Semester
FLUID MECHANICS	BMT 402	2 1 0	3	IV

CLO 3	Comprehending and demonstrating ways of self-introduction
CLO 4	Outlining and illustrating presentation Skills

Course Learning Outcomes

CLO 1	To relate the zeroth, first and second laws to basic thermodynamic properties, like energy, temperature, and entropy, and to interactions like work and heat
CLO 2	To interpret entropy change and entropy production and the related terms isentropic and reversible
CLO 3	To derive property relations in an easy manner, and get used to the steam tables
CLO 4	Solve problems by applying the first and second law of thermodynamics

Course Name	Course Code	L T P	Credit	Semester
APPLIED THERMODYNAMICS	BMT 401	3 0 0	3	IV

A. Course Learning Outcomes

CLO 1	Define the different types of fluid and its properties
CLO 2	Understand and analyze the different types of flow
CLO 3	Solve simple problems relating to fluid

CLO 4	Define, analyze boundary layer and solve simple problems relating to the above concepts.
-------	--

Course Name	Course Code	L T P	Credit	Semester
-------------	-------------	-------	--------	----------

Course Learning Outcomes

CLO 1	Investigate – various national and international organizations from which we get many of our metrology references, resources, and standards
CLO 2	Create – mathematical models of fundamental physical phenomenon and apply them to predict the behaviour of engineering systems

Course Name	Course Code	L T P	Credit	Semester
METROLOGY	BMT 403	3 0 0	3	IV

CLO 3	Apply – dimensional analysis concepts correctly by looking up reference values for unit conversions; accurately perform associated mathematics, and present final values with the correct units/symbols
CLO 4	Develop – Ability to perform and conduct basic experiments and evaluate the results of the same

CLO 1	Understand the concepts of functional material, smart material and smart system
-------	---

Course Name	Course Code	L T P	Credit	Semester
INTRODUCTION TO SMART MATERIALS	BMT 404	2 0 0	2	IV

CLO 2	Master the techniques for the synthesis of functional and smart materials
CLO 3	Judge the appropriate application of smart materials with respect to the feasibility of their fabrication and implementation, and to the economic aspects
CLO 4	Innovatively apply the above knowledge to selected applications, particularly electronics, data storage, sensing and automation

MICROPROCESSOR-II	BMT 405	2 0 0	2	IV
--------------------------	---------	-------	---	----

Course Learning Outcomes

CLO 1	Describe basic concept of microcomputers.
CLO 2	Understand the memory system and interface design
CLO 3	To understand the working of transistor at high frequency

Course Learning Outcomes

CLO 1	To apply the concept of miller indices and types of materials .
CLO 2	To study properties and dislocation theory of materials

Course Name	Course Code	L T P	Credit	Semester
MATERIAL SCIENCE AND METALLURGY	BMT 406	3 0 0	3	IV
CLO 3	To study alloys and composite materials and also analyse equilibrium and non equilibrium diagram of alloy.			
CLO 4	Define application of various materials			

Course Learning Outcomes

Course Name	Course Code	L T P	Credit	Semester
QUALITY CONTROL & QUALITY ASSURANCE	BMT 407	3 0 0	3	IV
CLO 1	Explain different meaning of quality concepts and their different dimensions			
CLO 2	Describe and distinguish different stastical method and chart to optimize the given sample.			

CLO 3	Distinguish types of customers and also able to define different types of risk measured in quality and inspection process
CLO 4	Explain different assurance term such as quality audit, ISO 9000, six sigma

CLO 1	Identify problems where artificial intelligence techniques are applicable
-------	---

Course Name	Course Code	L T P	Credit	Semester
ARTIFICIAL INTELLIGENCE AND ROBOTICS	BMT 408	3 0 0	3	IV
CLO 2	Apply selected basic AI techniques; judge applicability of more advanced techniques			
CLO 3	Participate in the design of systems that act intelligently and learn from experience			

Course Name	Course Code	L T P	Credit	Semester
THERMODYNAMICS LAB	BMT 421	0 0 2	1	4

A. Course Learning Outcomes:

CLO 1	Ability to perform test on diesel/petrol engine
CLO 2	Ability to study performance characteristic of different boilers.
CLO 3	Ability to determine the properties of the fuels.

Course Name	Course Code	L T P	Credit	Semester
FLUID MECHANICS LAB	BMT 422	0 0 2	1	4

A. Course Learning Outcomes:

CLO 1	Ability to perform test on diesel/petrol engine
CLO 2	Ability to study performance characteristic of different boilers.
CLO 3	Ability to determine the properties of the fuels.

Course Name	Course Code	L T P	Credit	Semester
METROLOGY LAB	BMT 423	0 0 2	1	4

A. Course Learning Outcomes:

CLO 1	Demonstrate and use different length measuring instruments like vernier calipers and micrometers.
CLO 2	Explain different angle measuring instrument like universal bevel protractor, sine bar.
CLO 3	Formulate some unknown quantity or parameter of engineering interest.
CLO 4	Evaluate the surface quality of a given specimen which is important in all kind of manufacturing..

Course Name	Course Code	L T P	Credit	Semester
MEASUREMENT AND CONTROL LAB	BMT 424	0 0 2	1	4

A. Course Learning Outcomes:

CLO 1	Investigate the fundamental concepts of measurements.
CLO 2	Apply the knowledge of constructional details of measuring instruments for designing purpose and industrial production
CLO 3	Develop various analogue and digital measuring instruments for measuring AC and DC signals

Course Name	Course Code	L T P	Credit	Semester
MICROPROCESSOR-II LAB	BMT 425	0 0 2	1	4

A. Course Learning Outcomes:

CLO 1	To get exposure on microprocessors, design and coding knowledge on 80x86 family
CLO 2	To give the knowledge and practical exposure on connectivity and execute of interfacing devices with 8086 kit like LED displays, Keyboards, DAC/ADC, and various other devices

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 401	1:0:0	1	1

A. COURSE LEARNING OUTCOMES (CLO)

CLO 1	Identify steps to professional communication
CLO 2	Identify the key components of meeting, agendas and meeting minutes
CLO 3	Understand the key skills and behaviors required to facilitate a group discussion/presentation
CLO 4	Polish current affairs & rapport building

Course Name	Course Code	L T P	Credit	Semester
MACHINE DESIGN	BMT 501	3 0 0	3	5

A. Course Learning Outcomes:

CLO 1	To design of machine elements under torsion, bending, axial loads and a combination of these.
CLO 2	To understand the stresses in machine members due to various types of loads and failure of components according to theories of failures.
CLO 3	To design of various joints and fasteners for a given load to be transmitted and also study various types of joints used in power transmission.
CLO 4	To inculcate an ability to design belt drives and selection of belt, rope and chain drives.

Course Name	Course Code	L T P	Credit	Semester
DESIGN OF MECHATRONICS SYSTEM	BMT 502	3 0 0	3	5

A. Course Learning Outcomes:

CLO 1	Understand characteristics and the components of mechatronics systems and discuss recent trends in Mechatronics
CLO 2	Describe active & Passive electrical circuits
CLO 3	Understand the control system for mechatronic system.
CLO 4	Propose solutions for encountered problem

Course Name	Course Code	L T P	Credit	Semester
HEAT AND MASS TRANSFER	BMT 503	2 0 0	2	5

A. Course Learning Outcomes:

CLO 1	Understand basic concept of heat transfer: conduction, convection and radiation.
CLO 2	Explain the phenomena of boiling and condensation; apply LMTD and NTU methods of thermal analysis to different types of heat exchanger configurations.
CLO 3	Explain basic laws for Radiation and apply these principles to radiative heat transfer between different types of surfaces.
CLO 4	Apply diffusive and convective mass transfer equations and correlations to solve problems for different applications.

Course Name	Course Code	L T P	Credit	Semester
HEAT & MASS TRANSFER LAB	BMT 521	0 0 2	2	5

A. Course Learning Outcomes:

CLO 1	Perform steady state conduction experiments to estimate thermal conductivity of different materials for plane, cylindrical and spherical geometries
CLO 2	Estimate heat transfer coefficients in forced convection, free convection and determine effectiveness of heat exchangers
CLO 3	Perform radiation experiments:determine surface emissivity of a test plane and stefan-Boltzmann's constant and compare with theoretical values

Amity School of Engineering and Technology (ASET)

Course Name	Course Code	L T P	Credit	Semester
DESIGN OF MECHATRONICS SYSTEM LAB	BMT 522	0 0 2	2	5

A. Course Learning Outcomes:

CLO 1	To study various mechatronics drive system and its practical application .
CLO 2	To impart knowledge on virtual instrumentation and drive systems .
CLO 3	Optimize control systems for power drives

Course Name	Course Code	L T P	Credit	Semester
ADVANCED MANUFACTURING PROCESS	BMT 505	3 0 0	3	5

A. Course Learning Outcomes:

CLO 1	To learn kinematics and dynamics of robotic system.
CLO 2	Integrate mechanical and electrical hardware for a real prototype of robotic device.
CLO 3	To understand material management system and their protocol system.

Course Name	Course Code	L T P	Credit	Semester
Metal cutting and Tool design	BMT 506	3 0 0	3	5

A. Course Learning Outcomes:

CLO 1	Explain the ASA, ORS and NRS systems of tool geometry and derive their interrelationships
CLO 2	Develop the relations for chip reduction coefficient, shear angle, shear strain, forces, power, specific energy and temperatures associated with orthogonal cutting.
CLO 3	Develop shear angle relationships for natural and controlled contact cutting and stress strain relations in orthogonal cutting
CLO 4	Develop the relations for forces in multipoint machining and oblique cutting

Course Name	Course Code	L T P	Credit	Semester
MANAGEMENT OF MANUFACTURING SYSTEMS	BMT 507	3 0 0	3	5

A. Course Learning Outcomes:

CLO 1	Classify the materials and Understand the basic properties that characterize the behavior of materials.
CLO 2	Understand the type of loadings/environment that materials should withstand and Select appropriate type of material for specific application
CLO 3	Offer different approaches to modify structure/microstructure in order to get desired properties

Course Name	Course Code	L T P	Credit	Semester
EMBEDDED SYSTEM	BMT 508	3 0 0	3	5

A. Course Learning Outcomes:

CLO 1	able to acquire knowledge and understand fundamental embedded systems design paradigms, architectures, possibilities and challenges, both with respect to software and hardware.
CLO 2	Able to practically apply gained theoretical knowledge in order to design, analyze and implement embedded systems, e.g. integrating embedded subsystems and applications in building a fully functional autonomous robot.
CLO 3	Demonstrate a deeper understanding of the electronics and physical principles used for embedded biomedical measuring systems

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS501	1:0:0	1	1

A. COURSE LEARNING OUTCOMES (CLO)

CLO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CLO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CLO 3	Demonstrate proficiency in the use of written communication.
CLO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

Course Name	Course Code	L T P	Credit	Semester
MODELLING AND CONTROL OF MECHATRONICS SYSTEM	BMT 601	3 0 0	3	6

A. Course Learning Outcomes:

CLO 1	understand the evolving Mechatronics systems from their underlying physical principles and properties.
CLO 2	Develop an understanding of the purpose of control systems and their use
CLO 3	Be able to understand that a plant is given and a control system is to be designed to satisfy performance specifications

Course Name	Course Code	L T P	Credit	Semester
ELECTRICAL MACHINES	BMT 602	3 0 0	3	6

A. Course Learning Outcomes:

CLO 1	Analyze and apply the concept of steady state analysis and electrical transients in polyphase machines..
CLO 2	Examine the starting and running performance of single phase induction motor and revolving field theo
CLO 3	Evaluate the basic operation and performance of special machines and can select special machines for different purpose

Course Name	Course Code	L T P	Credit	Semester
SENSORS & MOTION CONTROL	BMT 603	3 0 0	3	6

A. Course Learning Outcomes:

CLO 1	Analyze advanced engineering problems in the fields of sensors, data acquisition and controls.
CLO 2	Apply advanced techniques and tools of sensing systems to solve multi-disciplinary challenges in industry and society
CLO 3	To exhibit independent, and collaborative research with strategic planning, while demonstrating the professional and ethical responsibilities of the engineering profession.

Course Name	Course Code	L T P	Credit	Semester
AUTOMOTIVE ENGINEERING	BMT 604	3 0 0	3	6

A. Course Learning Outcomes:

CLO 1	Explain the working of various parts like engine, transmission, clutch, brakes
CLO 2	Describe how the steering and the suspension systems operate
CLO 3	Develop a strong base for understanding future developments in the automobile industry
CLO 4	Understand the environmental implications of automobile emissions

Course Name	Course Code	L T P	Credit	Semester
MACHINE LEARNING AND COMPUTER VISION	BMT 606	3 0 0	3	6

A. Course Learning Outcomes:

CLO 1	Understand and master basic knowledge, theories and methods in image processing and computer vision.
CLO 2	Critically review and assess scientific literature in the field and apply theoretical knowledge to identify the novelty and practicality of proposed methods.
CLO 3	Design and develop practical and innovative image processing and computer vision applications or systems.
CLO 4	Identify, formulate and solve problems in image processing and computer vision.

Course Name	Course Code	L T P	Credit	Semester
AERIAL ROBOTS	BMT 607	3 0 0	3	6

A. Course Learning Outcomes:

CLO 1	To synthesize autopilot for the control of unmanned aerial vehicles
CLO 2	To derive a mathematical model for aerial robot dynamics and design a controllable rotorcraft aerial vehicle
CLO 3	To analyze the dynamics of active payload

Course Name	Course Code	L T P	Credit	Semester
INDUSTRIAL	BMT 608	3 0 0	3	6

INSTRUMENTATION				
------------------------	--	--	--	--

A. Course Learning Outcomes:

CLO 1	To illustrate the different methods for the measurement of length and angle
CLO 2	To explicate the construction and working of various industrial devices used to measure temperature, level, vibration, viscosity and humidity
CLO 3	To analyze, formulate and select suitable sensor for the given industrial applications

Course Name	Course Code	L T P	Credit	Semester
INDUSTRIAL ELECTRONICS	BMT 609	3 0 0	3	6

A. Course Learning Outcomes:

CLO 1	To Analyze the steady state and small signal AC response of simple electronic circuits containing diodes, transistors, and operational amplifiers
CLO 2	To Design and analyze circuits containing digital components and microprocessors.
CLO 3	To Analyze and evaluate performance parameters of AC and DC motors.

Course Name	Course Code	L T P	Credit	Semester
MODELLING AND CONTROL OF MECHATRONICS SYSTEM LAB	BMT 621	0 0 2	3	6

A. Course Learning Outcomes:

CLO 1	To Run mat lab programming for vehicle control system.
CLO 2	To analyze modeling of braking system through programming
CLO 3	To understand control system for servo and stepper motor .

Course Name	Course Code	L T P	Credit	Semester
ELECTRICAL MACHINES LAB	BMT 622	0 0 2	1	6

A. Course Learning Outcomes:

CLO 1	Understand 3-phase to 2-phase transformation using the Scott connection and determine the different losses of the transformers.
CLO 2	To Implement the speed control techniques for a separately excited DC motor

CLO 3	To Determine the performance characteristics of DC shunt and DC compound generators by conducting load tests.
CLO 4	Determine the performance of a single phase transformer by conducting Open Circuit (O.C) and Short Circuit (SC) tests and Sumpner's test.

Course Name	Course Code	L T P	Credit	Semester
MICROPROCESSOR-II LAB	BMT 623	0 0 2	1	6

A. Course Learning Outcomes:

CLO 1	Set up programming strategies and select proper mnemonics and run their program on the training boards.
CLO 2	Develop testing and experimental procedures on Microprocessor and Microcontroller analyze their operation under different cases.
CLO 3	Prepare professional quality textual and computational results, incorporating accepted data analysis and synthesis methods, simulation software, and word-processing tools.
CLO 4	Identify relevant information to supplement to the Microprocessor and Microcontroller course.

Course Name	Course Code	L T P	Credit	Semester
AUTOMOTIVE ENGINEERING LAB	BMT 624	0 0 2	1	6

A. Course Learning Outcomes:

CLO 1	Know the different types of automobiles, basic structure of automobile and their manufacturers in India. Understand the basic engine system working
CLO 2	Explain the steering and braking system employed in automobiles.
CLO 3	Explain the different suspension system of an automobile and selection of tyre for an automobile
CLO 4	Explain the Electrical and ignition system employed in Automobile

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS601	1:0:0	1	1

A. COURSE LEARNING OUTCOMES (CLO)

Course Name	Course Code	L T P	Credit	Semester
Automation in Industries	BMT-705	3 0 0	3	VII
CLO 1	Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self orientation.			
CLO 2	Showcase their leadership skills with effective team work.			
CLO 3	Outline the basic etiquettes in expressing their personality individually and in group.			

Course Name	Course Code	L T P	Credit	Semester
HYDRAULICS & PNEUMATICS	BMT-701	3 0 0	3	VII

A. Course Learning Outcomes:

CLO 1	Understand hazards of hydraulic and pneumatic circuits and be able to work safely.
CLO 2	Understand the concepts of fluid statics and dynamics as applied to commercial and industrial control
CLO 3	Recognize standard schematic symbols for common fluid power components.

A. Course Learning Outcomes:

CLO 1	It can cognize CNC turn bench's code systems and CNC turn bench's general structure.
CLO 2	Cognizing main parts of turnery, metal fillings' calculation and mathematical and computer processes of CNC turn bench's programming.
CLO 3	Cognize main concepts of turning(turn bench pen devices, cutting geomertry, swarf, warming, abrasion.etc.)
CLO 4	Makes preparations about CNC turn bench's programming and for all CNC turn benches' shared codes' programming.

Course Name	Course Code	L T P	Credit	Semester
MECHATRONICS SYSTEM APPLICATIONS	BMT-708	3 0 0	3	VII

A. Course Learning Outcomes:

CLO 1	verify automation / control systems using good design practice;
CLO 2	design, install and maintain automation and control systems;
CLO 3	work at a high level in industry with automation and control systems;
CLO 4	employ high-level PLC control systems in the computer integration of a manufacturing process;
CLO 5	implement the skills required for automation, control and monitoring of industrial processes;

Course Name	Course Code	L T P	Credit	Semester
-------------	-------------	-------	--------	----------

A. Course Learning Outcomes:

Course Name	Course Code	L T P	Credit	Semester
Computer Aided Manufacturing	BMT-702	3 0 0	3	VII

CLO 1	Analyze various electric drives suitable for hybrid electric vehicles.
CLO 2	Discuss different energy storage technologies used for hybrid electric vehicles and their control.
CLO 3	Demonstrate different configurations of electric vehicles and its components, hybrid vehicle configuration by different techniques, sizing of components and design optimization and energy management.
CLO 4	Explain plug – in hybrid electric vehicle architecture, design and component sizing and the power electronics devices used in hybrid electric vehicles.
CLO 5	Explain the basics of electric and hybrid electric vehicles, their architecture, technologies and fundamentals.

Electric & Hybrid Vehicles	BMT-707	3 0 1	3	VII
----------------------------	---------	-------	---	-----

Course Learning Outcomes:

CLO 1	Identification of key elements of mechatronics system and its representation in terms of block diagram
CLO 2	Understanding the concept of signal processing and use of interfacing systems such as ADC, DAC, digital I/O
CLO 3	Interfacing of Sensors, Actuators using appropriate DAQ micro-controller
CLO 4	Time and Frequency domain analysis of system model (for control application)
CLO 5	-PID control implementation on real time systems

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS701	1:0:0	1	1

A. COURSE LEARNING OUTCOMES (CLO)

CLO 1	Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
CLO 2	Create right selection of words and ideas while choosing the appropriate channel of formal communication
CLO 3	Apply acquired knowledge with the appropriate selection of channel of formal communication.
CLO 4	Develop and empower self with the ease of using appropriate medium of communication.

ROBOTIC PROCESS AUTOMATION	BMT-801	3 0 0	3	VIII
---------------------------------------	---------	-------	---	------

Course Learning Outcomes:

Course Name	Course Code	L T P	Credit	Semester
FUEL CELLS AND APPLICATIONS	BMT-805	3 0 0	3	VIII
CLO 1	Describe RPA, where it can be applied and how it's implemented.			
CLO 2	Describe the different types of variables, Control Flow and data manipulation techniques			
CLO 3	Identify and understand Image, Text and Data Tables Automation.			
CLO 4	Describe how to handle the User Events and various types of Exceptions and strategies.			
CLO 5	Understand the Deployment of the Robot and to maintain the connection.			

A. Course Learning Outcomes:

CLO 1	Know the applications of fuel cells in various domains
CLO 2	Distinguish various types of fuel cells and their functionalities

A. Course Learning Outcomes:

CLO 1	Apply new ideas, methods and ways of thinking
CLO 2	Engage with a range of stakeholders to deliver creative and sustainable solutions to specific problems

CLO 3	Work effectively with colleagues with diverse skills, experiences and be able to critically reflect on own practice
CLO 4	Consider the ethical and environmental issues and responsibilities which managers take into account when making decisions

Course Name	Course Code	L T P	Credit	Semester
Flexible Manufacturing system	BMT-807	3 0 0	3	VIII

CLO 1	Apply the concepts of PPC and GT to the development of FMS.
CLO 2	Discuss the planning and scheduling methods used in manufacturing systems.
CLO 3	Identify various workstations, system support equipments.
CLO 4	Identify hardware and software components of FMS.
CLO 5	Summarize the concepts of modern manufacturing such as JIT, supply chain management and lean manufacturing etc.

Course Name	Course Code	L T P	Credit	Semester

A. Course Learning Outcomes:-

CLO 1	Explain the importance of signal processing in computing, electronics, control engineering and telecommunications
CLO 2	State and explain the Nyquist-Shannon sampling theorem

Course Name	Course Code	L T P	Credit	Semester
ENTREPRENEURSHIP DEVELOPMENT	BMT-807	3 0 0	3	VIII

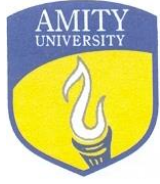
CLO 3	Analyze signals using their spectrum
CLO 4	Analyze systems using their transfer function and frequency response
CLO 5	Explain the equivalence between time continuous and time discrete systems

FUNDAMENTALS OF SIGNAL PROCESSING	BMT-808	3 0 0	3	VIII
--	---------	-------	---	------

Course Name	Course Code	L T P	Credit	Semester
AUTOMOTIVE SENSORS AND APPLICATIONS	BMT-809	3 0 0	3	VIII

Course Learning Outcomes:-

CLO 1	To provide in depth knowledge in physical principles applied in sensing, measurement and a comprehensive understanding on how measurement systems are designed, calibrated, characterised, and analysed.
CLO 2	To introduce the students to sources and detectors of various Optical sensing mechanisms and provide in-depth understanding of the principle of measurement, and theory of instruments and sensors for measuring velocity and acceleration
CLO 3	To give a fundamental knowledge on the basic laws and phenomena on which operation of sensor transformation of energy is based.
CLO 4	To impart a reasonable level of competence in the design, construction, and execution of mechanical measurements strain, force, torque and pressure



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

Master of Technology (M.Tech.)

Programme Outcome (PO)

PO1- To acquire skills in modern techniques, methodologies, and tools to be innovative and creative.

PO2- To solve organizational problems arising from legal and technology framework and products, and exhibit professionalism, and ethical attitude of an entrepreneur.

PO3- To identify, evaluate and assess risks and payoffs in monetary and non-monetary terms and to work with multidisciplinary subjects in industries and research.

PO4- To communicate effectively in written and verbal forms.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING & TECHNOLOGY
(ASET)**

**Master of Technology
(Computer Science & Engineering)**

Programme Code: MTC

12009

Duration – 2 Years Full Time

Programme Structure

Program Specific Outcomes (PSOs)

1. Students will be able to demonstrate the role of Computer Science in the following core knowledge areas
 - a. Algorithms, Data Structures, and Databases
 - b. Programming Languages and Compilers
 - c. Software Engineering and Development
 - d. Computer Hardware and Architecture
 - e. Data Communication and Computer Networks
2. Students will be able to generate optimized solutions by formulating and implementing analytical tools for upcoming issues in the field of computer science and engineering.
3. Students will be able to apply knowledge of mathematical, scientific, and computer science to evaluate, analyze, synthesize, model, and integrate technologies to develop a new computer systems for applied engineering systems.
4. Students will be able demonstrate independent learning and scholarship by adopting research pursuits.
5. Students will recognize the role of technological advances impacting society and the social, legal, ethical, cultural and communicative implications of computer technology and its usage.

Program Structure

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) Master of Technology - (Computer Science & Engineering)

FIRST SEMESTER

Subject Code	Course	Category	L	T	P/FW	Credit Units
MTC-101	Data Structure & Algorithm Design	CC	2	1	-	3
MTC-102	Object Oriented Software Engineering	CC	2	1	-	3
MTC-103	Operating System and Unix	CC	2	1	-	3
MTC-123	Operating System and Unix Lab	CC	-	-	2	1
MTC-160	Seminar I (critical review of a research publication)	CC	-	-	-	3
MTC-161	Seminar II (critical review of a research publication)	CC	-	-	-	3
Domain Elective-I : Choose any one from the following courses						
MTC-104	Software Project Planning & Management	DE	2	1	-	3
MTC-105	Advance DBMS	DE	2	1	-	3
Value Added Courses						
BCS-111	Communication Skills – I	VA	1	-	-	1
BSS-111	Behavioural Science –I	VA	1	-	-	1
FLF-111 FLG-111 FLS-111 FLC-111	Foreign Language – I French German Spanish Chinese	VA	2	-	-	2
	Total					23

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
MTC-201	Compiler Design	CC	2	1	-	3
MTC-202	Enterprise Java Application using J2EE	CC	2	1	-	3
MTC-203	Advanced Computer Networks	CC	2	1	-	3
MTC-204	Soft Computing	CC	2	1	-	3
MTC-221	Compiler Design Lab	CC	-	-	2	1
MTC-222	Enterprise Java Application using J2EE Lab	CC	-	-	2	1
MTC-223	Advanced Computer Networks Lab	CC	-	-	2	1
MTC-260	Minor Project	CC	-	-	-	5
Domain Elective - II : Choose any one from the following courses						
MTC-205	Cloud Computing	DE	2	1	-	3
MTC-206	Advanced Computer Organization	DE	2	1	-	3
MTC-207	Computer Oriented Operational Research	DE	2	1	-	3
OPEN ELECTIVE						
	OPEN ELECTIVE-I	OE	3	-	-	3
VALUE ADDED						
BCS-211	Communication Skills – II	VA	1	-	-	1
BSS-211	Behavioural Science –II	VA	1	-	-	1
FLF-211	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
FLG-211						
FLS-211						
FLC-211						
	Total					30

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
MTC-301	Data Warehousing & Data Mining	CC	2	1	-	3
MTC-302	Network Security & Management	CC	2	1	-	3
MTC-321	Data Warehousing & Data Mining Lab	CC	-	-	2	1
MTC-360	Dissertation (Evaluation of Plan and Critical Literature Review)	CC	-	-	-	3
Domain Elective : Choose any one from the following courses (Lab Courses to be clubbed with their respective theory courses)						
MTC-303	Pattern Recognition & Image Processing	DE	2	1	-	3
MTC-322	Pattern Recognition & Image Processing Lab	DE	-	-	2	1
MTC-304	ASP. NET	DE	2	1	-	3
MTC-323	ASP. NET Lab	DE	-	-	2	1
MTC-305	Real Time Operating System	DE	3	1	-	4
MTC-306	Mobile Computing	DE	3	1	-	4
MTC-307	Ad Hoc & Wireless Sensor Network	DE	3	1	-	4
OPEN ELECTIVE						
	OPEN ELECTIVE-II	OE	3	-	-	3
VALUE ADDED						
BCS-311	Communication Skills – III	VA	1	-	-	1
BSS-311	Behavioural Science –III	VA	1	-	-	1
FLF-311	Foreign Language – III	VA	2	-	-	2
FLG-311	French					
FLS-311	German					
FLC-311	Spanish					
	Chinese					
	Total					21

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
MTC-455	Dissertation	CC	-	-	-	30
	TOTAL					30

COURSE OUTCOMES

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) Master of Technology - (Computer Science & Engineering)

DATA STRUCTURES AND ALGORITHM DESIGN

Course Code: MTC 101

CreditUnits: 03

Course learning outcomes (CLO)

It is expected that by the end of the course, students will be comfortable in –

1. Explain the need for efficiency in data structures and algorithms.
2. Apply methods to analyse running time of essential data structures and estimate efficiency of the algorithms and implementations.
3. Apply the concept of abstract data type to represent and implement heterogeneous data structures.
4. Write programs using array-based lists, linked lists & skip lists.

OBJECT ORIENTED SOFTWARE ENGINEERING

Course Code:

MTC 102

Credit Units: 03

- To learn and understand various O-O concepts along with their applicability contexts.
- Given a problem, identify domain objects, their properties, and relationships among them.
- How to identify and model/represent domain constraints on the objects and (or) on their relationships
- Develop design solutions for problems on various O-O concepts
- To learn various modeling techniques to model different perspectives of object-oriented software design (UML)
- To learn software development life cycle for Object-Oriented solutions for Real-World Problems
- To learn O-O design solutions for the recurring problems

OPERATING SYSTEM AND UNIX

Course Code: MTC 103

CreditUnits: 03

Students will be able to identify the role of Operating System. To understand the design of control unit.

- CLO1:** Students will be able to analyse and understanding CPU Scheduling, Synchronization, Deadlock Handling and Comparing CPU Scheduling Algorithms. Solve Deadlock Detection Problems.
- CLO2:** Students will be able to describe the role of paging, segmentation and virtual memory in operating systems.
- CLO3:** Students will be able to understand description of protection and security and also the Comparison of UNIX and Windows based OS.
- CLO4:** Students will be able to understand the concept of Defining I/O systems, Device Management Policies and Secondary Storage Structure and Evaluation of various Disk Scheduling Algorithms.

SOFTWARE PROJECT PLANNING AND MANAGEMENT

Course Code: MTC 104

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Apply their knowledge of mathematics and computer science to the modelling, analysis, and measurement of software artefacts.
2. Analyse, specify and document software requirements for a software system.
3. Develop alternative design solutions to a given problem and recommend the best one within limitations of cost, time, knowledge, existing systems, and organizations.
4. Implement a given software design using development practices

ADVANCE DBMS

Course Code: MTC 105

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Create and successfully apply logical database design principles, including E-R diagrams and database normalization.
2. Define query-optimizing transformations and actual evaluation of queries
3. Identify the concepts of Object Oriented and Object Relational Databases
4. Recognize the need of Distributed DBMS and define transaction management, concurrency control, query optimization in distributed database environment.
5. Define other contemporary database models
6. Identify and correlate the ADBMS concepts with real world applications like ORACLE

COMMUNICATION SKILLS – I

Course Code: BCS 111

Credit Units: 01

At the successful completion of this course you (the student) should be able to:

1. Participate in conversation and in small- and whole-group discussion
2. Explore and use English as medium of communication in real life situation
3. Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
4. Identify features of a reading textbook and utilize them as needed
5. Prepare and deliver organized presentations in small groups and to whole class
6. Apply sentence mechanics and master spelling of high frequency words

BEHAVIOURAL SCIENCE - I (SELF-DEVELOPMENT AND INTERPERSONAL SKILLS)

Course Code: BSS 111

Credit Units: 01

At the successful completion of this course you (the student) should be able to:

1. Demonstrate awareness of self and the process of self-exploration.
2. Demonstrate knowledge of strategies for developing a healthy self-esteem.
3. Recognize the importance of attitudes and its effect on personality.
4. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FRENCH - I

Course Code: FLF 111

Credit Units: 02

At the successful completion of this course the students would be able to:

Perform communicative tasks(oral and written)like:

1. Identify and express in French vocabulary and grammatical norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

GERMAN - I

Course Code: FLG 111

Credit Units: 02

At the successful completion of this course you should be able to:

1. Identify and express in German vocabulary and grammatical norms

2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in German **Narrate** clearly ideas, themes in simple standard German

SPANISH – I

Course Code: FLS 111

Credit Units: 02

1. After successful completion of the course, students will be able to perform verbally and in writing certain social functions. Students will develop five language skills: reading, writing, listening, speaking & interacting with the Spanish & the Spanish speakers whom they come across in their daily or professional life in respect of
2. Students will be able to perform communicative tasks (oral and written) like:
 3. -Self introduction
 4. -Possessions.
 5. -Family/friend description with verbs like SER/ESTAR/TENER/HAY
 6. -Regular AR/ER/IR ending verbs conjugations
 7. -Interrogative words

CHINESE – I

Course Code: FLC 111

Credit Units: 02

At the successful completion of this course, you will be able to:

1. Read, write and speak approx. 50 new Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of day today conversation related to greeting, farewell and personal information like name, age, residence, family etc.
3. Write Chinese characters, simple sentence and a paragraph on Self Introduction.
4. Communicate with Chinese speaking people using words, phrases and sentences related to greeting, farewell and personal information like name, age, residence family etc.

COMPILER DESIGN

Course Code: MTC 201

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Describe the theory and practices involved in compilation process, in particular, the lexical analysis, parsing code generation and optimization phases of compilation.
2. Understand the issues related to the designing of a compiler for a programming language.

3. To study the implementation of various compiler design issues by undertaking various case studies.

ENTERPRISE JAVA APPLICATIONS USING J2EE

Course Code: MTC 202 **Credit Units: 03**

Course learning outcomes (CLO)

At the successful completion of this course the student should be able to:

1. Recognize the advanced concept of object oriented programming for java based applications.
2. Identify the utility of java class libraries and API.
3. Describe the concept of Swings, Servlets, JSP, Beans, J2EE, JDBC and ODBC with hands on coding experience.
4. Apply hands on real time applications development using standard tools.

ADVANCED COMPUTER NETWORKS

Course Code: MTC 203 **Credit Units: 03**

At the successful completion of this course you (the student) should be able to:

1. Investigate various advanced LAN, MAN, WAN and wireless protocols used in computer network
2. Develop new Algorithms to solve complex problems associated with computer network and Network Security.
3. Create, Design and Maintain networks based on gained knowledge.

SOFT COMPUTING

Course Code: MTC 204 **CreditUnits: 03**

At the successful completion of this course you (the student) should be able to:

1. Investigate various artificial intelligence algorithms for automation.
2. Compare working of neural network, Fuzzy logic and Genetic Algorithms.
3. Develop various Algorithms to solve complex problems using soft computing.

CLOUD COMPUTING

Course Code: MTC 205

Credit Units: 03

At the successful completion of this course you (the student) should be able to:

1. Analyze the trade-offs between deploying applications in the cloud and over the local infrastructure.
2. Compare the advantages and disadvantages of various cloud computing platforms.
3. Deploy applications over commercial cloud computing infrastructures such as Amazon Web Services, Windows Azure, and Google AppEngine.
4. Analyze the performance, scalability, and availability of the underlying cloud technologies and software.
5. Identify security and privacy issues in cloud computing.
6. Solve a real-world problem using cloud computing through group collaboration.

ADVANCED COMPUTER ORGANIZATION

Course Code:

MTC 206

Credit Units: 03

7. 1. Understand the Concept of Parallel Processing and its applications. 2. Implement the Hardware for Arithmetic Operations.
3. Analyze the performance of different scalar Computers.
4. Develop the Pipelining Concept for a given set of Instructions.
8. 5. Distinguish the performance of pipelining and non pipelining environment in a processor.

COMPUTER ORIENTED OPERATIONAL RESEARCH

Course Code:

MTC 207

Credit Units: 03

- 1 .To impart knowledge in concepts and tools of Operations Research
2. To understand mathematical models used in Operations Research
3. To apply these techniques constructively to make effective business decisions

COMMUNICATION SKILLS - II

Course Code: BCS 211

Credit Units: 01

At the successful completion of this course you (the student) should be able to:

1. Identify essential components of language

2. Make inferences and predictions about spoken discourse
3. Develop Creative & Literary Sensitivity in global situation
4. Identify features of a reading textbook and utilize them as needed

FRENCH – II

Course Code: FLF 211

Credit Units: 02

At the successful completion of this course you should be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

GERMAN – II

Course Code: FLG 211

Credit Units: 02

At the successful completion of this course you should be able to:

1. **Identify** and **express** in German vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in German
4. **Narrate** clearly ideas, themes in simple standard German

SPANISH – II

Course Code: FLS 211

Credit Units: 02

At the successful completion of this course you should be able to:

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish
4. **Narrate** clearly ideas, themes in simple standard Spanish

CHINESE – II

Course Code: FLC 211

Credit Units: 02

At the successful completion of this course you should be able to:

1. **Read, write and speak approx. 100** New Chinese words and
understand basic grammar points.

2. **Interpret** words, phrases and sentences of day today conversation related to hobbies and abilities, gratitude, apology and welcome, time, weather and directions
3. **Write** Chinese characters, simple sentence and a paragraph on simple topic like 'Self Introduction' and dialogue writing on "Conversation between two friends exchanging Personnel Information".
4. **Communicate** with Chinese speaking people using words, phrases and sentences related to hobbies and abilities. Express gratitude, apology and welcome.

DATA WAREHOUSING AND DATA MINING

Course Code:

MTC 301

Credit Units: 03

1. Understand what data mining is and how data mining can be employed and applied to solve real problems.
2. Recognize whether a data mining solution is feasible alternative for a specific problem.
3. Apply basic statistical to evaluate the results of data mining models.
4. Develop a comprehensive understanding of how several data mining techniques can be applied to solve problems.

NETWORK SECURITY AND MANAGEMENT

Course Code:

MTC 302

Credit Units: 03

- CLO5:** Students will be able to understand the concept of different cryptography techniques transposition and substitution methods.
- CLO6:** Students will be able to analyse the DES, IDEA, Feistel Cipher cryptographic algorithm.
- CLO7:** Students will be able to Understand and analyse public key Cryptosystem using RSA and learn various techniques used for the distribution of key in public key cryptosystem.
- CLO8:** Students will be able to apply and evaluate Message authentication and hash function using MD5 and SHA and learn the concept of digital signature.
- CLO9:** Students will be able to understand the concept of IP security and password message protocols.

PATTERN RECOGNITION AND IMAGE PROCESSING

Course Code:

MTC 303

Credit Units: 03

To give the Student:-

- • Understand the basic principles and methods of digital image processing,
- • Be able to formulate solutions to general image processing problems,

- • Have a comprehensive background in image filtering,
- • Be prepared for research in image processing.

ASP .NET

Course Code: MTC 304

CreditUnits: 03

At the successful completion of this course you should be able to:

1. Define object oriented terminology and C# programming concepts
2. Illustrate the role of inheritance, packages and interface to solve programming problems
3. Apply Exception handling for avoiding the run time errors
4. Apply the concept of multithreading to increase the execution speed of an application
5. Differentiate between C# and java programming language
6. Create projects using ASP.NET programming.

REAL TIME OPERATING SYSTEM

Course Code: MTC 305

CreditUnits: 04

On completion of this course, the students will be able to

1. understand concepts of Real-Time systems and modeling
2. recognize the characteristics of a real-time system
3. understand and develop document on an architectural design of a real-time system
4. develop and document Task scheduling, resource management, real-time operating systems and fault tolerant applications of Real-Time Systems.

MOBILE COMPUTING

Course Code: MTC 306

CreditUnits: 04

At the successful completion of this course you (the student) should be able to:

1. Investigate various advanced wireless protocols for mobile communication.
2. Compare working of wired network and wireless networks.
3. Develop networking techniques to solve complex problems.
4. Create and maintain network used in wireless condition.

AD HOC AND WIRELESS SENSOR NETWORK

Course Code: MTC 307

CreditUnits: 04

1. To understand the basics of Ad-hoc & Sensor Networks.
2. To learn various fundamental and emerging protocols of all layers.

3. To study about the issues pertaining to major obstacles in establishment and efficient management of Ad-hoc and sensor networks.
4. To understand the nature and applications of Ad-hoc and sensor networks.
5. To understand various security practices and protocols of Ad-hoc and Sensor Networks.

COMMUNICATION SKILLS - III

Course Code: BCS 311

CreditUnits: 01

At the successful completion of this course the student should be able to:

1. Inculcating creative thinking skills
2. Construct and showcase their communication skills in a creative manner.
3. Comprehending and demonstrating ways of self introduction
4. Outlining and illustrating presentation Skills

BEHAVIOURAL SCIENCE - III (LEADING THROUGH TEAMS)

Course Code: BSS 311

CreditUnits: 01

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge of strategies for developing a healthy interpersonal communication
2. Recognize the importance of transactional analysis, script analysis
3. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competencenecessary for conflict resolution and impression management.
4. Demonstrate knowledge of strategies for developing a healthy interpersonal relationship.

FRENCH - III

Course Code: FLF 311

CreditUnits: 02

At the successful completion of this course you should be able to:

1. **Identify** and express in French vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate comprehension** of nuance between script and sound in French
4. **Narrate clearly** ideas, themes in simple standard French

GERMAN - III

Course Code: FLG 311

CreditUnits: 02

After successful completion of the course, the students will be able perform orally and in writing certain social functions:

1. Students will be able to ask and tell time.
2. Students will be able to frame sentences using Separable verb.
3. Student will be able to write and speak sentences using modal verb.
4. Students will be able to frame sentences and speak using was/were/had.

SPANISH – III

Course Code: FLS 311

CreditUnits: 02

After successful completion of the course, students will be able to perform orally and in writing certain social functions:

Students will be able to perform communicative tasks (oral and written) with proficiencies in,

- a) Introduction of stem changing irregular verbs
- b) Introduction of prepositions (Cerca de/ lejos de/ encima de etc.)
- c) Present continuous tense (**Estar+ gerundio**)
- d) Introduction of third person verbs Gustar/Parecer/Encantar/ Doler (to like/ to seem like/ to enchant/ to hurt.) etc
- e) Interrogatives – How much/ How many
- f) Introduction of irregular verbs.
- g) Immediate future plans (Ir a + verbo)



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING & TECHNOLOGY
(ASET)**

M. Tech. (Electronics & Communication Engineering)

Program Code: MTE

12153

Duration – 2 Years Full Time

Programme Structure

Credit Summary

Semester	Core course (CC)	Domain Electives (DE)	Values Added Course (VAC)	Open Electives	NTCC	Total
I	19	4	4	3	2	32
II	20	4	4	3	2	33
III	19	3	4	3	---	29
IV	30	-	-	-	---	30
Total	88	11	12	9	4	124

Program Specific Outcomes (PSOs)

PSO.1-An ability to apply and understand the knowledge of mathematics, science and engineering.

PL0.2-Knowledge and understanding of mathematics through differential and integral calculus, and basic sciences and engineering topics (including computing science) necessary to analyze and design complex electrical and electronic devices, software, and systems containing embedded hardware and software components and their design.

PSO.3-Develop and deploy engineering/technological solutions using latest techniques & tools/CAD (VHDL, MATLAB, Or-cad, VLSI, Antenna Design) imbuing concern for eco-system, and an attitude to serve society & humanity at large.

PSO.4-Graduates will successfully engage themselves in practice of multidisciplinary engineering or relevant fields; They will pursue wide-spectrum careers appropriately as technologists, innovators, consultants, managers & entrepreneurs and will advance in their profession.

PSO.5-An ability to design and conduct experiments as well as to analyze and interpret data.

PSO.6-An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, health and safety.

PSO7-An ability to identify, formulate, and solve engineering problems.

PSO8-Knowledge of probability and statistics, including applications appropriate to the electrical engineering (Electronics, Communication, Processing and Embedded technology)

Program Structure

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) M. Tech. (Electronics & Communication Engineering)

<u>Semester I</u>						
Code	Course	Category	L	T	P	Credits
MTE 101	Advanced Digital Communication	CC	3	1		4
MTE 102	Advanced instrumentation and System Design	CC	3	1		4
MTE 103	Stochastic Methods	CC	3	1		4
MTE 123	Stochastic Lab	CC			2	1
MTE 121	Advanced Digital Communication lab	CC			2	1
MTE 122	Advanced instrumentation and System Design Lab	CC			2	1
MTE 160	Project -I	CC				4
DE Electives: Student has to select 1 course from the list of following DE electives						
MTE 104	Satellite Communication	DE	3	1		4
MTE 105	Advanced Optical Communication	DE	3	1		4
Open Elective						
	OPEN ELECTIVE – I	OE	3			3
Value Added						
MTE 141	Communication Skills – I	VA	1			1
MTE 143	Behavioural Science – I, (Understanding Self for Effectiveness – I)	VA	1			1
	Foreign Language – I	VA	2			2
FLT 144	French					
FLG 145	German					
FLS 146	Spanish					
FLC 148	Chinese					
Non-Teaching Credit Course (NTCC)						
AND001	Anandam-I	NTCC	-	-	-	2
Total						32

Semester II						
Code	Course	Category	L	T	P	Credits
MTE 201	LP VLSI	CC	3	1		4
MTE 202	High Level System Design & Modeling	CC	3	1		4
MTE 203	Advanced Microwave Engineering	CC	3	1		4
MTE 221	LP VLSI Lab	CC			4	2
MTE 260	Project – II	CC				4
MTE 222	High Level System Design & Modeling lab	CC			2	1
MTE 223	Advanced Microwave Engineering lab	CC			2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
MTE 204	Advanced Wireless Sensor Network	DE	3	1		4
MTE 205	MEMS & IC Integration	DE	3	1		4
Open Elective						
	OPEN ELECTIVE – II	OE	3			3
Value Added						
MTE 241	Communication Skills – II	VA	1			1
MTE 243	Behavioural Science – II	VA	1			1
	Foreign Language – II					
FLT 244	French	VA	2			2
FLG 245	German					
FLS 246	Spanish					
FLC 248	Chinese					
Non-Teaching Credit Course (NTCC)						
AND002	Anandan-II	NTCC	-	-	2	2
	TOTAL					33

Semester III						
Code	Course	Category	L	T	P	Credits
MTE 301	Digital Signal Processing	CC	3	1		4
MTE 302	Antenna Theory & Design	CC	3	1		4
MTE 303	Image Processing	CC	3	1		4
MTE 361	Project - III	CC				5
MTE 321	DSP Lab	CC			2	1
MTE 322	Image Processing Lab	CC			2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
MTE 304	Optimization Techniques	DE	2	1		3
MTE 305	VLSI Sub System Design	DE	2	1		3
Open Elective						
	OPEN ELECTIVE – III	OE	3			3
Value Added						
MTS 341	Communication Skills – III	VA	1			1
MTS 343	Behavioural Science – III	VA	1			1
	Foreign Language – III					
FLT 344	French	VA	2			2
FLG 345	German					
FLS 346	Spanish					
FLC 348	Chinese					
Total						29

Semester IV						
Code	Course	Category	L	T	P	Credits
MTE 450	Dissertation	CC				30
Total						

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work

Total Credit- 124

COURSE OUTCOMES

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) M. Tech. (Electronics & Communication Engineering)

APPLIED MATHEMATICS - I

Course Name	Course Code	LTP	Credit	Semester
Advanced Digital Communication	MTE 101	4:0:0	4	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information of digital base-band data transmission through a band limited channel
CLO 2	Acquire concept of binary and M-ary band-pass modulation schemes
CLO 3	Demonstrate the advanced application of advanced channel coding techniques to minimize the probability of error
CLO 4	To acquaint with the emerging trends in digital communication field.

Course Name	Course Code	LTP	Credit	Semester
Advanced Instrumentation and System Design	MTE102	4:0:0	4	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on industrial instrumentation and their use in different industries
CLO 2	Acquire industrial skills of advanced communication engineering and practices
CLO 3	Demonstrate the advanced application of instrumentation techniques in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Stochastic Methods	MTE 103	4:0:0	4	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on in probability, covering techniques and their use in different industries
CLO 2	Acquire industrial skills of perspective of random walks, Markov Chains, and practices
CLO 3	Demonstrate the advanced application of discrete stochastic processes in

	emerging industrial sectors
--	-----------------------------

Course Name	Course Code	LTP	Credit	Semester
Project-I	MTE 160	4:0:0	4	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on project related analyze and solve problems methodically and their use in different industries
CLO 2	Acquire industrial skills of live project culture, growth, and practices
CLO 3	Demonstrate the advanced application of consideration of engineering and financial aspects

Course Name	Course Code	LTP	Credit	Semester
Satellite Communication	MTE 104	4:0:0	4	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on Satellite communication system and their use in different industries
CLO 2	Acquire industrial skills of critical RF parameters in satellite transceiver
CLO 3	Demonstrate the advanced application of Global Positioning and inertial navigation System in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Advanced Optical Communication	MTE 105	4:0:0	4	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on Optical communication system and their use in different industries
CLO 2	Acquire industrial skills of optics transceiver and their effects on performance
CLO 3	Demonstrate the advanced application of various navigation System in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Anandam-I	AND001	0:0:0	2	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Awareness and empathy regarding community issues
CLO 2	Interaction with the community and impact on society
CLO 3	Interaction with mentor and development of Student teacher relationship
CLO 4	Interaction among students, enlarge social network
CLO 5	Cooperative and Communication skills and leadership qualities
CLO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 111	1:0:0	1	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
CLO 2	Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
CLO 3	Apply their acquired knowledge with the appropriate selection of channel of formal communication.
CLO 4	Develop and empower self with the power of Words.
CLO 5	Enhance their technical writing capabilities while also learning about do's and don'ts of technical drafting.

Course Name	Course Code	LTP	Credit	Semester
Behavioural science – I (self-development and interpersonal skills)	BSS 111	1:0:0	1	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Develop your understanding of who you are; what your core purpose is, what your values are and what limits your success
CLO 2	Manage your emotions and feelings more effectively to have the impact that you need
CLO 3	Develop the way that you regulate and control your emotions
CLO 4	Learn about your behavioral preferences to become more self-awareness
CLO 5	Develop and build your emotional intelligence.

Course Name	Course Code	LTP	Credit	Semester
French (Technology)-I	FLFA2111	2:0:0	2	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences

Course Name	Course Code	LTP	Credit	Semester
-------------	-------------	-----	--------	----------

German - I	FLG A2111	2:0:0	2	1
-------------------	------------------	--------------	----------	----------

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences

Course Name	Course Code	LTP	Credit	Semester
Spanish-I	FLS A2111	2:0:0	2	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences

Course Name	Course Code	LTP	Credit	Semester
Chinese -I	FLC A2111	2:0:0	2	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
LOW POWER VLSI DESIGN	MTE 201	4:0:0	4	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students deals with the design issues of low power circuit in digital perspective
CLO 2	Students have thorough knowledge of modeling of various MOS parameter and SPICE simulation for low power application
CLO 3	Demonstrate the advanced application of correlation analysis in DSP systems, Monte Carlo simulation, low power memory design.

Course Name	Course Code	LTP	Credit	Semester
High Level System Design & Modeling	MTE 201	4:0:0	4	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on High Level System Design & Modeling and their use in different industries
CLO 2	Acquire industrial skills of High Level System Design & Modeling, growth, and practices
CLO 3	Demonstrate the advanced application of High Level System Design & Modeling in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Advanced microwave engineering	MTE 203	4:0:0	4	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on Advanced Microwave and their use in different industries
CLO 2	Student can analyze microwave networks using S and mixed mode S parameters
CLO 3	CO2 Design microwave filters using various methods can be done

Course Name	Course Code	LTP	Credit	Semester
Project – II	MTE 260	4:0:0	4	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on Microorganisms and their use in different industries
CLO 2	Acquire industrial skills of microbial culture, growth, and practices
CLO 3	Demonstrate the advanced application of Microbes in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Advanced Wireless Sensor Network	MTE 204	4:0:0	4	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on Microorganisms and their use in different industries
CLO 2	Acquire industrial skills of microbial culture, growth, and practices
CLO 3	Demonstrate the advanced application of Microbes in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
MEMS & IC Integration	MMC 101	4:0:0	4	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on MEMS & IC Integration and their use in different industries
CLO 2	Acquire industrial skills of MEMS & IC Integration, growth, and practices
CLO 3	Demonstrate the advanced application of MEMS & IC Integration in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Anandam-II	AND002	0:0:0	2	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Awareness and empathy regarding community issues
CLO 2	Interaction with the community and impact on society
CLO 3	Interaction with mentor and development of Student teacher relationship
CLO 4	Interaction among students, enlarge social network
CLO 5	Cooperative and Communication skills and leadership qualities
CLO 6	Critical thinking, Confidence and Efficiency

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 211	1:0:0	1	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
CLO 2	Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
CLO 3	Recognize the mannerisms and methodology of Interview.

Course Name	Course Code	LTP	Credit	Semester
Behavioural science - II (behavioural communication and relationship management)	BSS211	1:0:0	1	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Demonstrate an understanding of interpersonal skills as part of effective communication processes.
CLO 2	Identify the effects of behaviour on interpersonal communication
CLO 3	Demonstrate a range of effective interpersonal communication skills
CLO 4	Use assertiveness and interpersonal skills in the workplace team
CLO 5	Utilise effective communication skills to build strong relationships
CLO 6	Develop, implement and promote effective communication techniques

Course Name	Course Code	LTP	Credit	Semester
FRENCH – II	FLFA2211	2:0:0	2	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
-------	--

CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences

Course Name	Course Code	LTP	Credit	Semester
GERMAN – II	FLG A2111	2:0:0	2	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Spanish – II	FLS A2211	2:0:0	2	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentence

Course Name	Course Code	LTP	Credit	Semester
Chinese-II	FLC A2211	2:0:0	2	II

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Digital signal processing	MTE 301	4:0:0	4	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	To provide the student with significant skills in general as well as advanced theories
CLO 2	To give the student a broad knowledge of central issues regarding design, realisation
CLO 3	Demonstrate the advanced application of DSP in emerging industrial sectors
CLO 4	To study practical or theoretic fields, ranging from mathematics/signal theory over algorithmic design
CLO 5	To develop the instruments based on hardware and/or software for real time signal

Course Name	Course Code	LTP	Credit	Semester
Antenna Theory & Design	MTE 302	4:0:0	4	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	To design antenna array using synthesize techniques.
CLO 2	To provide the essential knowledge of the antenna parameters and measurements
CLO 3	To introduce the types of high impedance surface antennas for various applications.
CLO 4	To design the single element microstrip antenna and array with feeder network

Course Name	Course Code	LTP	Credit	Semester
Image Processing	MTE 303	4:0:0	4	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on fundamental concepts of digital image processing and image enhancement in spatial domain
CLO 2	Acquire industrial skills of image enhancement in frequency domain, growth, and practices
CLO 3	Demonstrate the advanced application of Microbes in emerging industrial sectors
CLO 4	To study the Image Compression and Object recognition

Course Name	Course Code	LTP	Credit	Semester
Project-III	MTE 361	0:0:0	5	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on live projects on electronics & communication domain and their use in different industries
CLO 2	Acquire industrial skills of real industrial projects and practices
CLO 3	Demonstrate the advanced application of expertise in ECE projects in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Optimization Techniques	MTE 304	3:0:0	3	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on implement a problem for minimum cost, greater efficiency better customer service and higher quality
CLO 2	Acquire industrial skills of Optimization Techniques, and practices
CLO 3	Demonstrate the advanced application of Optimization Techniques in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
VLSI Sub System Design	MTE 305	3:0:0	3	1

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on VLSI Sub System Design and their use in different industries
-------	---

CLO 2	Acquire industrial skills of VLSI Sub System Design and practices
CLO 3	Demonstrate the advanced application of VLSI Sub System Designs in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 311	1:0:0	1	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Develop an idea of professional work place
CLO 2	Learn about the importance of interviews, etiquette.
CLO 3	Learn the basic steps and techniques for preparing and for having a successful interview
CLO 4	Demonstrate Workplace Speaking Skills.

Course Name	Course Code	LTP	Credit	Semester
BEHAVIOURAL SCIENCE - III (LEADING THROUGH TEAMS)	BSS 311	1:0:0	1	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Describe team design features and the difference between team and group, and components of the concept.
CLO 2	Identify the patterns of interaction in a team, method of studying attractions and repulsions in groups sociometry and construction of socio-gram for studying interpersonal relations in a Team.
CLO 3	Analyze various stages of team growth, team performance curve profiling a team: Role of leadership in managing team.
CLO 4	Differentiate between management values, pragmatic spirituality in life and organization building global teams through universal human values.
CLO 5	Demonstrate the leaning of teams, leadership and values, pragmatic spirituality in life and organization building global teams.

Course Name	Course Code	LTP	Credit	Semester
French – III	FLFA2211	2:0:0	2	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
German - III	FLG A2211	2:0:0	2	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences

Course Name	Course Code	LTP	Credit	Semester
Spanish – III	FLS A2311	2:0:0	2	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences
CLO 4	To be able to write formal and informal, business letters/ E-mails
CLO 5	Translating basic technical texts from Spanish to English
CLO 6	Essay writing on different issues.
CLO 7	Spanish for specific purpose

Course Name	Course Code	LTP	Credit	Semester
Chinese – III	FLC A2311	2:0:0	2	III

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
CLO 2	Students will be able to read and interpret small texts of advance level.
CLO 3	Students will be able to communicate with complex sentences.

Course Name	Course Code	LTP	Credit	Semester
Dissertation	MTE 450	0:0:0	30	IV

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Introduction and historical information on live ECE projects and their use in different industries
CLO 2	Acquire industrial skills of ECE hardware/software major projects, and practices
CLO 3	Demonstrate the advanced application of ECE based academics/industrial problems with their solutions in emerging industrial sectors

Course Name	Course Code	LTP	Credit	Semester
Behavioural science - IV (personal and professional excellence)	BSS 411	1:0:0	1	IV

COURSE LEARNING OUTCOMES (CLO)

CLO 1	Identify the domains to develop as an individual society and nation level.
-------	--

CLO 2	Recognize different ways to achieve personal excellence, professional power and professional success.
CLO 3	Analyse different techniques for career planning, setting goals to maintain focus, stress management for healthy living.
CLO 4	Apply different skills to achieve personal and professional success.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF ENGINEERING & TECHNOLOGY
(ASET)**

Master of Technology

(Solar & Alternative Energy)

Programme Code: MTS

12208

Duration – 2 Years Full Time

Programme Structure

Credits Summary

M.Tech – Solar and Alternative Energy (02 Years/ 04 Semesters)						
Semester	Core Course (CC+P C)	Domain Elective s (DE)	Value Added Course (VAC)	Open Electives (OE)	Non- Teachin g Credit Courses (NTC C)	Total
I	12	3	4	3	-	22
II	16	3	4	3	-	26
III	16	3	4	3		26
IV	30	-	-	-		30
Total	74	9	12	9	-	104

CC= Core Course, DE= Domain Elective, OE= Open Elective, VA= Value Added Course
NTCC= Non - Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

1. Students will be able to demonstrate a fundamental understanding of energy and power by solving energy/power problems relating to energy transfer, energy efficiency and energy conversion
2. Students will be able to identify and describe the major sources of energy used in society today
3. Students will be able to identify and describe emerging and possible future sources of energy in our society
4. Students will be able to construct a working physical model of energy conversion, energy storage, or energy utilization
5. Students will be able to effectively communicate technical aspects of renewable energy project in a formal written report

Program Structure

AMITY SCHOOL OF ENGINEERING & TECHNOLOGY (ASET) Master of Technology - (Solar & Alternative Energy)

FIRST SEMESTER

Code	Title	Category	L	T	P	Credit
MTS 101	Heat Transfer in Renewable Energy Systems	CC	3	-	-	3
MTS 102	Photovoltaic and Fuel Cells System	CC	3	-	-	3
MTS 103	Renewable Energy System	CC	3	-	-	3
MTS 121	Practical – I	CC	-	-	6	3
DE Electives: Student has to select 1 Course from the list of following DE Elective						
MTS 104	Wind and Hydro Energy System	DE	3	-	-	3
MTS 105	Electronic Devices and Circuits	DE	3	-	-	3
MTS 106	Semiconductor Device fabrication Technology	DE	3	-	-	3
OPEN ELECTIVE						
	Open Elective – 2	OE	3	-	-	3
Value Added						
BCS 111	Communication Skills – I	VA	1	-	-	1
BSS 111	Behavioural Science – I	VA	1	-	-	1
	Foreign Language – I	VA	2	-	-	2
FLT 111	French					
FLG 111	German					
FLS 111	Spanish					
FLC 111	Chinese					
TOTAL						22
Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work						

SECOND SEMESTER

Code	Title	Category	L	T	P	Credit
MTS 201	Design of Solar thermal system	CC	3	-	-	3
MTS 202	Design of Solar Photovoltaic Cells	CC	3	-	-	3
MTS 203	Sustainable Building Design	CC	3	-	-	3
MTS 221	Practical – II	CC	-	-	6	3
MTS 255	Seminar and Project	CC	-	-	-	4
DE Electives: Student has to select 1 Course from the list of following DE Elective						
MTS 204	Instrumentation and Control of Energy System	DE	3	-	-	3
MTS 205	Advanced Refrigeration System	DE	3	-	-	3
MTS 206	Energy and Environmental Policies	DE	3	-	-	3
OPEN ELECTIVE						
	Open Elective-2	OE	3	-	-	3
Value Added						
BCS 211	Communication Skills – II	VA	1	-	-	1
BSS 211	Behavioural Science – II	VA	1	-	-	1
FLT 211	Foreign Language – II	VA	2	-	-	2
FLG 211	French					
FLS 211	German					
FLC 211	Spanish Chinese					
TOTAL						26
Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work						

***SUMMER TRAINING DURING THE SUMMER BREAK**

THIRD SEMESTER

Code	Title	Category	L	T	P	Credit
MTS 301	Advanced Photovoltaic Technologies	CC	3	-	-	3
MTS 302	Industrial Energy Management System	CC	3	-	-	3
MTS 370	Minor Project: Energy Efficient Building Design	CC	-	-	-	6
MTS 350	Summer Training (Evaluation)	CC	-	-		4
DE Electives: Student has to select 1 Course from the list of following DE Elective						
MTS 303	Waste to Energy conversion technologies	DE	3	-	-	3
MTS 304	Grid Connectivity and Smart Grid System	DE	3	-	-	3
MTS 305	Research Methodology	DE	3	-	-	3
OPEN ELECTIVE						
	Open Elective-3	OE	3	-	-	3
Value Added						
BCS 311	Communication Skills – III	VA	1	-	-	1
BSS 311	Behavioural Science – III	VA	1	-	-	1
FLT 311	French	VA	2	-	-	2
FLG 311	German					
FLS 311	Spanish					
FLC311	Chinese					
TOTAL						26
<p>Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work</p>						

FOURTH SEMESTER

MTS 455	Dissertation	CC	-	-	-	30	
	TOTAL					30	



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF INFORMATION TECHNOLOGY
(AIIT)**

Master of Computer Applications (MCA)

Programme Code: 121450

Duration – 2 Years Full Time

Programme Structure

PROGRAMME STRUCTURE CREDITS SUMMARY

Master of Computer Applications (MCA)

	Credits PG (2 years/ 4 Semesters)							
Semester	CC	DE	VA	OE	EVS	NTCC	ANDP	Total
I	11	07	04	0	0	01	02	25
II	11	07	04	03	0	06	02	33
III	07	07	04	03	0	10	02	33
IV	0	0	0	0	0	30	0	30
Total	29	21	12	06	0	47	06	121

Core Courses	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Environmental Science	EVS
Project Work (Non Teaching Credit Course)	NTCC
Anandam Project	ANDP

Program Specific Outcomes (PSOs)

1. Apply a sound knowledge of Computer Science and applications to the identification, analysis and solution of Computer Science problems;
2. Recognize and identify the emerging technologies and reveal their application areas;
3. Utilize the algorithms, tools and techniques used in Software development and Demonstrate their mastery of computer applications in the core knowledge areas;
4. Apply a high level of knowledge and skills in the applications of computer programming, web designing and networking; to Grow and develop as a software, web and network professional.

PROGRAMME STRUCTURE
Master of Computer Applications (MCA)

FIRST SEMESTER

S. No.	Course Title	Category	Lecture (L)	Tutorial (T)	Practical (P)	Total Credits
CORE COURSE (CC)						
MCA101	Optimization Technique	CC	2	1	-	3
MCA102	Core Java	CC	2	1	-	3
MCA103	Advanced Database Management System	CC	2	1	-	3
MCA122	Core Java Lab	CC	-	-	2	1
MCA123	Advanced Database Management System Lab	CC	-	-	2	1
DOMAIN ELECTIVES (DE)						
Elective-I (Without Lab)	Select any ONE					
MCA131	Mobile Computing	DE	2	1	-	3
MCA132	Theory of Computation	DE				
MCA133	Analysis and Design of Algorithms	DE				
Elective-II (With Lab)	Select any ONE					
MCA134	Computer Graphics	DE	2	1	-	3
MCA135	Data Warehousing and Mining	DE				
MCA136	Open Source Technology	DE				
MCA137	Network Fundamental	DE				
MCA144	Computer Graphics Lab	DE	-	-	2	1
MCA145	Data Warehousing and Mining Lab	DE				
MCA146	Open Source Technology Lab	DE				
MCA147	Network Fundamental Lab	DE				
Non Teaching Credit Course (NTCC)						
MCA151	Report on Workshop / Social Work	NTCC	-	-	-	1
AND001	Anandam-I	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS111	Communication Skills –I	VA	1	-	-	1
BSS111	Behavioural Science-I (Self Development and Interpersonal Skills)	VA	1	-	-	1
FLT111	Foreign Language French	VA	2	-	-	2
FLG111	German	VA				
FLS111	Spanish	VA				
FLC111	Chinese	VA				
	TOTAL					25

SECOND SEMESTER

S. No.	Course Title	Category	Lecture (L)	Tutorial (T)	Practical (P)	Total Credits
CORE COURSE (CC)						
MCA201	Software Engineering & Project Management	CC	2	1	-	3
MCA202	Advanced Java	CC	2	1	-	3
MCA203	Distributed Operating System	CC	2	1	-	3
MCA221	Software Engineering & Project Management Lab	CC	-	-	2	1
MCA222	Advanced Java Lab	CC	-	-	2	1
DOMAIN ELECTIVES (DE)						
Elective-I (Without Lab)	Select any ONE					
MCA231	Cloud Computing	DE	2	1	-	3
MCA232	Soft Computing	DE				
MCA233	High Performance Computing	DE				
MCA234	Embedded System	DE				
MCA235	Accessing the WAN	DE				
Elective-II (With Lab)	Select any ONE					
MCA236	ASP.NET using C#	DE	2	1	-	3
MCA237	PHP	DE				
MCA238	Routing Protocol & Concept	DE				
MCA239	Statistical Analysis using R	DE				
MCA246	ASP.NET using C# Lab	DE				
MCA247	PHP Lab	DE	-	-	2	1
MCA248	Routing Protocol & Concept Lab	DE				
MCA249	Statistical Analysis using R Lab	DE				
OPEN ELECTIVES (OE)						
	Open Elective		2	1	-	3
Non Teaching Credit Course (NTCC)						
MCA250	Minor Project	NTCC	-	-	-	6
AND002	Anandam-II	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS211	Communication Skills –II	VA	1	-	-	1
BSS211	Behavioural Science-II (Behavioural Communication and Relationship Management)	VA	1	-	-	1
FLT211	Foreign Language French	VA	2	-	-	2
FLG211	German	VA				
FLS211	Spanish	VA				
FLC211	Chinese	VA				
	TOTAL					33

THIRD SEMESTER

S. No.	Course Title	Category	Lecture (L)	Tutorial (T)	Practical (P)	Total Credits
CORE COURSE (CC)						
MCA301	Artificial Intelligence	CC	2	1	-	3
MCA302	Information Storage Management	CC	2	1	-	3
MCA321	Artificial Intelligence Lab	CC	-	-	2	1
DOMAIN ELECTIVES (DE)						
Elective-I (Without Lab)	Select any ONE					
MCA331	Search Engine Optimization	DE	2	1	-	3
MCA332	Digital Marketing Analytics	DE				
MCA333	Compiler Design	DE				
MCA334	Digital Image Processing	DE				
MCA335	Salesforce Technology	DE				
Elective-II (With Lab)	Select any ONE					
MCA336	LAN Switching & Wireless	DE	2	1	-	3
MCA337	Python	DE				
MCA338	Big Data & Analytic using R	DE				
MCA339	Android Programming	DE				
MCA346	LAN Switching & Wireless Lab	DE	-	-	2	1
MCA347	Python Lab	DE				
MCA348	Big Data & Analytic using R Lab	DE				
MCA349	Android Programming Lab	DE				
OPEN ELECTIVES (OE)						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
MCA350	Minor Project	NTCC	-	-	-	6
MCA351	Report on Paper Presentation in Conference	NTCC	-	-	-	1
MCA352	Summer Internship Project	NTCC	-	-	-	3
AND003	Anandam-III	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS311	Communication Skills –III	VA	1	-	-	1
BSS311	Behavioural Science-III (Leading Through Teams)	VA	1	-	-	1
FLT311	Foreign Language		2	-	-	2
FLG311	French	VA				
FLS311	German	VA				
FLC311	Spanish	VA				
FLC311	Chinese	VA				
	TOTAL					33

FOURTH SEMESTER

S. No.	Course Title	Category	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Non Teaching Credit Course (NTCC)					
Elective	Select any ONE				
MCA460	Project Work	NTCC	-	-	30
MCA461	Internship	NTCC			
MCA462	Dissertation	NTCC			
	TOTAL				30

COURSE OUTCOMES

MCA-101 - OPTIMIZATION TECHNIQUE

Upon successful completion of the course, the students will be able to:

1. Ability to apply the theory of optimization methods and algorithms to develop and for solving various types of optimization problems.
2. Ability to go in research by applying optimization techniques in problems of Engineering and Technology.

MCA-102 – CORE JAVA

Upon successful completion of the course, the students will be able to:

1. Recognize the concept of object oriented programming for java based applications.
2. Identify the utility of various java keywords, class libraries and API.
3. Describe java class & objects, inheritance, packages, interface, multithreading, events and applets with hands on coding.
4. Apply hands on real life applications development using standard tools.
5. Create graphical user interface based advanced applications.

MCA-102 – ADVANCED DATABASE MANAGEMENT SYSTEM

Upon successful completion of the course, the students will be able to:

1. To analyse the basics of SQL and construct queries using PL/SQL efficiently and apply object oriented features for developing database.
2. To understand the trigger and stored procedure in database which automatically invokes whenever a special event in the database occurs.
3. Recognise the distributed DBMS which provide other functions including integration of heterogeneous data, query optimization and processing, concurrency control and recovery.
4. Understand the parallel database for solving the problem by splitting database operations into separate tasks.
5. Analyse the Object Oriented (OO) Data Model in DBMS for solving the complex real-world problems and demonstrate the need of a data model that more closely represented the real world.

MCA-122 – CORE JAVA LAB

Upon successful completion of the course, the students will be able to:

1. Investigate different concepts of programming approaches in terms of application or project development.
2. Create methods and programs within the field of security as well as developing logical and analytical approaches to programming problems independently.
3. Apply his/her knowledge in new areas within field of basic and advanced programming.
4. Develop independently relevant applications using self-logic in the field of security programming languages. These methods include performing experiment/ programs and interpreting their results."

MCA-122 – ADVANCED DATABASE MANAGEMENT SYSTEM LAB

Upon successful completion of the course, the students will be able to:

- 1.Describes Basic Elements of SQL.
- 2.Work with different types of SQL Statements Data Query Language (DQL), Data Definition Language (DDL), Data Manipulation Language (DML).
- 3.Understand that PL/SQL provides programming extensions to SQL
- 4.Design PL/SQL program units that execute efficiently
- 5.Work with Stored Procedures and Functions
- 6.Understand Triggers and Cursor concepts.

MCA-131 – MOBILE COMPUTING

Upon successful completion of the course, the students will be able to:

- 1.Able to understand the mobile computing principals and its applications in our world
2. To understand how mobile computing works by understanding various concepts behind it and how they can be implemented for real world problems
3. To understand use of mobile computing that has been used to speedup smart connectivity, mobile apps development, arrange code more systematically, and easy to debug and studying concepts from linguistics and philosophy to computer science.
4. To be able to understand mobile computing applications and how it can be use in real world applications to benefit us. "

MCA-132 – THEORY OF COMPUTATION

Upon successful completion of the course, the students will be able to:

- 1.Understand the concept of the mathematical foundations of computation including automata theory
- 2.Abel to learn the theory of formal languages and grammars; the notions of algorithm, decidability, complexity, and computability.

MCA-133 – ANALYSIS AND DESIGN OF ALGORITHMS

Upon successful completion of the course, the students will be able to:

1. Analyze the asymptotic performance of algorithms.
2. Able to write rigorous correctness proofs for algorithms.
3. Demonstrate a familiarity with major algorithms and data structures.
4. Apply important algorithmic design paradigms and methods of analysis.

MCA-134 – COMPUTER GRAPHICS

Upon successful completion of the course, the students will be able to:

1. Develop the basic concepts of computer graphics.
2. It provides the necessary theoretical background and demonstrates the application of computer science to graphics.
3. The course further allows students to develop programming skills in computer graphics through programming assignments.

MCA-135 – DATA WAREHOUSING AND MINING

Upon successful completion of the course, the students will be able to:

1. Be familiar with mathematical foundations of data mining tools.
2. Understand and implement classical models and algorithms in data warehouses and data mining
3. Characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering.

MCA-136 – OPEN SOURCE TECHNOLOGY

Upon successful completion of the course, the students will be able to:

1. Open source technology means that its source code is freely available to use, modify, and redistribute.
2. Encourages a hybrid model for open source technology depending on users' needs.

MCA-137 – NETWORK FUNDAMENTAL

Upon successful completion of the course, the students will be able to:

1. Demonstrate use of networking mathematics, terminology, and models.
2. Explain the fundamental principles and concepts of the seven-layer OSI model.
3. Analyze and troubleshoot multiple-layer problems of the seven-layer OSI model for troubleshooting.

MCA-144 – COMPUTER GRAPHICS LAB

Upon successful completion of the course, the students will be able to:

1. Help to know the necessary theoretical background and demonstrates the application of computer science to graphics.
2. The course further allows students to develop programming skills in computer graphics through programming assignments.

MCA-145 – DATA WAREHOUSING AND MINING LAB

Upon successful completion of the course, the students will be able to:

- 1 Be familiar with mathematical foundations of data mining tools.
- 2 Understand and implement classical models and algorithms in data warehouses and data mining
- 3 Characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering.

MCA-146 – OPEN SOURCE TECHNOLOGY LAB

Upon successful completion of the course, the students will be able to:

- 1.Set up GitHub Account, Use git commands to manage files and support version control.
- 2.Apply a mix of Client, Server and Database technologies to solve Open Source Software issues/ to enhance projects.
- 3.Develop Server side programs using python with Database Servers- SQL, MongoDB.
- 4.Develop Server side programs using PHP with Database Server-SQL and Apache/Tomcat as web Servers.
- 5.Develop J2EE Programs using JDBC Connectivity with SQL Database and Apache/ Glassfish as web servers.
- 6.Contribute to open source community GitHub by providing enhanced versions.

MCA-147 – NETWORK FUNDAMENTAL LAB

Upon successful completion of the course, the students will be able to:

- 1.Outline the architecture of a network and how the various components work together to achieve data communications.
- 2.Describe how protocols handle data communications in a network and verify through the use of network utilities.
- 3.Explain the role and function of the layers that form part of a specified protocol stack such as TCP/IP and how these layers work together to support applications such as the Web etc.
- 4.Calculate subnet masks and addresses to fulfil design requirements.
- 5.Build a simple network using routers and switches and perform basic configuration, verification and troubleshooting.

AND001 Anandam Reports

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BCS111 Communication Skills-I

Upon successful completion of the course, the students will be able to:

1. Investigate their strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Apply their acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the power of Words.
5. Enhance their technical writing capabilities while also learning about do's and don'ts of technical drafting."

BSS111 Behavioural Science-I (Self Development and Interpersonal Skills)

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT111 French

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG111 German

Upon successful completion of the course, the students will be able to:

1. understand and give instructions

2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS111 Spanish

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish"

FLC111 Chinese

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

SECOND SEMESTER

MCA 201 SOFTWARE ENGINEERING & PROJECT MGMT.

At the successful completion of this course the student should be able to:

- (1) To define basic concepts of software development such as requirement analysis, designing, testing and debugging etc.
- (2) To explain different types of models that can be used to design a software.
- (3) To design solutions to a given problem and analyze the best one on the basis of parameters like cost, time, knowledge.
- (4) To apply the various testing techniques and testing tools.
- (5) To explain the importance of reliability in software development.

MCA 202 ADVANCED JAVA

At the successful completion of this course you should be able to:

1. Develop Swing-based GUI
2. Develop client/server applications and TCP/IP socket programming
3. Update and retrieve the data from the databases using SQL
4. Develop distributed applications using RMI
5. Develop component-based Java software using JavaBeans
6. Develop server side programs in the form of servlets

MCA 203 DISTRIBUTED OPERATING SYSTEM

At the successful completion of this course you (the student) should be able to:

1. To learn and identify working principle of distributed operating system.
2. To differentiate memory, processor, file,I/O, synchronisation etc. Management system.
3. To define the how to distributed operating system memory management works.
4. To impart knowledge of system call and interrupt handling of operating system.

MCA 221 SOFTWARE ENGINEERING & PROJECT MGMT LAB

At the successful completion of this course the student should be able to:

- (1) To define basic concepts of software development such as requirement analysis, designing, testing and debugging etc.
- (2) To explain different types of models that can be used to design a software.
- (3) To design solutions to a given problem and analyze the best one on the basis of parameters like cost, time, knowledge.
- (4) To apply the various testing techniques and testing tools.
- (5) To explain the importance of reliability in software development.

MCA 222 ADVANCED JAVA LAB

At the successful completion of this course the student should be able to:

1. Develop Swing-based GUI
2. Develop client/server applications and TCP/IP socket programming
3. Update and retrieve the data from the databases using SQL
4. Develop distributed applications using RMI
5. Develop component-based Java software using JavaBeans

6. Develop server side programs in the form of servlets

MCA 231 Cloud Computing

At the successful completion of this course the student should be able to:

1. Investigate different concepts of cloud computing in terms of an individual, organization.
2. Create theories, methods and interpretations of theories within the field of cloud computing as well as solving theoretical and practical problems independently.
3. Apply his/her knowledge in new areas within field of cloud computing.
4. Develop independently relevant methods in research and development in the field of cloud computing. These methods include literature study and performing scientific experiments together with interpreting their results.

MCA 235 MATLAB

After completing this course, students will be able to:

1. Ability to express programming & simulation for Computer Science problems as well as basic Mathematical problems in MATLAB.
2. Recognize the procedures, algorithms, and concepts require solving specific problems.
3. Articulate importance of software's in research by simulation work..
4. Code solutions to problems in MATLAB, in a legible, debuggable and efficient way.

MCA 245 MATLAB

After completing this course, students will be able to:

- 1) Recognize the basics of MAT LAB.
- 2) Solve the problems under analysis like heuristic search etc.,
- 3) To Programme how to analyze the error concepts and their importance.
- 4) Apply different types of logics and their procedures for Solving complex problems.

MCA 237 PHP

At the successful completion of this course you (the student) should be able to:

1. Write basic PHP scripts that process user input from a web form.
2. Use PHP variables, arrays, loops, conditional statements, and operators.
3. Create and Manipulate the database through PHP .
4. To implement the concept of Content Management System.

MCA 247 PHP LAB

At the successful completion of this course you (the student) should be able to:

1. To compare between Static and Dynamic content.
2. To implement the concept of File handling.
3. To illustrate the framework of PHP an open source technologies.
4. To develop a Website with database programming in PHP.

MCA250 Minor Project

Upon successful completion of the course, the students will be able to:

1. Identify the proposed problem
2. Develop a functional application based on the software design
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

BCS211 Communication Skills-II

Upon successful completion of the course, the students will be able to:

1. Identify essentials components of language
2. Make inferences and predictions about spoken discourse
3. Develop Creative & Literary Sensitivity in global situation
4. Identify features of a reading textbook and utilize them as needed"

BSS211 Behavioural Science-II (Behavioural Communication and Relationship Management)

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT211 French

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG211 German

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS211 Spanish

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish"

FLC211 Chinese

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

THIRD SEMESTER

MCA301 Artificial Intelligence

CLO1: Able to understand the AI principals and its applications in our world

CLO 2: To understand how search can be performed using search methods based on AI and how they can be implemented for real world problems

CLO 3: To understand Predicate logic that has been used to increase precision in describing and studying structures from linguistics and philosophy to mathematics and computer science.

CLO 4: To be able to understand Fuzzy logic and how it can be use in real world applications to benefit us.

MCA 302 Information Storage Management (EMC²)

- CLO1: Evaluate storage architectures and key data center elements in classic, virtualized and cloud environments.
- CLO 2: Explain physical and logical components of a storage infrastructure including storage subsystems, RAID and intelligent storage systems.
- CLO 3: Describe understanding and working of storage networking technologies such as DAS, NAS, and SANS.
- CLO 4: Articulate business continuity solutions – backup and replication, plus archive for managing fixed content.

MCA321 Artificial Intelligence

At the successful completion of this course the student should be able to:

1. Able to understand various classical AI algorithms and their implementation.
2. Create methods and programs within the field using relevant programming as well as developing logical and analytical approaches to programming problems independently.
3. Apply his/her knowledge in new areas within field of basic and advanced AI.
4. Developing relevant applications using self logic in the field of programming languages. These methods include performing experiment/programs and interpreting their results.

MCA331 Mobile Computing

At the successful completion of this course the student should be able to:

1. Investigate different concepts of mobile computing in terms of an individual, organization.
2. Create theories, methods and interpretations of theories within the field of mobile computing as well as solving theoretical and practical problems independently.
3. Apply his/her knowledge in new areas within field of mobile computing.
4. Develop independently relevant methods in research and development in the field of mobile computing. These methods include literature study and performing scientific experiments together with interpreting their results.

MCA332 DIGITAL MARKETING ANALYTICS

At the successful completion of this course the student should be able to:

1. Explain the role and importance of digital marketing in a rapidly changing business landscape
 2. Discuss the key elements of a digital marketing strategy
 3. Illustrate how the effectiveness of a digital marketing campaign can be measured
 4. Demonstrate advanced practical skills in common digital marketing tools such as SEO, SEM, Social media and Blogs
- 2.4 Relationship between course and program learning outcomes and assessments

MCA334 Core Java

At the successful completion of this course the student should be able to:

1. Recognize the concept of object oriented programming for java based applications.
2. Identify the utility of various java keywords, class libraries and API.
3. Describe java class & objects, inheritance, packages, interface, multithreading, events and applets with hands on coding.
4. Apply hands on real life applications development using standard tools.
5. Create graphical user interface based advanced applications.

MCA344 Core Java LAB

At the successful completion of this course the student should be able to:

1. Investigate different concepts of programming approaches in terms of application or project development.
2. Create methods and programs within the field of procedural programming as well as developing logical and analytical approaches to programming problems independently.
3. Apply his/her knowledge in new areas within field of basic and advanced programming.
4. Develop independently relevant applications using self logic in the field of programming languages. These methods include performing experiment/programs and interpreting their results.

MCA337 PYTHON

At the successful completion of this course the student should be able to:

1. Recognize the python programming problem solution and its implementation.
2. Identify the tools for python programming.
3. Describe the concept of different library functions and its utilization.
4. Apply knowledge of python programming techniques to solve computer problems.

MCA347 PYTHON LAB

At the successful completion of this course the student should be able to:

1. Read and understand Python-based software code of medium-to-high complexity.
2. Use standard and different type of Python's libraries when required for implementation.
3. Understand the basic principles of creating Python applications or program.
4. Understand the fundamental concepts of computer science: structure of the computational process, algorithms and complexity of computation.

MCA350 Minor Project

Upon successful completion of the course, the students will be able to:

1. Identify the proposed problem
2. Develop a functional application based on the software design
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

MCA351 Report on Paper Presentation in Conference

Upon successful completion of the course, the students will be able to:

1. Ability to be a multi-skilled with sound technical knowledge.
2. Ability to communicate efficiently.

3. Develop technical report writing and oral presentation skills
4. Prepare the proper documentation for report writing and oral presentation

MCA352 Summer Internship Project

Upon successful completion of the course, the students will be able to:

1. Identify, Define and justify the scope of the proposed problem
2. Propose an optimized solution among the existing solutions
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

BCS311 Communication Skills-III

Upon successful completion of the course, the students will be able to:

1. Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while choosing the appropriate channel of formal communication
3. Apply acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the ease of using appropriate medium of communication."

BSS311 Behavioural Science-III (Leading Through Teams)

Upon successful completion of the course, the students will be able to:

1. Demonstrate knowledge of strategies for developing a healthy interpersonal communication
2. Recognize the importance of transactional analysis, script analysis
3. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competencenecessary for conflict resolution and impression management.
4. Demonstrate knowledge of strategies for developing a healthy interpersonal relationship"

FLT311 French

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG311 German

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS311 Spanish

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish"

FLC311 Chinese

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

FOURTH SEMESTER

MCA460 Project Work

Upon successful completion of the course, the students will be able to:

1. Identify the proposed problem
2. Develop a functional application based on the software design
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

MCA461 Internship

Upon successful completion of the course, the students will be able to:

1. Identify, Define and justify the scope of the proposed problem
2. Propose an optimized solution among the existing solutions
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF INFORMATION TECHNOLOGY
(AIIT)**

Bachelor of Computer Applications (BCA)

Programme Code: 12048

Duration – 3 Years Full Time

Programme Structure

PROGRAMME STRUCTURE CREDITS SUMMARY
Bachelor of Computer Applications (BCA)-2021

Semester	Credits UG (3 years/ 6 Semesters)							Total
	CC	DE	VA	OE	EVS	NTCC	ANDP	
I	17	0	04	0	0	0	02	23
II	14	03	04	03	0	0	02	26
III	11	03	04	03	04	03	02	30
IV	16	04	04	03	0	03	02	32
V	11	04	04	03	0	03	02	27
VI	08	0	0	0	0	15	0	23
Total	77	14	20	12	4	24	10	161

Core Courses	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Environmental Science	EVS
Project Work (Non Teaching Credit Course)	NTCC
Anandam Project	ANDP

Program Specific Outcomes (PSOs)

1. Analyze and apply foundational knowledge, and solve problems of both practical and theoretical nature.
2. Investigate and evaluate new technologies and their applications;
3. Utilize a variety of tools, techniques and programming languages and apply knowledge of computing, mathematics and science to real world problems;
4. Obtain employment as computer scientist in local and global industries and organization, where they are competent in applying the fundamental knowledge, computational principles and skills in computer science.

PROGRAMME STRUCTURE

Bachelor of Computer Application -BCA

FIRST SEMESTER

CODE	COURSE	CATEGORY	L	T	P/FW	CREDIT UNITS
BCA101	Digital Electronics	CC	2	1	-	3
BCI102	Basic Mathematics	CC	2	1	-	3
BCI103	Introduction to Computer Networking	CC	2	1	-	3
BCI104	Programming and Problem solving through 'C' Language	CC	2	1	-	3
BCI105	Computer Concepts and Problem Solving	CC	2	1	-	3
BCI124	Programming and Problem solving through 'C' Language Lab	CC	-	-	2	1
BCI125	Computer Concepts and Problem Solving Lab	CC	-	-	2	1
Non Teaching Credit Course (NTCC)						
AND001	Anandam-I	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 101	English	VA	1	-	-	1
BSS 103	Behavioural Science-I (Understanding Self for Effectiveness)	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
TOTAL						23

SECOND SEMESTER

CODE	COURSE	CATEGOR Y	L	T	P/FW	CREDIT UNITS
BCA201	Discrete Mathematical Structures with Application to CS	CC	2	1	-	3
BCI202	Introduction to Systems Analysis & Design	CC	2	1	-	3
BCI203	Data Structures using C	CC	2	1	-	3
BCI204	Introduction to Database Management Systems	CC	2	1	-	3
BCI223	Data Structures using C LAB	CC	-	-	2	1
BCI224	Introduction to Database Management Systems LAB	CC	-	-	2	1
DE Elective: Choose any one course from the following courses						
BCI231	Networking for Home & Small Business	DE	2	1	-	3
BCI232	Internet Fundamental					
BCI233	Cyber Security					
OPEN ELECTIVE						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
AND002	Anandam-II	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 201	English	VA	1	-	-	1
BSS 203	Behavioural Science – II (Problem Solving and Creative Thinking)	VA	1			1
FLT 201	Foreign Language - II	VA	2	-	-	2
FLG 201	French					
FLS 201	German					
FLC 201	Spanish					
	Chinese					
	TOTAL					26

SUMMER PROJECT – I

THIRD SEMESTER

CODE	COURSE	CATEGORY	L	T	P/F W	CREDI T UNITS
BCA301	Computer Oriented Statistical & Optimization Methods	CC	2	1	-	3
BCA302	Advance Database Management Systems	CC	2	1	-	3
BCI303	Object Oriented Programming Concepts Using C++	CC	2	1	-	3
BCA322	Advance Database Management Systems Lab	CC	-	-	2	1
BCI323	Object Oriented Programming Concepts Using C++ Lab	CC	-	-	2	1
EVS 001	Environmental Studies	EVS	4	-	-	4
Domain Elective : Choose any one from the following courses						
BCI331	Working at a Small-to-Medium Business or ISPs	DE	2	1	-	3
BCI332	Web Designing	DE				
BCI333	Advance Technologies in Computer Science	DE				
OPEN ELECTIVE						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
BCA351	Summer Project – I	NTCC	-	-	-	3
AND003	Anandam-III	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 303	Behavioural Science - III (Interpersonal Communication and relationship Management)	VA	1	-	-	1
	Foreign Language - III	VA	2	-	-	2
FLT 301	French					
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
	TOTAL					30

FOURTH SEMESTER

CODE	COURSE	CATEGORY	L	T	P/F W	CREDIT UNITS
BCI401	Computer Graphics	CC	2	1	-	3
BCI402	Design & Analysis of Algorithms	CC	2	1	-	3
BCI403	Operating Systems	CC	2	1	-	3
BCA404	Computer Oriented Numerical Methods	CC	2	1	-	3
BCA405	Software Engineering	CC	2	1	-	3
BCI421	Computer Graphics Lab	CC	-	-	2	1
Domain Elective : Choose any one from the following courses						
BCI431	Introduction to .NET Technologies	DE	2	1	-	3
BCI432	Introduction to Open Source Technologies (PHP, MySql)	DE				
BCI433	Introducing Routing & Switching in the Enterprise	DE				
BCA434	Cloud Computing	DE				
BCA435	Big Data Analytics	DE				
BCI441	Introduction to .NET Technologies Lab	DE	-	-	2	1
BCI442	Introduction to Open Source Technologies (PHP, MySql) Lab	DE				
BCI443	Introducing Routing & Switching in the Enterprise Lab	DE				
BCA444	Cloud Computing Lab	DE				
BCA445	Big Data Analytics Lab	DE				
OPEN ELECTIVE						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
BCA450	Minor Project	NTCC	-	-	-	3
AND004	Anandam-IV	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 403	Behavioral Science - IV (Group Dynamics & Team Building)	VA	1	-	-	1
FLT 401	Foreign Language - IV French	VA	2	-	-	2
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
	TOTAL					32

SUMMER PROJECT – II

FIFTH SEMESTER

CODE	COURSE	CATEGORY	L	T	P/FW	CREDIT UNITS
BCA501	Systems Software	CC	2	1	-	3
BCI502	Java Programming	CC	2	1	-	3
BCI503	UNIX Operating System & Shell Programming	CC	2	1	-	3
BCI522	Java Programming Lab	CC	-	-	2	1
BCI523	UNIX Operating System & Shell Programming Lab	CC	-	-	2	1
Domain Elective : Choose any one from the following courses						
BCI531	Designing & Supporting Computer Network	DE	2	1	-	3
BCI532	Data Warehousing & Data Mining	DE				
BCI533	Android Programming	DE				
BCA534	Web Programming	DE				
BCI541	Designing & Supporting Computer Network Lab	DE	-	-	2	1
BCI542	Data warehousing & Data Mining Lab	DE				
BCI543	Android Programming Lab	DE				
BCA544	Web Programming Lab	DE				
OPEN ELECTIVE						
	OPEN ELECTIVE	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
BCA551	Summer Project – II	NTCC	-	-	-	3
AND005	Anandam-V	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 503	Behavioural Science - V (Individual Society and Nation)	VA	1	-	-	1
FLT 501	Foreign Language - V	VA	2	-	-	2
FLG 501	French					
FLS 501	German					
FLC 501	Spanish					
	TOTAL					27

SIXTH SEMESTER

CODE	COURSE	CATEGORY	L	T	P/FW	CREDIT UNITS
BCA601	Web Technologies	CC	2	1	-	3
BCA602	Introduction to Python Technologies	CC	2	1		3
BCA621	Web Technologies Lab	CC	-	1	2	1
BCA622	Introduction to Python Technologies Lab	CC	-	-	1	1
Non Teaching Credit Course (NTCC)						
BCA660	Major Project	NTCC	-	-	-	15
	TOTAL					23

COURSE OUTCOMES

AMITY INSTITUTE OF INFORMATION TECHNOLOGY

First Sem

BCA101 Digital Electronics

Upon successful completion of the course, the students will be able to:

1. Understand the fundamental concepts of digital electronic
2. Construct, analyse, and design combinational logic circuits
3. Construct, analyse, and design sequential circuit
4. To understand about digital to analogue conversion and vice versa

BCI102 Basic Mathematics

Upon successful completion of the course, the students will be able to:

1. Identify matrix operations.
2. Understand the meaning of limit, continuity and differentiation.
3. Evaluate a definite integral using the Fundamental Theorem of Calculus.
4. Identify a general method for constructing solutions to inhomogeneous linear constant-coefficient Second-order equations.
5. Demonstrate Scalar multiplication, magnitude, Vector multiplication and Simple application of Vectors, slope of straight line, center, radius and equation of circle.

BCI103 Introduction to Computer Networking

Upon successful completion of the course, the students will be able to:

1. To understand various modulation techniques and how they are used to improve network performance.
2. To be able to understand the working of various network layer protocols such as TCP, IP etc.
3. Able to understand the computer networking principals and its applications in our world.
4. To understand how computer networks work, and its fundamentals when implemented for real world.

BCI104 Computer Concepts and Problem Solving

Upon successful completion of the course, the students will be able to:

1. Select and implement different programming approach concepts in project or application development.

2. Demonstrate awareness of programming paradigm in terms of understanding the concept of application development.
3. Analyse and critically evaluate various programming approaches which will help in implementation of different application or projects.
4. Identify different programming approaches in procedural programming.

BCI105 Computer Concepts and Problem Solving

Upon successful completion of the course, the students will be able to:

1. Apply his/her knowledge in new areas with the help of implementation of algorithmic approaches.
2. Develop independently relevant applications using self logic in the field of programming languages. These methods include performing experiment/programs and interpreting their results.
3. Investigate different concepts of computer fundamentals. Create MS Word and Excel documents for official drafting and noting purpose.

BCI124 Programming and Problem solving through 'C' Language Lab

Upon successful completion of the course, the students will be able to:

1. Identify different programming approaches in procedural programming.
2. Analyse and critically evaluate various programming approaches which will help in implementation of different application or projects.
3. Demonstrate awareness of programming paradigm in terms of understanding the concept of application development.
4. Select and implement different programming approach concepts in project or application development.

BCI125 Computer Concepts and Problem Solving Lab

Upon successful completion of the course, the students will be able to:

1. Recognize the concept of Computer Organization.
2. Identify the utility of various office package tools and their application.
3. Describe problem solving approach through the design and implementation of algorithm.
4. Apply hands on real time development of algorithm based on various techniques.

BCS 101 ENGLISH

Upon successful completion of the course, the students will be able to:

1. Identify and express in English vocabulary and grammar norms

2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in English
4. Narrate clearly ideas, themes in simple standard English

BSS 103 BEHAVIOURAL SCIENCE – I

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FLT 101 FRENCH – I

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG 101 GERMAN – I

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS 101 SPANISH – I

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

FLC 101 CHINESE – I

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100 New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

Second Sem

BCA201 Discrete Mathematical Structures with Application to CS

Upon successful completion of the course, the students will be able to:

1. CLO1. Identify the basic principles of sets and operations in sets.
2. Express a logic sentence in terms of predicates, quantifiers, and logical connectives.
3. Discriminate, identify and prove the properties of groups and subgroups.
4. Demonstrate an ability to use tree and graph algorithms to solve problem
5. Develop the fundamentals and concepts of advantage and disadvantage of each measure and utility of appropriate measure under different circumstances.

BCI202 Introduction to Systems Analysis & Design

Upon successful completion of the course, the students will be able to:

1. The student will be able to analyze business problems and develop a requirements^o document, written in clear and concise business language.
2. Develop and present a Requirements Definition Proposal for a new system in a well-structured business proposal.
3. Provides overview of the system development life cycle (SDLC) emphasizing analytical techniques to develop the correct definition of business problems and user requirements.

4. Investigate the feasibility assessment and develop system requirements for an assigned project.
5. Describe the role and responsibilities of the participants in information systems° development.

BCI203 Data Structures using C

Upon successful completion of the course, the students will be able to:

1. Students will be able to use linear and non-linear data structures like stacks, queues , linked list etc.
2. Define basic static and dynamic data structures and relevant standard algorithms for them: stack, queue, dynamically linked lists, trees, graphs, heap, priority queue, hash tables, sorting algorithms, min-max algorithm.
3. Demonstrate advantages and disadvantages of specific algorithms and data structures,
4. determine and demonstrate bugs in program, recognise needed basic operations with data structures
5. Student will be able to choose appropriate data structure as applied to specified problem definition.
6. Student will be able to handle operations like searching, insertion, deletion, traversing mechanism
7. comprehend and select algorithm design approaches in a problem specific manner.
8. Describe and apply advanced data structures and algorithms design techniques to solve computational problems.

BCI204 Introduction to Database Management Systems

Upon successful completion of the course, the students will be able to:

1. Analyse the relational database model that takes a logical view of data.
2. Investigate the relationships between entity and how such relationships are incorporated into the database design process.
3. Develop normalization and ER modelling that are used concurrently to produce a good database design.
4. Recognise the relationships among entities and the attributes of those entities, and in designing an entity relationship diagram to capture those relationships.
5. To investigate about what is database, different types of databases, and why they are valuable assets for decision making. CLO7: Develop a set of queries to handle a specified set of typical user inquiries for information extraction from the database.

BCI223 Data Structures using C LAB

Upon successful completion of the course, the students will be able to:

1. Create methods and programs within the field of procedural programming as well as developing logical and analytical approaches to programming problems independently.
2. Develop independently relevant applications using self logic in the field of programming languages. These methods include performing experiment/programs and interpreting their results.
3. Investigate different concepts of Data Structure in terms of application or project development.
4. Apply his/her knowledge in new areas within field of basic and advanced programming.

BCI224 Introduction to Database Management Systems LAB

Upon successful completion of the course, the students will be able to:

1. CO1: Understand, appreciate and effectively explain the underlying concepts of database technologies
2. Design and implement a database schema for a given problem-domain
3. Populate and query a database using SQL DML/DDL commands.
4. Declare and enforce integrity constraints on a database using a state-of-the-art RDBMS
5. Programming PL/SQL including stored procedures, stored functions, cursors, packages.

BCI231 Networking for Home & Small Business

Upon successful completion of the course, the students will be able to:

1. Small business owners use networking as a means to form relationships with others, in like or related fields, that help to expand their business' ability to find new customers, partner and grow. A key element to effective networking is to make you known.

BCI232 Internet Fundamental

Upon successful completion of the course, the students will be able to:

1. Understand the basics and underlying concepts of internet fundamentals
2. Learn the basics of internet tools like email, online chat, scripting languages.
3. Create awareness about the installation and use of web servers and security & privacy issues of internet

BCI233 Cyber Security

Upon successful completion of the course, the students will be able to:

1. What is cyber security?
2. Cyber Security what is
3. Cyber security is the application of technologies, processes and controls to protect systems, networks, programs, devices and data from cyber attacks. It aims to reduce the risk of cyber attacks and protect against the unauthorised exploitation of systems, networks and technologies.

BCS 201 ENGLISH

Upon successful completion of the course, the students will be able to:

1. Identify and express in English vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in English
4. Narrate clearly ideas, themes in simple standard English

BSS 203 BEHAVIOURAL SCIENCE – II

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT 201 FRENCH – II

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG 201 SPANISH – II

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

FLC 201 CHINESE – II

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100 New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

Third Sem

BCA301 Computer Oriented Statistical & Optimization Methods

Upon successful completion of the course, the students will be able to:

1. Develop the fundamentals and concepts of advantage and disadvantage of each measure and utility of appropriate measure under different circumstances.
2. Examine the description of an engineering design problem to assess whether the solution may be facilitated by an optimization method.
3. Determine mathematically and logically the actions that “players” would take to secure the best outcomes for themselves in a wide array of “games”.
4. How to apply discrete and continuous probability distributions to various business problems.

5. Formulation of optimization models and use the various optimization methods to fulfill the demand allocation under different scenarios.

BCA302 Advance Database Management Systems

Upon successful completion of the course, the students will be able to:

1. To analyse the basics of SQL and construct queries using PL/SQL efficiently and apply object oriented features for developing database .
2. To understand the trigger and stored procedure in database which automatically invokes whenever a special event in the database occurs.
3. Recognise the distributed DBMS which provide other functions including integration of heterogeneous data, query optimization and processing, concurrency control and recovery.
4. Understand the parallel database for solving the problem by splitting database operations into separate tasks.
5. Analyse the Object Oriented (OO) Data Model in DBMS for solving the complex real-world problems and demonstrate the need of a data model that more closely represented the real world.

BCI303 Object Oriented Programming Concepts Using C++

Upon successful completion of the course, the students will be able to:

1. Investigate different concepts of programming approaches in terms of the application or project development.
2. Create methods and programs within the field of procedural programming as well as developing logical and analytical approaches to programming problems independently.
3. Develop independently relevant applications using self logic in the field of programming languages. These methods include performing experiments/programs and interpreting their results.
4. Apply his/her knowledge in new areas within the field of basic and advanced programming.

BCA322 Advance Database Management Systems Lab

Upon successful completion of the course, the students will be able to:

1. After completion of this course, student will be able to identify advance database concepts and database models. Apply and analyze various terms related to transaction management in centralized and distributed database. Produce data modeling and database development process for object –oriented DBMS.

BCI323 Object Oriented Programming Concepts Using C++ Lab

Upon successful completion of the course, the students will be able to:

1. Read and understand Object oriented-based software code of medium-to-high complexity.
2. Use standard and different type of Object oriented libraries when required for implementation.
3. Understand the basic principles of creating Object oriented applications or program.
4. Understand the fundamental concepts of computer science: structure of the computational process, algorithms and complexity of computation.

EVS 001 ENVIRONMENTAL STUDIES

Upon successful completion of the course, the students will be able to:

1. Communicate complex environmental information to both technical and non-technical audiences; Understand and evaluate the global scale of environmental problems; and. Reflect critically on their roles, responsibilities, and identities as citizens, consumers and environmental actors in a complex, interconnected world.

BCI331 Working at a Small-to-Medium Business or ISPs

Upon successful completion of the course, the students will be able to:

1. What are the objectives of SME?
2. The objectives of the small scale industries are: To create more employment opportunities. To help develop the rural and less developed regions of the economy. To reduce regional imbalances

BCI332 Web Designing

Upon successful completion of the course, the students will be able to:

1. Apply critical thinking and problem solving skills required to successfully design and implement a web site.
2. Demonstrate the ability to analyze, identify and define the technology required to build and implement a web site.

BCI333 Advance Technologies in Computer Science

Upon successful completion of the course, the students will be able to:

1. Recognize current and emerging disruptive technologies and their potential to impact social conditions, the economy, and daily life.
2. Compare and contrast current and emerging technologies and their implications for social ethics and the global workplace.
3. Appreciate the unique characteristics of and differences between disruptive technologies and their impacts.
4. Recognize the importance of ethical practices with new technologies.
5. Design a project plan that incorporates a new and emerging technology and illustrates its impact on organizations and industries.

BCS 301 COMMUNICATION SKILLS – I

Upon successful completion of the course, the students will be able to:

1. Students will be able to understand and apply knowledge of human communication and language processes as they occur across various contexts, e.g., interpersonal, intrapersonal, small group, organizational, media, gender, family, intercultural communication, technologically mediated communication, etc

BSS 303 BEHAVIOURAL SCIENCE – III

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT 301 FRENCH – III

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG 301 GERMAN – III

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS 301 SPANISH – III

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

FLC 301 CHINESE – III

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100 New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

Fourth Sem

BCI401 Computer Graphics

Upon successful completion of the course, the students will be able to:

1. Students will be able to use computer graphics and its different application.
2. Define basic graphics workstation working mechanism.
3. Demonstrate advantages and disadvantages of different drawing algorithms,
4. Determine and demonstrate different graphics algorithm implementations.
5. Describe and apply computer graphics algorithms and design different objects using it.

BCI402 Design & Analysis of Algorithms

Upon successful completion of the course, the students will be able to:

1. Define the algorithms time and space complexity and analyze the algorithm.
2. Describe the divide and conquer strategy and its application.
3. Apply algorithms and design techniques to solve problems.
4. Compare different algorithms and find out the best solution according to constraints.
5. Evaluate the problems in different domains.

BCI403 Operating Systems

Upon successful completion of the course, the students will be able to:

1. CLO1: Describe the important computer system resources and the role of operating system in their management policies and algorithms
2. Understand the process management policies and scheduling of processes by CPU
3. Describe and analyse the memory management and its allocation policies.

BCA404 Computer Oriented Numerical Methods

Upon successful completion of the course, the students will be able to:

1. Identify the concepts of numerical analysis, which will able to understand the concept of error analysis, zeros of transcendental equations.
2. Choose appropriate numerical method for treatment of the given problem. CLO 4. Develop the fundamentals and concepts of different mathematical problems and reformulate them in a way that is appropriate for numerical treatment for eg. Solution of ordinary differential equations etc.
3. Apply critical thinking skill to solve numerical differentiation and integration instead of analytical method

BCA405 Software Engineering

Upon successful completion of the course, the students will be able to:

1. To define basic concepts of software development such as requirement analysis, designing, testing and debugging etc.
2. To explain different types of models that can be used to design a software.
3. To design solutions to a given problem and analyze the best one on the basis of parameters like cost, time, knowledge.
4. To apply the various testing techniques and testing tools.
5. To explain the importance of reliability in software development.

BCI421 Computer Graphics Lab

Upon successful completion of the course, the students will be able to:

1. Read and understand Computer graphics code of medium-to-high complexity.
2. Use standard and different type of Graphics libraries when required for implementation.

3. Understand the basic principles of creating Computer Graphics applications or program.
4. Understand the fundamental concepts of computer graphics implementation.

BCI431 Introduction to .NET Technologies

Upon successful completion of the course, the students will be able to:

1. This Introduction to .NET Programming training course provides hands-on experience creating software for Microsoft's .NET (Windows platform) using the Visual Studio development environment.
2. Starting with the most fundamental elements of computer programming, the training evolves to leverage development techniques sufficient to produce a complete web application including the user interface, business logic and data access layers.
3. You learn how to write code using Visual Basic (VB) and C#; create ASP.NET Web applications and process Web forms and build SQL Server databases and access them using ADO.NET.
4. Participants have the choice of using either C# (C Sharp) or VB (Visual Basic) – the Microsoft .NET core languages. Techniques presented include design, code generation, testing and debugging including use of the ASP.NET (Active Server Pages) the SQL Server database.

BCI432 Introduction to Open Source Technologies (PHP, MySQL)

Upon successful completion of the course, the students will be able to:

1. Learn how to create an interactive website, allowing visitors to post and retrieve information provided by you or your site's visitors. In this online course, you'll see how to create dynamic web pages using the PHP programming language and the MySQL database server.
2. During the course, you'll walk through the development of a complete content management system web application. You'll receive clear, step-by-step, instructions demonstrating how to create a complete website capable of dynamically displaying data from a MySQL database.
3. You'll discover how you can allow your site's visitors to add new information to an online database, search through posted data, and create meaningful printed reports. By the end of this course, you'll have plenty of useful code templates that will help you create your very own dynamic, web-based, content management system.

BCI433 Introducing Routing & Switching in the Enterprise

Upon successful completion of the course, the students will be able to:

1. Investigate different concepts of cloud computing in terms of an individual, organization.
2. Create theories, methods and interpretations of theories within the field of cloud computing as
3. well as solving theoretical and practical problems independently. CLO 4. Develop independently relevant methods in research and development in the field of cloud
4. computing. These methods include literature study and performing scientific experiments together with interpreting their results.
5. Apply his/her knowledge in new areas within field of cloud computing

BCA435 Big Data Analytics

Upon successful completion of the course, the students will be able to:

1. Understand the Big Data Platform and its Use cases
2. Provide an overview of Apache Hadoop
3. Provide HDFS Concepts and Interfacing with HDFS
4. Understand Map Reduce Jobs CLO5: Provide hands on Hadoop Eco System
5. Apply analytics on Structured, Unstructured Data. Exposure to Data Analytics with R

BCI441 Introduction to .NET Technologies Lab

Upon successful completion of the course, the students will be able to:

1. This Introduction to .NET Programming training course provides hands-on experience creating software for Microsoft's .NET (Windows platform) using the Visual Studio development environment. Starting with the most fundamental elements of computer programming, the training evolves to leverage development techniques sufficient to produce a complete web application including the user interface, business logic and data access layers. You learn how to write code using Visual Basic (VB) and C#; create ASP.NET Web applications and process Web forms and build SQL Server databases and access them using ADO.NET.
2. Participants have the choice of using either C# (C Sharp) or VB (Visual Basic) – the Microsoft .NET core languages. Techniques presented include design, code generation, testing and debugging including use of the ASP.NET (Active Server Pages) the SQL Server database.

BCI442 - Introduction to Open Source Technologies (PHP, MySql) Lab

Upon successful completion of the course, the students will be able to:

1. Learn how to create an interactive website, allowing visitors to post and retrieve information provided by you or your site's visitors. In this online course, you'll see how to create dynamic web pages using the PHP programming language and the MySQL database server.
2. During the course, you'll walk through the development of a complete content management system web application. You'll receive clear, step-by-step, instructions demonstrating how to create a complete website capable of dynamically displaying data from a MySQL database.
3. You'll discover how you can allow your site's visitors to add new information to an online database, search through posted data, and create meaningful printed reports. By the end of this course, you'll have plenty of useful code templates that will help you create your very own dynamic, web-based, content management system.

BCI443 Introducing Routing & Switching in the Enterprise Lab

Upon successful completion of the course, the students will be able to:

1. This course familiarizes students with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols such as Enhanced Interior
2. Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Hands-on exercises include configuration, installation, and troubleshooting.

BCA444 Big Data Analytics Lab

Upon successful completion of the course, the students will be able to:

1. Understand the Big Data Platform and its Use cases
2. Provide an overview of Apache Hadoop
3. Provide HDFS Concepts and Interfacing with HDFS
4. Understand Map Reduce Jobs CLO5: Provide hands on Hadoop Eco System
5. Apply analytics on Structured, Unstructured Data. Exposure to Data Analytics with R

BCS 401- COMMUNICATION SKILLS – II

Upon successful completion of the course, the students will be able to:

1. Students will be able to understand and apply knowledge of human communication and language processes as they occur across various contexts, e.g., interpersonal, intrapersonal, small group, organizational, media, gender, family, intercultural communication, technologically mediated communication, etc

BSS 403- BEHAVIOURAL SCIENCE – IV

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLT 401 FRENCH – IV

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG 401 GERMAN – IV

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS 401 SPANISH – IV

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

FLC 401 CHINESE – IV

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

Fifth Sem

BCA501 Systems Software

Upon successful completion of the course, the students will be able to:

1. Read and understand Java-based software code of medium-to-high complexity.
2. Use standard and third party Java's API's when writing applications.
3. Understand the basic principles of creating Java applications with graphical user interface (GUI)
4. Understand the fundamental concepts of computer science: structure of the CLO5: computational process, algorithms and complexity of computation.
5. Understand the basic approaches to the design of software applications.
6. Apply the above to design, implement, appropriately document and test a Java application of medium complexity, consisting of multiple classes.

BCI503 Java Programming Lab

Upon successful completion of the course, the students will be able to:

1. Identify the core concepts of Information Technology, both theoretical and applied;
2. Investigate new technologies, tools, practices and standards, and relate to their knowledge domain.
3. Acquaint with design and development tools, and engage in systematic evaluation using current methodologies;
4. Demonstrate the ability to integrate IT knowledge and develop industry oriented projects.

BCI523 Designing & Supporting Computer Network

Upon successful completion of the course, the students will be able to:

1. Network design refers to the planning of the implementation of a computer network infrastructure. Network design is generally performed by network designers, engineers, IT administrators and other related staff. It is done before the implementation of a network infrastructure.

BCI532 Data Warehousing & Data Mining

Upon successful completion of the course, the students will be able to:

1. Understand what data mining is and how data mining can be employed and applied to solve real problems.
2. Recognize whether a data mining solution is a feasible alternative for a specific problem.
3. Apply basic statistics to evaluate the results of data mining models.
4. Develop a comprehensive understanding of how several data mining techniques can be applied to solve problems.
5. Understand the common designs and structures of warehouse systems.

BCI533 Android Programming

Upon successful completion of the course, the students will be able to:

1. Read and understand Java and Kotlin based software code of medium-to-high complexity.
2. Understand the basic principles of creating Android applications with graphical user interface (GUI).
3. Apply the above to design, implement, appropriately document and test an Android application of medium complexity, consisting of multiple activities.
4. Understand activity life cycle, intents and services, UI elements and understand the principles of developing nice user interface.
5. Understand and use Storage in Android, SQLite, build android apps using media and location services.

BCA534 Web Programming

Upon successful completion of the course, the students will be able to:

1. Interpret what is Web programming meaning?
2. Web programming refers to the writing, markup and coding involved in Web development, which includes Web content, Web client and server scripting and network security. The most common languages used for Web programming are XML, HTML, JavaScript, Perl 5 and PHP

BCI541 Designing & Supporting Computer Network Lab

Upon successful completion of the course, the students will be able to:

1. Network design refers to the planning of the implementation of a computer network infrastructure. Network design is generally performed by network designers, engineers, IT administrators and other related staff. It is done before the implementation of a network infrastructure.

BCA542 Data warehousing & Data Mining Lab

Upon successful completion of the course, the students will be able to:

1. visualize, gather information, articulate, analyze, solve complex problems, and make decisions. These are essential to address the challenges of complex and computation intensive problems increasing their productivity.
2. to understand the various kinds of tools.
3. Demonstrate the classification, clustering and etc. in large data sets.
4. Ability to add mining algorithms as a component to the exiting tools.
5. Ability to apply mining techniques for realistic

BCI543 - Android Programming Lab

Upon successful completion of the course, the students will be able to:

1. Read and understand Java and Kotlin based software code of medium-to-high complexity.
2. Understand the basic principles of creating Android applications with graphical user interface (GUI).
3. Apply the above to design, implement, appropriately document and test an Android application of medium complexity, consisting of multiple activities.
4. Understand activity life cycle, intents and services, UI elements and understand the principles of developing nice user interface.
5. Understand and use Storage in Android, SQLite, build android apps using media and location services.

BCA544 Web Programming Lab

Upon successful completion of the course, the students will be able to:

1. What is Web programming meaning?

2. Web programming refers to the writing, markup and coding involved in Web development, which includes Web content, Web client and server scripting and network security. The most common languages used for Web programming are XML, HTML, JavaScript, Perl 5 and PHP

BCS 501 COMMUNICATION SKILLS – III

Upon successful completion of the course, the students will be able to:

1. Students will be able to understand and apply knowledge of human communication and language processes as they occur across various contexts, e.g., interpersonal, intrapersonal, small group, organizational, media, gender, family, intercultural communication, technologically mediated communication, etc

BSS 503 BEHAVIOURAL SCIENCE – V

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT 501 FRENCH – V

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG 501 GERMAN – V

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS 501 SPANISH – V

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

FLC 501 CHINESE – V

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

Sixth Sem

BCA601 Web Technologies

Upon successful completion of the course, the students will be able to:

1. Design and develop animations in flash to be used in webpages in form of sliders, banners, buttons, menu, etc.
2. Design logos and other vector images in coreldraw to be implemented in web pages to make it more attractive and impressive.
3. Learn means of correcting and modifying the raster and vector graphics to suit as per the standards of implementing an image in a webpage using photoshop application.
4. Design a dynamic website using Dreamweaver application using WYSISYG approach.

BCA602 Introduction to Python Technologies

Upon successful completion of the course, the students will be able to:

1. To learn how to use lists, tuples, and dictionaries in Python programs and identify Python object types.
2. To learn how to use indexing and slicing to access data in Python programs
3. Use if-else statements and switch-case statements to write programs in Python to tackle any decision-making scenario
4. To learn how to read and write files in Python.
5. Develop cost-effective robust applications using the latest Python trends and technologies
6. Build systems entire web development process using various tools

BCA621 Web Technologies Lab

Upon successful completion of the course, the students will be able to:

1. Recognize the concept of animation using the adobe flash application.
2. Identify the utility of various tags, properties of html package.
3. Describe problem solving approach through the design and implementation of form and its elements.
4. Apply hands on real time validation using the JavaScript.

BCA622 Introduction to Python Technologies Lab

Upon successful completion of the course, the students will be able to:

1. To learn how to use lists, tuples, and dictionaries in Python programs and identify Python object types.
2. To learn how to use indexing and slicing to access data in Python programs
3. Use if-else statements and switch-case statements to write programs in Python to tackle any decision-making scenario
4. To learn how to read and write files in Python.

5. Develop cost-effective robust applications using the latest Python trends and technologies
6. Build systems entire web development process using various tools



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF INFORMATION TECHNOLOGY (AIIT)

Bachelor of Science (B.Sc.)

Programme Outcome (PO)

PO1: To identify, formulate and analyse complex problems, and to reach substantial conclusions using principles of sciences.

PO2: To apply various statistical tools to research problems and to develop the ability to build statistical knowledge.

PO3: To develop scientific intuition, ability and techniques to tackle problems, either theoretical or experimental in nature.

PO4: To inculcate scientific thinking, awareness and ability to use necessary current techniques, skills and modern tools.

PO5: To understand the impact of scientific solutions on societal and environmental contexts and to demonstrate knowledge of and need for sustainable development.



AMITY UNIVERSITY
— R A J A S T H A N —

Bachelor of Science - Information Technology (B.Sc.IT)

Programme Code: 12049

Duration – 3 Years Full Time

Programme Structure

PROGRAMME STRUCTURE CREDITS SUMMARY
Bachelor of Science - Information Technology (B.Sc.(IT))-2021

Credits UG (3 years/ 6 Semesters)								
Semester	CC	DE	VA	OE	EVS	NTCC	ANDP	Total
I	17	0	04	0	0	0	02	23
II	14	03	04	03	0	0	02	26
III	10	03	04	03	04	03	02	29
IV	13	04	04	03	0	06	02	32
V	11	04	04	03	0	03	02	27
VI	09	0	0	0	0	15	0	24
Total	74	14	20	12	4	27	10	161

Core Courses	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Environmental Science	EVS
Project Work (Non Teaching Credit Course)	NTCC
Anandam Project	ANDP

Program Specific Outcomes (PSOs)

1. Identify the core concepts of Information Technology, both theoretical and applied;
2. Investigate new technologies, tools, practices and standards, and relate to their knowledge domain.
3. Acquaint with design and development tools, and engage in systematic evaluation using current methodologies;
4. Demonstrate the ability to integrate IT knowledge and develop industry oriented projects.

PROGRAM STRUCTURE

Bachelor of Science - Information Technology (B.Sc. IT)

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BSI101	Human Computer Interaction	CC	2	1	-	3
BCI102	Basic Mathematics	CC	2	1	-	3
BCI103	Introduction to Computer Networking	CC	2	1	-	3
BCI104	Programming & Problem Solving through 'C' Language	CC	2	1	-	3
BCI105	Computer Concepts & Problem Solving	CC	2	1	-	3
BCI124	Programming & Problem Solving through 'C' Language LAB	CC	-	-	2	1
BCI125	Computer Concepts & Problem Solving Lab	CC	-	-	2	1
Non Teaching Credit Course (NTCC)						
AND001	Anandam-I	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 101	English	VA	1	-	-	1
BSS 103	Behavioural Science-I (Understanding Self for Effectiveness)	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
TOTAL						23

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BSI201	Fundamentals of E-Commerce	CC	2	1	-	3
BCI202	Introduction to Systems Analysis & Design	CC	2	1	-	3
BCI203	Data Structure using C	CC	2	1	-	3
BCI204	Introduction to Database Management Systems	CC	2	1	-	3
BCI223	Data Structure using C LAB	CC	-	-	2	1
BCI224	Introduction to Database Management Systems LAB	CC	-	-	2	1
DE Elective: Choose any one course from the following courses						
BCI231	Networking for Home & Small Business	DE	2	1	-	3
BCI232	Internet Fundamentals	DE				
BCI233	Cyber Security	DE				
OPEN ELECTIVE						
	OPEN ELECTIVE	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
AND002	Anandam-II	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 201	English	VA	1	-	-	1
BSS 203	Behavioural Science – II (Problem Solving and Creative Thinking)	VA	1			1
FLT 201	Foreign Language - II	VA	2	-	-	2
FLG 201	French					
FLS 201	German					
FLC 201	Spanish					
		TOTAL				26

SUMMER PROJECT – I

THIRD SEMESTER

CODE	COURSE	CATEGORY	L	T	P/FW	CREDIT UNITS
BSI301	Digital & Computer Organization	CC	2	1	-	3
BSI 302	Introduction to Information systems	CC	2	1	-	3
BCI 303	Object Oriented Programming Concepts Using C++	CC	2	1	-	3
BCI 323	Object Oriented Programming Concepts using C ++ Lab	CC	-	-	2	1
EVS001	Environmental Studies	EVS	4	-	-	4
DE Elective: Choose any one course from the following courses						
BCI 331	Working at a small to medium business or ISPs	DE	2	1	-	3
BCI 332	Web Designing	DE				
BCI 333	Advance Technologies in Computer Science	DE				
BSI 334	E- Governance	DE				
OPEN ELECTIVE						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
BSI 351	Summer Project –I	NTCC	-	-	-	3
AND003	Anandam-III	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 303	Behavioural Science - III (Interpersonal Communication and relationship Management)	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language - III French German Spanish Chinese	VA	2	-	-	2
TOTAL						29

FOURTH SEMESTER

CODE	COURSE	CATEGORY	L	T	P/FW	CREDIT UNITS
BCI401	Computer Graphics	CC	2	1	-	3
BCI402	Design & Analysis of Algorithm	CC	2	1	-	3
BCI403	Operating Systems	CC	2	1	-	3
BSI 404	Multimedia Technologies	CC	2	1	-	3
BCI421	Computer Graphics LAB	CC	-	-	2	1
DE Elective: Choose any one course from the following courses						
BCI431	Introduction to .NET Technologies	DE	2	1	-	3
BCI432	Introduction to Open Source Technologies (PHP, MySql)	DE				
BCI433	Introduction Routing & Switching in the Enterprise	DE				
BCI441	Introduction to .NET Technologies Lab	DE	-	-	2	1
BCI442	Introduction to Open Source Technologies (PHP, MySql) LAB	DE				
BCI443	Introduction Routing & Switching in the Enterprise Lab	DE				
OPEN ELECTIVE						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
BSI450	Minor Project	NTCC	-	-	-	6
AND004	Anandam-IV	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 403	Behavioural Science - IV (Group Dynamics & Team Building)	VA	1	-	-	1
FLT 401	Foreign Language - IV	VA	2	-	-	2
FLG 401	French					
FLS 401	German					
FLC 401	Spanish					
	TOTAL					32

SUMMER PROJECT – II

FIFTH SEMESTER

CODE	COURSE	CATEGORY	L	T	P/FW	CREDIT UNITS
BSI501	Software Engineering	CC	2	1	-	3
BCI502	Java Programming	CC	2	1	-	3
BCI503	UNIX Operating System & shell Programming	CC	2	1	-	3
BCI522	Java Programming LAB	CC	-	-	2	1
BCI523	UNIX Operating System & shell Programming Lab	CC	-	-	2	1
DE Elective: Choose any one course from the following courses						
BCI531	Designing & Supporting Computer Network	DE	2	1	-	3
BCI532	Data warehousing & Data Mining	DE				
BCI533	Android Programming	DE				
BCI541	Designing & Supporting Computer Network LAB	DE	-	-	2	1
BCI542	Data warehousing & Data Mining Lab	DE				
BCI543	Android Programming Lab	DE				
OPEN ELECTIVE						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
BSI551	Summer Project – II	NTCC	-	-	-	3
AND005	Anandam-V	ANDP	-	-	-	2
VALUE ADDED COURSES						
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 503	Behavioural Science - V (Individual Society and Nation)	VA	1	-	-	1
FLT 501 FLG 501 FLS 501 FLC 501	Foreign Language - V French German Spanish Chinese	VA	2	-	-	2
	TOTAL					27

SIXTH SEMESTER

CODE	COURSE	CATEGORY	L	T	P/FW	CREDIT UNITS
BSI601	Introduction to Enterprise Resource Planning	CC	2	1	-	3
BSI602	E-Waste Management	CC	2	1	-	3
BSI603	Green Computing	CC	2	1	-	3
Non Teaching Credit Course (NTCC)						
BSI660	Major Project	NTCC	-	-	-	15
	TOTAL					24

COURSE OUTCOMES

BSC IT

First Sem

Upon successful completion of the course, the students will be able to:

1. Understand the principles of human computer interaction
2. Design good user interfaces for end users experience
3. Prototype the human computer interaction design
4. Evaluate the human computer interaction prototype model

BCI102 Basic Mathematics

Upon successful completion of the course, the students will be able to:

1. Identify matrix operations.
2. Understand the meaning of limit , continuity and differentiation.
3. Evaluate a definite integral using the Fundamental Theorem of Calculus.
4. identify a general method for constructing solutions to inhomogeneous linear constant-coefficient Second-order equations.
5. Demonstrate Scalar multiplication, magnitude, Vector multiplication and Simple application of Vectors, slope of straight line, centre, radius and equation of circle.

BCI103 Introduction to Computer Networking

Upon successful completion of the course, the students will be able to:

1. Able to understand the computer networking principals and its applications in our world.
2. To understand how computer networks work, and its fundamentals when implemented for real world.
3. To understand various modulation techniques and how they are used to improve network performance.
4. To be able to understand the working of various network layer protocols such as TCP, IP etc.

BCI104 Computer Concepts and Problem Solving

Upon successful completion of the course, the students will be able to:

1. Recognize the concept of Computer Organization.

2. Identify the utility of various office package tools and their application.
3. Describe problem solving approach through the design and implementation of algorithm.
4. Apply hands on real time development of algorithm based on various techniques.

BCI124 Programming and Problem solving through 'C' Language Lab

Upon successful completion of the course, the students will be able to:

1. Investigate different concepts of programming approaches in terms of application or project development.
2. Create methods and programs within the field of procedural programming as well as developing logical and analytical approaches to programming problems independently.
3. Apply his/her knowledge in new areas within field of basic and advanced programming.
4. Develop independently relevant applications using self logic in the field of programming languages. These methods include performing experiment/programs and interpreting their results.

BCS 101 ENGLISH

Upon successful completion of the course, the students will be able to:

1. Identify and express in English vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in English
4. Narrate clearly ideas, themes in simple standard English

BSS 103 BEHAVIOURAL SCIENCE – I

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FLT 101 FRENCH – I

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG 101 GERMAN – I

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS 101 SPANISH – I

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

FLC 101 CHINESE – I

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100 New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

Second Sem

BCI204 Data Structures using C LAB

Upon successful completion of the course, the students will be able to:

1. Investigate different concepts of Data Structure in terms of application or project development.
2. Create methods and programs within the field of procedural programming as well as developing logical and analytical approaches to programming problems independently.
3. Apply his/her knowledge in new areas within field of basic and advanced programming.
4. Develop independently relevant applications using self logic in the field of programming languages. T
5. methods include performing experiment/programs and interpreting their results.

BCI223 - Introduction to Database Management Systems LAB

Upon successful completion of the course, the students will be able to:

1. Understand, appreciate and effectively explain the underlying concepts of database technologies
2. Design and implement a database schema for a given problem-domain
3. Populate and query a database using SQL DML/DDDL commands.
4. Declare and enforce integrity constraints on a database using a state-of-the-art RDBMS
5. Programming PL/SQL including stored procedures, stored functions, cursors, packages.

BCI224 Networking for Home & Small Business

Upon successful completion of the course, the students will be able to:

1. Small business owners use networking as a means to form relationships with others, in like or related fields, that help to expand their business' ability to find new customers, partner and grow. A key element to effective networking is to make you known.

BCI231 Internet Fundamental

Upon successful completion of the course, the students will be able to:

1. Understand the basics and underlying concepts of internet fundamentals CLO2:
Learn the basics of internet tools like email, online chat, scripting languages .
2. Create awareness about the installation and use of web servers and security & privacy issues of internet

BCI232 Cyber Security

Upon successful completion of the course, the students will be able to:

1. Explain the concepts of confidentiality, availability, and integrity (CIA) in context of Information Assurance
2. Analyze and evaluate the cyber security needs of an organization.
3. Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.
4. Implement cyber security solutions and use of cyber security, information assurance, and cyber/computer forensics software/tools.
5. Comprehend and execute risk management processes, risk treatment methods, and key risk and performance indicators

BCI233 Digital & Computer Organization

Upon successful completion of the course, the students will be able to:

1. Perform basic arithmetic calculations in binary, decimal and hexadecimal number system.
2. Investigate, analyse and synthesise combinational logic circuits and how basic computer components are specified.
3. Analyse the operation of short assembly language programs.
4. Formulate and employ a Karnaugh Map to reduce Boolean expressions and logic circuits to their simplest forms.
5. Develop independently relevant applications using self logic in the field of programming languages. These methods include performing experiment/programs and interpreting their results.

Third Sem

BSI301 Introduction to Information system

Upon successful completion of the course, the students will be able to:

1. Develop independently relevant applications using self logic in the field of programming languages. These methods include performing experiment/programs and interpreting their results.
2. Investigate different concepts of programming approaches in terms of application or project development.
3. Create methods and programs within the field of procedural programming as well as developing logical and analytical approaches to programming problems independently.
4. Apply his/her knowledge in new areas within field of basic programming."

BSI 302 Object Oriented Programming Concepts Using C++

Upon successful completion of the course, the students will be able to:

1. Develop independently relevant applications using self logic in the field of programming languages. These methods include performing experiments/programs and interpreting their results.
2. Investigate different concepts of programming approaches in terms of the application or project development.
3. Create methods and programs within the field of procedural programming as well as developing logical and analytical approaches to programming problems independently.

4. Apply his/her knowledge in new areas within the field of basic and advanced programming. "

BCI 303 Object Oriented Programming Concepts using C ++ Lab

Upon successful completion of the course, the students will be able to:

1. Read and understand Object oriented-based software code of medium-to-high complexity.
2. Use standard and different type of Object oriented libraries when required for implementation.
3. Understand the basic principles of creating Object oriented applications or program.
4. Understand the fundamental concepts of computer science: structure of the computational process, algorithms and complexity of computation."

BCI 331 Web Designing

Upon successful completion of the course, the students will be able to:

1. Apply critical thinking and problem solving skills required to successfully design and implement a web site.
2. Demonstrate the ability to analyze, identify and define the technology required to build and implement a web site"

BCI 332 Advance Technologies in Computer Science

Upon successful completion of the course, the students will be able to:

1. Recognize current and emerging disruptive technologies and their potential to impact social conditions, the economy, and daily life.
2. Compare and contrast current and emerging technologies and their implications for social ethics and the global workplace.
3. Appreciate the unique characteristics of and differences between disruptive technologies and their impacts.
4. Recognize the importance of ethical practices with new technologies."

BCI 333 E- Governance

Upon successful completion of the course, the students will be able to:

1. In-depth understanding of e-governance and the necessary experience to ensure successful implementation of the same. Increased confidence to drive change and operate online management through e-governance within your organisation. Increased knowledge of the latest technologies used for digitisation and modernisation.

BSI 351 Computer Graphics

Upon successful completion of the course, the students will be able to:

1. Students will be able to use computer graphics and its different application.
2. Define basic graphics workstation working mechanism.
3. Demonstrate advantages and disadvantages of different drawing algorithms,
4. Determine and demonstrate different graphics algorithm implementations.
5. Describe and apply computer graphics algorithms and design different objects using i"

Fourth Sem

BCI401 Design & Analysis of Algorithm

Upon successful completion of the course, the students will be able to:

1. Define the algorithms time and space complexity and analyze the algorithm.
2. Describe the divide and conquer strategy and its application.
3. Apply algorithms and design techniques to solve problems.
4. Compare different algorithms and find out the best solution according to constraints.
5. Evaluate the problems in different domains

BCI402 Operating Systems

Upon successful completion of the course, the students will be able to:

1. Describe the important computer system resources and the role of operating system in their management policies and algorithms
2. Understand the process management policies and scheduling of processes by CPU
3. Describe and analyse the memory management and its allocation policies"

BCI403 Multimedia Technologies

Upon successful completion of the course, the students will be able to:

1. To learn the basics of multimedia technologies and protocols and technical aspect of Multimedia Systems.
2. To understand various networking aspects used for multimedia applications.
3. To understand the protocols and standards available for different audio, video, and text applications and their compression technologies.
4. To understand the multimedia data types and the life cycle of multimedia software development. "

BSI 404 Computer Graphics LAB

Upon successful completion of the course, the students will be able to:

1. Read and understand Computer graphics code of medium-to-high complexity.
2. Use standard and different type of Graphics libraries when required for implementation.
3. Understand the basic principles of creating Computer Graphics applications or program.
4. Understand the fundamental concepts of computer graphics implementatio"

BCI433 Introduction to Open Source Technologies (PHP, MySql)

Upon successful completion of the course, the students will be able to:

1. To implement the concept of Content Management System.
2. Write basic PHP scripts that process user input from a web form.
3. Use PHP variables, arrays, loops, conditional statements, and operators.
4. Create and Manipulate the database through PHP .

BCI443 Introduction to Open Source Technologies (PHP, MySql) LAB

Upon successful completion of the course, the students will be able to:

1. To compare between Static and Dynamic content.
2. To implement the concept of File handling.
3. To illustrate the framework of PHP an open source technologies.
4. To develop a Website with database programming in PHP."

Fifth Sem

BCI502 Software Engineering

Upon successful completion of the course, the students will be able to:

1. Design a software development strategy and select appropriate software development for any given software project
2. Design requirements, analysis and design diagrams from requirements to deployment of any given software.
3. Understand ethical obligations while developing a software for a client organization
4. Keeps updated with new trends in software development methodologies "

BCI503 Java Programming

Upon successful completion of the course, the students will be able to:

1. Read and understand Java-based software code of medium-to-high complexity.
2. Use standard and third party Java's API's when writing applications.
3. Understand the basic principles of creating Java applications with graphical user interface (GUI).
4. Understand the fundamental concepts of computer science: structure of the computational process, algorithms and complexity of computation.
5. Understand the basic approaches to the design of software applications.
6. Apply the above to design, implement, appropriately document and test a Java application of medium complexity, consisting of multiple classes.

BCI522 UNIX Operating System & shell Programming

Upon successful completion of the course, the students will be able to:

1. Identify the UNIX file system and its advantages.
2. Describe the essential UNIX commands and shell programming.
3. Apply and compare UNIX administration commands for privilege distribution.
4. Implement different types of shell scripting programming.

BCI523 Java Programming LAB

Upon successful completion of the course, the students will be able to:

1. Read and understand Java-based software code of medium-to-high complexity.
2. Use standard and third party Java's API's when writing applications.
3. Understand the basic principles of creating Java applications with graphical user interface (GUI).
4. Understand the fundamental concepts of computer science: structure of the computational process, algorithms and complexity of computation.
5. Understand the basic approaches to the design of software applications.
6. Apply the above to design, implement, appropriately document and test a Java application of medium complexity, consisting of multiple classes.

BCI531 UNIX Operating System & shell Programming Lab

Upon successful completion of the course, the students will be able to:

1. Identify the UNIX file system and its advantages.
2. Describe the essential UNIX commands and shell programming.
3. Apply and compare UNIX administration commands for privilege distribution.
4. Implement different types of shell scripting programming.

BCI533 Data warehousing & Data Mining

Upon successful completion of the course, the students will be able to:

1. Understand what data mining is and how data mining can be employed and applied to solve real problems.
2. Recognize whether a data mining solution is a feasible alternative for a specific problem.
3. Apply basic statistical to evaluate the results of data mining models.

4. Develop a comprehensive understanding of how several data mining techniques can be applied to solve problems.
5. Understand the common designs and structures of warehouse systems. "

BCI541 Android Programming

Upon successful completion of the course, the students will be able to:

1. Read and understand Java and Kotlin based software code of medium-to-high complexity.
2. Understand the basic principles of creating Android applications with graphical user interface (GUI).
3. Apply the above to design, implement, appropriately document and test an Android application of medium complexity, consisting of multiple activities.
4. Understand activity life cycle, intents and services, UI elements and understand the principles of developing nice user interface.
5. Understand and use Storage in Android, SQLite, build android apps using media and location services.

BCI543 Data warehousing & Data Mining Lab

Upon successful completion of the course, the students will be able to:

1. visualize, gather information, articulate, analyze, solve complex problems, and make decisions. These are essential to address the challenges of complex and computation intensive problems increasing their productivity.
2. to understand the various kinds of tools.
3. Demonstrate the classification, clustering and etc. in large data sets.
4. Ability to add mining algorithms as a component to the exiting tools.
5. Ability to apply mining techniques for realistic data. "

BSI551 Android Programming Lab

Upon successful completion of the course, the students will be able to:

1. Read and understand Java and Kotlin based software code of medium-to-high complexity.
2. Understand the basic principles of creating Android applications with graphical user interface (GUI).

3. Apply the above to design, implement, appropriately document and test an Android application of medium complexity, consisting of multiple activities.
4. Understand activity life cycle, intents and services, UI elements and understand the principles of developing nice user interface.
5. Understand and use Storage in Android, SQLite, build android apps using media and location services.

Sixth Sem

BSI602 Introduction to Enterprise Resource Planning

Upon successful completion of the course, the students will be able to:

1. Provides overview of the E waste management life cycle emphasizing analytical techniques to develop the correct definition of business problems and user requirements.
2. The scale of current and predicted global e-waste, and how much is collected and recycled.
3. Understand the environmental, social and health impacts of unsound e-waste recycling.
4. How electrical product life cycles of can have negative or positive impacts on climate change.
5. Understand and identify the types of valuable materials that can be recycled from various e-waste items.
6. Give examples of environmentally sound recycling good practice.
7. Define What e-waste is and how it is categorized into different types
8. · Describe the role and responsibilities of the various stakeholders."

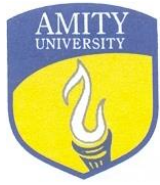
BSI603 E-Waste Management

Upon successful completion of the course, the students will be able to:

1. Introduction to eEnterprise Modelling and Integration of ERP.
2. Supply chain management and ERP.
3. Information Technology Plan for ERP system.
4. SAP Architecture & Other ERP Key Vendors."

Upon successful completion of the course, the students will be able to:

1. To learn the fundamentals of Green Computing this includes the overview, issues, initiatives, and standards worldwide.
2. To analyze the Green computing Grid Framework in terms of minimizing power usage and cooling.
3. To understand the issues related with Green compliance to change the way of work and going paperless.
4. To study and develop various case studies involving recycling, hardware consideration and greening the information system. "



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF INFORMATION TECHNOLOGY (AIIT)

Master of Science (M.Sc.)

Programme Outcome (PO)

PO1: To be able to analyse problems, formulate a hypothesis, evaluate and validate results; acquire capacity to extrapolate from what one has learned and apply the competencies to solve different kinds of non-familiar problems.

PO2: To acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethics in the subject concerned; identify unethical behaviour, plagiarism and acquire knowledge of plagiarism tools.

PO3: To develop analytical reasoning and to evaluate the reliability and relevance of scientific evidence; acquire logical thinking; analyse and synthesise data from a variety of sources with valid interpretations and conclusions.



AMITY UNIVERSITY
— R A J A S T H A N —

MASTER OF SCIENCE (CYBER SECURITY)

(M.Sc.(C.S.))

Programme Code: 121315

Duration – 2 Years Full Time

Programme Structure

PROGRAMME STRUCTURE CREDITS SUMMARY
Master of Science (Cyber Security)

Credits PG (2 years/ 4 Semesters)								
Semester	CC	DE	VA	OE	EVS	NTCC	ANDP	Total
I	11	07	04	0	0	01	02	25
II	11	07	04	03	0	06	02	33
III	10	07	04	03	0	10	02	36
IV	0	0	0	0	0	25	0	25
Total	32	21	12	06	0	42	06	119

Core Courses	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Environmental Science	EVS
Project Work (Non Teaching Credit Course)	NTCC
Anandam Project	ANDP

Program Specific Outcomes (PSOs)

1. Demonstrating advanced knowledge in the field of cyber and information security in general and the following topics: computer and network security, security management, incident response, computational and digital forensics, biometrics, privacy, and security of critical infrastructure. The candidate possesses special insight and can demonstrate expertise in information security technology, digital forensics, or security management, depending on the chosen program track.
2. Apply advanced knowledge of the current state-of-the-art in the field of cyber and information security.
3. To apply knowledge in new areas within cyber and information security, in particular cloud computer security, security on the Internet of Things (IoT) and Cyber Forensic applications.
4. Utilize knowledge of scientific methodology needed to plan and carry out research in the field of cyber and information security under supervision.

PROGRAMME STRUCTURE

Master of Science (Cyber Security)

FIRST SEMESTER

S. No.	Course Title	Category	Lecture (L)	Tutorial (T)	Practical (P)	Total Credits
CORE COURSE (CC)						
MCS101	Mathematical Foundation to Computer Science	CC	2	1	-	3
MCS102	Network Security and Cryptography	CC	2	1	-	3
MCS103	Cyber Security -I	CC	2	1	-	3
MCS122	Network Security and Cryptography Lab	CC	-	-	2	1
MCS123	Cyber Security - I Lab	CC	-	-	2	1
DOMAIN ELECTIVES (DE)						
Elective-I (Without Lab)	Select any ONE					
MCS131	Information Security Risk Assessment and Assurance	DE	2	1	-	3
MCS132	Internet Technology	DE				
MCS133	Digital Hardware Modeling	DE				
Elective-II (WithLab)	Select any ONE					
MCS134	Internet of Things	DE	2	1	-	3
MCS135	Secure Protocol Design	DE				
MCS136	Probability and Statistical Structure	DE				
MCS144	Internet of Things LAB	DE				
MCS145	Secure Protocol Design lab	DE	-	-	2	1
MCS146	Probability and Statistical Structure Lab	DE				
Non Teaching Credit Course (NTCC)						
MCS151	Report on Workshop / Social Work	NTCC	-	-	-	1
AND001	Anandam-I	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS111	Communication Skills-I	VA	1	-	-	1
BSS111	Behavioural Science-I (Self Development and Interpersonal Skills)	VA	1	-	-	1
FLT111	Foreign Language French	VA	2	-	-	2
FLG111	German	VA				
FLS111	Spanish	VA				
FLC111	Chinese	VA				
		VA				
	TOTAL					25

SECOND SEMESTER

S. No.	Course Title	Category	Lecture (L)	Tutorial (T)	Practical (P)	Total Credits
CORE COURSE (CC)						
MCS201	Cyber Forensic	CC	2	1	-	3
MCS202	Cyber Security - II	CC	2	1	-	3
MCS203	Intrusion Detection Systems	CC	2	1	-	3
MCS222	Cyber Security - II Lab	CC	-	-	2	1
MCS223	Intrusion Detection Systems Lab	CC	-	-	2	1
DOMAIN ELECTIVES (DE)						
Elective-I (Without Lab)	Select any ONE					
MCS231	Cyber Laws & Security Policies	DE	2	1	-	3
MCS232	Social Media Security	DE				
MCS233	Biometric Security	DE				
Elective-II (With Lab)	Select any ONE					
MCS234	MATLAB	DE	2	1	-	3
MCS235	Wireless Networks	DE				
MCS244	MATLAB Lab	DE	-	-	2	1
MCS245	Wireless Networks Lab	DE				
OPEN ELECTIVES (OE)						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
MCS250	Minor Project	NTCC	-	-	-	6
AND002	Anandam-II	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS211	Communication Skills-II	VA	1	-	-	1
BSS211	Behavioural Science-II (Behavioural Communication and Relationship Management)	VA	1	-	-	1
FLT211	Foreign Language	VA	2	-	-	2
FLG211	French	VA				
FLS211	German	VA				
FLC211	Spanish	VA				
	Chinese	VA				
	TOTAL					33

THIRD SEMESTER

S. No.	Course Title	Category	Lecture (L)	Tutorial (T)	Practical (P)	Total Credits
CORE COURSE (CC)						
MCS301	Database and Application Security	CC	2	1	-	3
MCS302	Secure Software Engineering	CC	2	1	-	3
MCS303	Ethical hacking and Digital Forensic Tools	CC	2	1	-	3
MCS323	Ethical hacking and Digital Forensic Tools Lab	CC	-	-	2	1
DOMAIN ELECTIVES (DE)						
Elective-I (Without Lab)	Select any ONE					
MCS331	Artificial Intelligence and Neural Network	DE	2	1	-	3
MCS332	Human Computer Interaction	DE				
MCS333	Design and Analysis of Algorithms	DE				
Elective-II (With Lab)	Select any ONE					
MCS334	Principles of Virtualization	DE	2	1	-	3
MCS335	Python	DE				
MCS344	Principles of Virtualization Lab	DE	-	-	2	1
MCS345	Python Lab	DE				
OPEN ELECTIVES (OE)						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
MCS350	Minor Project	NTCC	-	-	-	6
MCS351	Report on Paper Presentation in Conference	NTCC	-	-	-	1
MCS352	Summer Internship Project	NTCC	-	-	-	3
AND003	Anandam-III	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS311	Communication Skills-III	VA	1	-	-	1
BSS311	Behavioural Science-III (Leading Through Teams)	VA	1	-	-	1
FLT311	Foreign Language		2	-	-	2
	French	VA				
FLG311	German	VA				
FLS311	Spanish	VA				
FLC311	Chinese	VA				
	TOTAL					36

FOURTH SEMESTER

S. No.	Course Title	Category	Lecture (L)	Tutorial (T)	Practical (P)	Total Credits
Non Teaching Credit Course (NTCC)						
Elective	Select any ONE					
MCS460	Internship	NTCC	-	-	-	25
MCS461	Project Work	NTCC				
MCS462	Dissertation	NTCC				
	TOTAL					25

COURSE OUTCOMES

MSc Cyber Security

First Sem

MCS101 Mathematical Foundation to Computer Science

Upon successful completion of the course, the students will be able to:

1. Be familiar with set algebra
2. Identified the types of relations and functions
3. Recognize the fundamental properties of groups and subgroups
4. Model problems in Computer Science using graphs and trees
5. Describe the fundamental counting principle and Improve and outline the logical thinking and mathematical logic.

MCS102 Network Security and Cryptography

Upon successful completion of the course, the students will be able to:

1. To be able to design basic security architectures through selection and integration of relevant security components " "CLO1: To get a basic understanding of principles and practice of cryptography and network security
2. To be able to evaluate security of systems with respect to appropriate use of security services and mechanisms "

MCS103 Cyber Security –I

Upon successful completion of the course, the students will be able to:

1. Comprehend the various cyber security tools available to provide proactive and reactive approach to the security in a system and recognize various cyber security attacks and how they happen to help design some form of counter measures to safeguard the security of the system.
2. Understand the basic terminologies associated with database management system with practical implementation in terms of data definition, data manipulation, and data control commands using structured query language concept and to understand the various techniques and strategies to improve the performance and security of a database application. "
3. Understand of how a computer's hardware and software resources are managed by the Operating System with its practical implementation using Linux OS and to understand the

various techniques and strategies to improve the performance and security of an operating system design.

4. Articulate the importance of Information and Access Controls mechanisms for implementation of security in a system. "

MCS122 Network Security and Cryptography Lab

Upon successful completion of the course, the students will be able to:

1. To train more professional in the area of Cyber Security
2. Evaluate security of systems with respect to appropriate use of security services and mechanism
3. To be able to design basic security architectures through selection and integration of relevant security components

MCS123 Cyber Security - I Lab

Upon successful completion of the course, the students will be able to:

1. Investigate different concepts of operating system in terms of application, security or performance.
2. Articulate the importance of Information and Access Controls mechanisms for implementation of security in a system.
3. Apply his/her knowledge in new areas within field of basic and advance system security and reactive approach to the security in a system and recognize various cyber security attacks and how they happen to help design some form of counter measures to safeguard the security of the system.
4. Database management system with practical implementation in terms of data definition, data manipulation, and data control commands using structured query language concept and to understand the various techniques and strategies to improve the performance and security of a database application."

MCS131 Information Security Risk Assessment and Assurance

Upon successful completion of the course, the students will be able to:

1. Describe the concept and principals of security
2. Apply risk assessment concept to audit risk ""
3. Recognize the concept of security risk
4. Identify the utility of to manage security risk

MCS135 Secure Protocol Design

Upon successful completion of the course, the students will be able to:

1. Understand the basic concepts of networkcommunication protocols
2. Design security mechanism for networkcommunication protocols
3. Find vulnerabilitiesin networkcommunication protocols
4. Implementsecured communication protocolsover the networks

MCS136 Probability and Statistical Structure

Upon successful completion of the course, the students will be able to:

1. able to identify sampling size and its implementation
2. understand the basic probability and random variables

MCS144 Internet of Things LAB

Upon successful completion of the course, the students will be able to:

1. able to implement IoT through API python and other softwares

MCS145 Secure Protocol Design lab

Upon successful completion of the course, the students will be able to:

1. Describe the basic concepts of networkcommunication protocols
2. Design security mechanism for networkcommunication protocols
3. Find vulnerabilitiesin networkcommunication protocols
4. Implementsecured communication protocolsover the networks

MCS146 Probability and Statistical Structure Lab

Upon successful completion of the course, the students will be able to:

1. Perform descriptive analyses and common parametric and non-parametric tests with SPSS
2. Perform simple regressions and multivariate analyses (factor and cluster) and Know where to find
3. Understand the main features of SPSS
4. 2. Use the SPSS effectively

Second Sem

MCS231 Cyber Laws & Security Policies

Upon successful completion of the course, the students will be able to:

1. Able to understand the cyber LAW
2. Implement to build their own cyber law

MCS232 Social Media Security

Upon successful completion of the course, the students will be able to:

1. understand the basic of social media working behaviour and its security aspects

MCS233 Biometric Security

Upon successful completion of the course, the students will be able to:

1. Demonstrate knowledge of the basic physical and biological science and engineering principles underlying biometric systems.
2. Understand and analyse biometric systems at the component level and be able to analyse and design basic biometric system applications.
3. Be able to work effectively in teams and express their work, characteristic, strength of Biometric technology and ideas orally and in writing.
4. Identify the sociological and acceptance issues associated with the design and implementation of biometric systems. Understand various Biometric security issues. "

MCS235 Wireless Networks

Upon successful completion of the course, the students will be able to:

"

1. Recognise the wireless networking techniques
2. Identify the tools wireless networking frequency and management
3. Describe the concept of wireless networking multiple access technique and its principles
4. Apply knowledge of wireless networking to implement and design new effective methods

MCS245 Wireless Networks Lab

Upon successful completion of the course, the students will be able to:

"

1. Recognise the wireless networking techniques
2. Identify the tools wireless networking frequency and management
3. Describe the concept of wireless networking multiple access technique and its principles
4. Apply knowledge of wireless networking to implement and design new effective methods

MCS202 Cyber Security - II "

Upon successful completion of the course, the students will be able to:

1. Articulate the importance of secure information system, and the key elements of an information system as well as the scope and objectives of secure information system, implementation of different policies and standards.
2. Understand the basic challenges associated with cyber security as well as risk analysis, learn about the challenges associated with the evolution IOT, AI, and server less App security, ransomware etc.
3. Understand of how a cyber security principals & technology works, importance of data security and VPN and to understand the various techniques and strategies to improve the performance and security of an information system to maintain the core property of cyber security.
4. Comprehend the various cyber security threats to E-payments like ATM Machine, Threats associated with E-Wallet and recognize various cyber security attacks and how they happen to help design some form of counter measures to safeguard the security of the system. "

MCS203 Intrusion Detection System

Upon successful completion of the course, the students will be able to:

1. Articulate the introduction and importance of SNORT, installation of SNORT and the different alert modes of SNORT. Students will also learn and understand the rules and option of SNORT and its working.
2. Understand the basic implementation of ACID with SNORT associated with IDS as well as learn about the different agents development for IDS, Students will also understand and learn about the architecture models of IDs and IPs" "CLO1: Understand the concept and definition of an IDS and its working methodology as well as its different types, different external threats to data and how we detect these by the help of IDS.
3. Comprehend the various types of IPS like network based, Protocol based as well as hybrid-based IDs. Learn about the intrusion analysis model, mapping of responses as well as different types of response from IPS. "

MCS222 Cyber Security - II Lab

Upon successful completion of the course, the students will be able to:

- "1. Investigate different concepts of firewall, IDs and IPs in terms of application, security or performance.
2. Articulate various cyber security threats to E-payments like ATM Machine, Threats associated with E-Wallet and recognize various cyber security attacks and how they happen to help design some form of counter measures to safeguard the security of the system.
3. Apply his/her knowledge in new areas within field of basic and advance system security and reactive approach to the security in a system and recognize various cyber security attacks and how they happen to help design some form of counter measures to safeguard the security of the system.
4. Audit of security policies and risk analysis, Evaluate Risk using Qualitative Risk Analysis tool."

MCS223 Intrusion Detection Systems Lab

Upon successful completion of the course, the students will be able to:

1. Investigate different concepts of firewall, IDs and IPs in terms of application, security or performance.
2. Articulate various cyber security threats to data and organization E-payments like DOS attack, session hijacking, DDoS attack, password guessing and password cracking, penetration testing.
3. Apply his/her knowledge in new areas within field of basic and advance system security and reactive approach to the security in a system and recognize various cyber security attacks and how they happen to help design some form of counter measures to safeguard the security of the system.
4. Understand and learn about the malware, keyloggers, countermeasures, Data packet sniffing web data extraction."

MCS233 Biometric Security

Upon successful completion of the course, the students will be able to:

1. Demonstrate knowledge of the basic physical and biological science and engineering principles underlying biometric systems.
2. Understand and analyse biometric systems at the component level and be able to analyse and design basic biometric system applications.
3. Be able to work effectively in teams and express their work, characteristic, strength of Biometric technology and ideas orally and in writing.
4. Identify the sociological and acceptance issues associated with the design and implementation of biometric systems. Understand various Biometric security issues. "
5. MCS234 MATLAB "1. Ability to express programming & simulation for Computer Science problems as well as basic

BCS 201 ENGLISH

Upon successful completion of the course, the students will be able to:

1. Identify and express in English vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in English
4. Narrate clearly ideas, themes in simple standard English

BSS 203 BEHAVIOURAL SCIENCE – II

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT 201 FRENCH – II

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms

2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG 201 SPANISH – II

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

FLC 201 CHINESE – II

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression

Third Semester

MCS301 DATABASE AND APPLICATION SECURITY

On successful completion of this course, students will be able to:

CLO 1: Design and implement access control rules to assign privileges and to secure data stored in databases.

CLO 2: Conduct database auditing for security and reliability.

CLO 3: Determine and analyse software vulnerabilities and security solutions to reduce the risk of exploitation.

CLO 4: Design a web – application Vulnerability and Security Assessment Test Plan

MCS302 Secure Software Engineering

On successful completion of this course, students will be able to:

- CLO1: Understand of how a secure software engineering is enhance the security of application, how SSDLC is different from SDLC and to understand the various techniques and strategies to detect the software security, managing secure software development.
- CLO 2: Articulate the importance of different properties of secure software, how to assert and specify security properties.
- CLO 3: Comprehend the various secure software architecture and design, risk analysis, threat and risk associated with it, available to provide proactive and reactive approach to the security in a system and recognize various principal, security guideline and attack patterns.
- CLO 4: Understand the basic terminologies associated with cryptography, technique for secure coding, validation rules, software security testing as well as code review process

MCS303 Ethical Hacking & Digital Forensic

On successful completion of this course, students will be able to:

- CLO1: Understand of how a hacking is different from ethical hacking and to understand the various techniques and strategies to perform the window hacking to find the vulnerabilities of the system.
- CLO 2: Articulate the importance of different internet protocols and checksum and importance of port scanning, DNS spoofing, and Firewall.
- CLO 3: Comprehend the various computer frauds, different threat and risk associated with it, available to provide proactive and reactive approach to the security in a system and recognize various threats, frauds and how they happen to help design some form of counter measures to safeguard the security of the system.
- CLO 4: Understand the basic terminologies associated computer forensic with practical implementation in data recovery, creating image file, data finding concept and to understand the various techniques and strategies related to journal risk and control matrix.

MCS323 Ethical Hacking & Digital Forensic Lab

On successful completion of this course, students will be able to

- CLO1: Understand of how a hacking is different from ethical hacking and to understand the various techniques and strategies to perform the window hacking to find the vulnerabilities of the system as well as OWASP top 10 vulnerability.
- CLO 2: Articulate the importance of different internet protocols and checksum and perform different scanning techniques like port scanning, DNS spoofing, to gather the data, implement the Firewall inbound and outbound rules.
- CLO 3: Apply his/her knowledge in the area to make the secure system as well as protect the network by providing the different security solution or patches.
- CLO 4: Understand terminologies associated computer forensic with practical implementation in data recovery, creating image file, data finding concept to find the evidence or proof related to digital crime.

MCS 331 Artificial Intelligence and Neural Network

On successful completion of this course, students will be able to

- CLO1: Able to understand the AI principals and its applications in our world
- CLO 2: To understand how search can be performed using search methods based on AI and how they can be implemented for real world problems
- CLO 3: To understand Predicate logic that has been used to increase precision in describing and studying structures from linguistics and philosophy to mathematics and computer science.
- CLO 4: To be able to understand Fuzzy logic and how it can be use in real world applications to benefit us.

MCS332 HUMAN COMPUTER INTERACTION

On successful completion of this course, students will be able to:

- CLO 1: Describe and apply core theories, models and methodologies from the field of HCI.
- CLO 2: Describe what the user-centered design cycle is and explain how to practice this approach to design interactive software systems
- CLO 3: Analyze the features of interactive systems, and explain how to gauge the usability of digital environments, tools and interfaces
- CLO 4: Design and Implementation of graphical user interfaces with modern software tools using guidelines from human factor theories

MCS-333 Design And Analysis of Algorithm

At the successful completion of this course the student should be able to:

- Define the algorithms time and space complexity and analyze the algorithm.
- Describe the divide and conquer strategy and its application.
- Apply algorithms and design techniques to solve problems.

- Compare different algorithms and find out the best solution according to constraints.
- Evaluate the problems in different domains.

MCS 335 PYTHON

At the successful completion of this course the student should be able to:

1. Recognize the python programming problem solution and its implementation.
2. Identify the tools for python programming.
3. Describe the concept of different library functions and its utilization.
4. Apply knowledge of python programming techniques to solve computer problems.

MCS 345 PYTHON LAB

At the successful completion of this course the student should be able to:

1. Read and understand Python-based software code of medium-to-high complexity.
2. Use standard and different type of Python's libraries when required for implementation.
3. Understand the basic principles of creating Python applications or program.
4. Understand the fundamental concepts of computer science: structure of the computational process, algorithms and complexity of computation.

MCS350 Minor Project

Upon successful completion of the course, the students will be able to:

1. Identify the proposed problem
2. Develop a functional application based on the software design
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

MCS351 Report on Paper Presentation in Conference

Upon successful completion of the course, the students will be able to:

1. Ability to be a multi-skilled with sound technical knowledge.
2. Ability to communicate efficiently.
3. Develop technical report writing and oral presentation skills
4. Prepare the proper documentation for report writing and oral presentation

MCS352 Summer Internship Project

Upon successful completion of the course, the students will be able to:

1. Identify, Define and justify the scope of the proposed problem
2. Propose an optimized solution among the existing solutions
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

BCS311 Communication Skills-III

Upon successful completion of the course, the students will be able to:

1. Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while choosing the appropriate channel of formal communication
3. Apply acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the ease of using appropriate medium of communication."

BSS311 Behavioural Science-III (Leading Through Teams)

Upon successful completion of the course, the students will be able to:

1. Demonstrate knowledge of strategies for developing a healthy interpersonal communication
2. Recognize the importance of transactional analysis, script analysis
3. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competencenecessary for conflict resolution and impression management.
4. Demonstrate knowledge of strategies for developing a healthy interpersonal relationship.

FLT311 French

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG311 German

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text

5. understand a conversation

FLS311 Spanish

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish"

FLC311 Chinese

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

FOURTH SEMESTER

MCS 401 Security Threats & Vulnerabilities

Upon successful completion of the course, the students will be able to:

- CLO1: Understand of threats and vulnerabilities associated with cyber worlds, internal threats, physical threats and to understand the various techniques and strategies to perform the wired and wireless network hacking to find the vulnerabilities of the system.
- CLO 2: Articulate the importance of different prevention and protection techniques and importance of access controls, Biometric basics etc.
- CLO 3: Comprehend the various detection and recovery of threat and vulnerabilities associated with it, available to adoptive cryptography time evolution, security policy guidelines, the asset-security goals continuum. to help design some form of counter measures to multilevel security, multilevel security models, security architectures, quality of security service.
- CLO 4: Understand the basic terminologies associated management and policy considerations. Digital rights management, web hosting , managing a network environment, E-mail and internet use policies etc.

MCS 402 Information and Network Security

Upon successful completion of the course, the students will be able to:

- CLO1: Explain the principles and theories of information and network security
- CLO2: Able to describe layout and creating the understand the different security policies, access control, viruses, etc.
- CLO3: Discuss the ideas from the viewpoint of security of information in terms of business risk, individual privacy and role of public policy.

MCS460 Project Work

Upon successful completion of the course, the students will be able to:

1. Identify the proposed problem
2. Develop a functional application based on the software design
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

MCS461 Internship

Upon successful completion of the course, the students will be able to:

1. Identify, Define and justify the scope of the proposed problem
2. Propose an optimized solution among the existing solutions
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.



AMITY UNIVERSITY
— R A J A S T H A N —

MASTER OF SCIENCE (DATA SCIENCE)

(M.Sc. - D.S.)

Programme Code: 121177

Duration – 2 Years Full Time

Programme Structure

PROGRAMME STRUCTURE CREDITS SUMMARY
Master of Science (Data Science) (M.Sc.(DS))

	Credits PG (2 years/ 4 Semesters)							
Semester	CC	DE	VA	OE	EVS	NTCC	ANDP	Total
I	15	0	04	0	0	01	02	22
II	11	07	04	03	0	04	02	31
III	11	07	04	03	0	08	02	35
IV	0	0	0	0	0	25	0	25
Total	37	14	12	06	0	38	06	113

Core Courses	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Environmental Science	EVS
Project Work (Non Teaching Credit Course)	NTCC
Anandam Project	ANDP

Program Specific Outcomes (PSOs)

1. Develop in depth understanding of the key technologies in data science and business analytics: data mining, machine learning, visualization techniques, predictive modeling, and statistics.
2. Demonstrating practical, hands-on experience with programming languages and tools through lab exercise and project.
3. Apply data science concepts and methods to solve problems in real-world contexts and will communicate these solutions effectively
4. Utilize knowledge in a broad range of methods based on statistics and informatics and can use these for data management, analysis and problem solving.

PROGRAMME STRUCTURE

Master of Science (Data Science) (M.Sc.(DS))

FIRST SEMESTER

Sr. No.	Course Title	Category	Lecture	Tutorial	Practical	Total Credits
Core Courses						
MDS101	Probability and Statistical structures	CC	2	1	-	3
MDS102	Programming with Python	CC	2	1	-	3
MDS103	Data Science -I	CC	2	1	-	3
MDS104	Data Warehousing and Mining	CC	2	1	-	3
MDS122	Programming with Python Lab	CC	-	-	2	1
MDS123	Data Science -I Lab	CC	-	-	2	1
MDS124	Data Warehousing and Mining-Lab	CC	-	-	2	1
Non-Teaching Credit Course (NTCC)						
MDS151	Report on Workshop / Social Work	NTCC	-	-	-	1
AND001	Anandam	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS111	Communication Skills-I	VA	1	-	-	1
BSS111	Behavioural Science-I (Self Development and Interpersonal Skills)	VA	1	-	-	1
FLT111 FLG111 FLS111 FLC111	Foreign Language French German Spanish Chinese	VA	2	-	-	2
Total						22

SECOND SEMESTER

Sr. No.	Course Title	Category	Lecture	Tutorial	Practical	Total Credits
Core Courses						
MDS201	Linear Algebra and Matrices	CC	2	1	-	3
MDS202	Data Science-II with R	CC	2	1	-	3
MDS203	Data Engineering	CC	2	1	-	3
MDS222	Data Science-II with R Lab	CC	-	-	2	1
MDS223	Data Engineering Lab	CC	-	-	2	1
DOMAIN ELECTIVES (DE)						
Elective-I (Without Lab) select anyone 1						
MDS231	Business Analytics	DE	2	1	-	3
MDS232	Pattern Recognition	DE				
Elective-II (With Lab) select anyone 1						
MDS233	Image Analytics	DE	2	1	-	3
MDS234	Data Visualization	DE				
MDS243	Image Analytics Lab	DE	-	-	2	1
MDS244	Data Visualization Lab	DE				
Open Elective						
	Open Elective	OE	2	1	-	3
Non-Teaching Credit Course (NTCC)						
MDS250	Minor Project	NTCC	-	-	-	4
AND002	Anandam	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS211	Communication Skills-II	VA	1	-	-	1
BSS211	Behavioural Science-II (Behavioural Communication and Relationship Management)	VA	1	-	-	1
FLT211	Foreign Language French	VA	2	-	-	2
FLG211	German					
FLS211	Spanish					
FLC211	Chinese					
Total						31

THIRD SEMESTER

Sr. No.	Course Title	Category	Lecture	Tutorial	Practical	Total Credits
Core Courses						
MDS301	Optimization Techniques	CC	2	1	-	3
MDS302	Machine Learning and Deep Learning	CC	2	1	-	3
MDS303	Natural Language Processing	CC	2	1	-	3
MDS322	Machine Learning and Deep Learning Lab	CC	-	-	2	1
MDS323	Natural Language Processing Lab	CC	-	-	2	1
DOMAIN ELECTIVES (DE)						
Elective-I (Without Lab) select anyone						
MDS331	Big Data For Managers	DE	2	1	-	3
MDS332	Data Science And AI For Managers	DE				
Elective-II (With Lab) select anyone						
MDS333	Artificial Intelligence	DE	2	1	-	3
MDS334	Big Data & Analytics using R	DE				
MDS343	Artificial Intelligence Lab	DE	-	-	2	1
MDS344	Big Data & Analytics using R LAB	DE				
Open Elective						
	Open Elective	OE	2	1	-	3
Non Teaching Credit Course (NTCC)						
MDS350	Minor Project	NTCC	-	-	-	4
MDS351	Report on Paper Presentation in Conference	NTCC	-	-	-	1
MDS352	Summer Internship Project	NTCC	-	-	-	3
AND003	Anandam	ANDP	-	-	-	2
VALUE ADDED COURSES (VAC)						
BCS311	Communication Skills	VA	1	-	-	1
BSS311	Behavioural Science-III (Leading Through Teams)	VA	1	-	-	1
FLT311	Foreign Language	VA	2	-	-	2
FLG311	French					
FLS311	German					
FLC311	Spanish Chinese					
	TOTAL					35

FOURTH SEMESTER

S. No.	Course Title	Category	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
Non Teaching Credit Course (NTCC)					
Elective	Select any ONE				
MDS460	Project Work	NTCC	-	-	25
MDS461	Internship	NTCC			
	TOTAL				25

COURSE OUTCOMES

MSc Data Science

First Sem

MDS101 Probability and Statistical structures

Upon successful completion of the course, the students will be able to:

1. Basic probability axioms and rules and the moments of discrete and continuous random variables as well as be familiar with common named discrete and continuous random variables.
2. How to derive the probability density function of transformations of random variables and use these techniques to generate data from various distributions.
3. How to calculate probabilities, and derive the marginal and conditional distributions of bivariate random variables.
4. Conduct hypothesis tests concerning population parameters, using industry standard statistical software, for single and multiple populations, based on sample data
5. How to translate real-world problems into probability models.

MDS102 Programming with Python

Upon successful completion of the course, the students will be able to:

1. When students complete Intro to Programming with Python, they will be able to: Build basic programs using fundamental programming constructs like variables, conditional logic, looping, and functions. Work with user input to create fun and interactive programs.

MDS103 Data Science -I

Upon successful completion of the course, the students will be able to:

1. By the end of this course, students will: Demonstrate advanced skills in data acquisition and management. Demonstrate advanced skills in data analysis techniques using mathematics and statistical principles. Demonstrate advanced skills in data presentation, communication, and visualization.

MDS104 Data Warehousing and Mining

Upon successful completion of the course, the students will be able to:

- 1 Be familiar with mathematical foundations of data mining tools..

2 Understand and implement classical models and algorithms in data warehouses and data mining

3 Characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering.

MDS122 Programming with Python Lab

Upon successful completion of the course, the students will be able to:

1. When students complete Intro to Programming with Python, they will be able to: Build basic programs using fundamental programming constructs like variables, conditional logic, looping, and functions. Work with user input to create fun and interactive programs.

MDS123 Data Science -I Lab

Upon successful completion of the course, the students will be able to:

1. By the end of this course, students will: Demonstrate advanced skills in data acquisition and management.
2. Demonstrate advanced skills in data analysis techniques using mathematics and statistical principles. Demonstrate advanced skills in data presentation, communication, and visualization.

MDS124 Data Warehousing and Mining-Lab

Upon successful completion of the course, the students will be able to:

1 Be familiar with mathematical foundations of data mining tools..

2 Understand and implement classical models and algorithms in data warehouses and data mining
3 Characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering.

MDS151 Report on Workshop / Social Work

Upon successful completion of the course, the students will be able to:

1. Ability to be a multi-skilled with sound technical knowledge.
2. Ability to communicate efficiently.
3. Develop technical report writing and oral presentation skills
4. Prepare the proper documentation for report writing and oral presentation.

AND001 Anandam Reports

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BCS111 Communication Skills-I

Upon successful completion of the course, the students will be able to:

1. Investigate their strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Apply their acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the power of Words.
5. Enhance their technical writing capabilities while also learning about do's and don'ts of technical drafting."

BSS111 Behavioural Science-I (Self Development and Interpersonal Skills)

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT111 French

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG111 German

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS111 Spanish

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish"

FLC111 Chinese

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

MDS201 Linear Algebra and Matrices

Upon successful completion of the course, the students will be able to:

1. Identify matrix operations.
2. Understand the meaning of limit , continuity and differentiation.
3. Evaluate a definite integral using the Fundamental Theorem of Calculus.
4. Identify a general method for constructing solutions to inhomogeneous linear constant-coefficient Second-order equations.

5. Demonstrate Scalar multiplication, magnitude, Vector multiplication and Simple application of Vectors, slope of straight line, centre, radius and equation of circle."

MDS202 Data Science-II with R

Upon successful completion of the course, the students will be able to:

1. Introduction to data science life cycle. In depth knowledge of most popular machine learning techniques. Supervised and unsupervised learning techniques. Real life case studies and simulated projects to sharpen your skill sets.

MDS203 Data Engineering

Upon successful completion of the course, the students will be able to:

1. To learn the fundamentals of data engineering this includes the overview, issues, initiatives, and standards worldwide based on R language implementation.
2. To analyze the data engineering process and Framework in terms of data science with practical implementation with R.
3. To understand the issues related with anomalies and or outliers and its effects on machine learning model with R language solution.
4. To study and develop concepts about Missing values, Reason why they can reduce performance of machine learning model in R programming environment.

MDS222 Data Science-II with R Lab

Upon successful completion of the course, the students will be able to:

1. Introduction to data science life cycle. In depth knowledge of most popular machine learning techniques. Supervised and unsupervised learning techniques. Real life case studies and simulated projects to sharpen your skill sets.

MDS223 Data Engineering Lab

Upon successful completion of the course, the students will be able to:

1. To learn the fundamentals of data engineering this includes the overview, issues, initiatives, and standards worldwide based on R language implementation.
2. To analyze the data engineering process and Framework in terms of data science with practical implementation with R.
3. To understand the issues related with anomalies and or outliers and its effects on machine learning model with R language solution.
4. To study and develop concepts about Missing values, Reason why they can reduce performance of machine learning model in R programming environment.

MDS231 Business Analytics

Upon successful completion of the course, the students will be able to:

1. Understand and critically apply the concepts and methods of business analytics. Identify, model and solve decision problems in different settings. Interpret results/solutions and identify appropriate courses of action for a given managerial situation whether a problem or an opportunity.

MDS232 Pattern Recognition

Upon successful completion of the course, the students will be able to:

1. Explain and compare a variety of pattern classification, structural pattern recognition, and pattern classifier combination techniques. Summarize, analyze, and relate research in the pattern recognition area verbally and in writing.

MDS233 Image Analytics

Upon successful completion of the course, the students will be able to:

1. Apply the definitions of the image classification and analysis problem to common problems in computer vision.
2. Explain the basics of object recognition and image search, object detection techniques, motion estimation, object tracking in video using convolutional filters.

MDS234 Data Visualization

Upon successful completion of the course, the students will be able to:

1. To familiarize students with the stages of the visualization pipeline, including data modeling, mapping data attributes to graphical attributes, perceptual issues, existing visualization paradigms, techniques, and tools, and evaluating the effectiveness of visualizations for specific data, task, and user types.

MDS243 Image Analytics Lab

Upon successful completion of the course, the students will be able to:

1. Apply the definitions of the image classification and analysis problem to common problems in computer vision.
2. Explain the basics of object recognition and image search, object detection techniques, motion estimation, object tracking in video using convolutional filters.

MDS244 Data Visualization Lab

Upon successful completion of the course, the students will be able to:

1. To familiarize students with the stages of the visualization pipeline, including data modeling, mapping data attributes to graphical attributes, perceptual issues, existing visualization paradigms, techniques, and tools, and evaluating the effectiveness of visualizations for specific data, task, and user types.

MDS250 Minor Project

Upon successful completion of the course, the students will be able to:

1. Identify the proposed problem
2. Develop a functional application based on the software design
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

BCS211 Communication Skills-II

Upon successful completion of the course, the students will be able to:

1. Identify essentials components of language
2. Make inferences and predictions about spoken discourse
3. Develop Creative & Literary Sensitivity in global situation
4. Identify features of a reading textbook and utilize them as needed"

BSS211 Behavioural Science-II (Behavioural Communication and Relationship Management)

Upon successful completion of the course, the students will be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT211 French

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG211 German

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS211 Spanish

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish"

FLC211 Chinese

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

MDS301 Optimization Techniques

Upon successful completion of the course, the students will be able to:

1. Learn classical optimization techniques and numerical methods of optimization. Know the basics of different evolutionary algorithms. Explain Integer programming techniques and apply different optimization techniques to solve various models arising from engineering areas.

MDS302 Machine Learning and Deep Learning

Upon successful completion of the course, the students will be able to:

1. To introduce students to the basic concepts and techniques of Machine Learning. To develop skills of using recent machine learning software for solving practical problems. To gain experience of doing independent study and research.

MDS303 Natural Language Processing

Upon successful completion of the course, the students will be able to:

1. Use NLP technologies to explore and gain a broad understanding of text data. Use NLP methods to analyse sentiment of a text document. Use NLP methods to perform topic modelling. Organise and implement a NLP project in a business environment.

MDS322 Machine Learning and Deep Learning Lab

Upon successful completion of the course, the students will be able to:

1. To introduce students to the basic concepts and techniques of Machine Learning. To develop skills of using recent machine learning software for solving practical problems. To gain experience of doing independent study and research.

MDS323 Natural Language Processing Lab

Upon successful completion of the course, the students will be able to:

1. Use NLP technologies to explore and gain a broad understanding of text data. Use NLP methods to analyse sentiment of a text document. Use NLP methods to perform topic modelling. Organise and implement a NLP project in a business environment.

MDS331 Big Data For Managers

Upon successful completion of the course, the students will be able to:

1. What are the objectives of big data? Big data analytics helps organizations harness their data and use it to identify new opportunities. That, in turn, leads to smarter business moves, more efficient operations, higher profits and happier customers."

MDS332 Data Science And AI For Managers

Upon successful completion of the course, the students will be able to:

1. AI is an introductory course in Artificial Intelligence. The goal is to acquire knowledge on intelligent systems and agents, formalization of knowledge, reasoning with and without uncertainty, machine learning and applications at a basic level.

MDS333 Artificial Intelligence

Upon successful completion of the course, the students will be able to:

1. AI is an introductory course in Artificial Intelligence. The goal is to acquire knowledge on intelligent systems and agents, formalization of knowledge, reasoning with and without uncertainty, machine learning and applications at a basic level.

MDS334 Big Data & Analytics using R

Upon successful completion of the course, the students will be able to:

1. Knowledge acquired: Students will get to know
2. fundamental statistical concepts and some of their basic applications in real world.
3. organizing, managing, and presenting data, (3) how to use a wide variety of specific statistical methods, and,
4. computer programming in R.

MDS343 Artificial Intelligence Lab

Upon successful completion of the course, the students will be able to:

1. AI is an introductory course in Artificial Intelligence. The goal is to acquire knowledge on intelligent systems and agents, formalization of knowledge, reasoning with and without uncertainty, machine learning and applications at a basic level.

MDS344 Big Data & Analytics using R LAB

Upon successful completion of the course, the students will be able to:

1. Knowledge acquired: Students will get to know
2. fundamental statistical concepts and some of their basic applications in real world.
3. organizing, managing, and presenting data,
4. how to use a wide variety of specific statistical methods, and,
5. computer programming in R.

MDS350 Minor Project

Upon successful completion of the course, the students will be able to:

1. Identify the proposed problem
2. Develop a functional application based on the software design
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

MDS351 Report on Paper Presentation in Conference

Upon successful completion of the course, the students will be able to:

1. Ability to be a multi-skilled with sound technical knowledge.
2. Ability to communicate efficiently.
3. Develop technical report writing and oral presentation skills
4. Prepare the proper documentation for report writing and oral presentation

MDS352 Summer Internship Project

Upon successful completion of the course, the students will be able to:

1. Identify, Define and justify the scope of the proposed problem
2. Propose an optimized solution among the existing solutions
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

BCS311 Communication Skills-III

Upon successful completion of the course, the students will be able to:

1. Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.

2. Create right selection of words and ideas while choosing the appropriate channel of formal communication
3. Apply acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the ease of using appropriate medium of communication."

BSS311 Behavioural Science-III (Leading Through Teams)

Upon successful completion of the course, the students will be able to:

1. Demonstrate knowledge of strategies for developing a healthy interpersonal communication
2. Recognize the importance of transactional analysis, script analysis
3. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competencenecessary for conflict resolution and impression management.
4. Demonstrate knowledge of strategies for developing a healthy interpersonal relationship"

FLT311 French

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG311 German

Upon successful completion of the course, the students will be able to:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS311 Spanish

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish"

FLC311 Chinese

Upon successful completion of the course, the students will be able to:

1. Read, write and speak approx. 100New Chinese words and understand basic grammar points.
2. Interpret words, phrases and sentences of Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc .
3. Write Chinese characters, simple sentence and a paragraph on Greetings, personal information like self-introduction, family, Hobbies, abilities Expression of gratitude apology etc

MDS460 Project Work

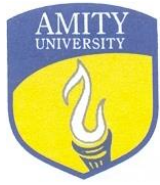
Upon successful completion of the course, the students will be able to:

1. Identify the proposed problem
2. Develop a functional application based on the software design
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.

MDS461 Internship

Upon successful completion of the course, the students will be able to:

1. Identify, Define and justify the scope of the proposed problem
2. Propose an optimized solution among the existing solutions
3. Apply to code, debugging, and testing tools for implementation
4. Prepare the proper documentation for report writing and oral presentation.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF BIOTECHNOLOGY (AIB)

Bachelor of Technology (B.Tech.)

Programme Outcome (PO)

PO1: To apply the knowledge of science and engineering fundamentals.

PO2: To create, select and apply appropriate techniques, resources, modern engineering and IT tools.

PO3: To apply reasoning informed by the contextual knowledge and to assess societal, health and safety related issues as well as legal and cultural issues.

PO4: To apply knowledge in techno- entrepreneurship based industries.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF BIOTECHNOLOGY
(AIB)**

Bachelor of Technology (Biotechnology)

Programme Code: BTB

12041

Duration – 4 Years Full Time

Programme Structure

Credit Summary Sheet

B.Tech Biotechnology						
Semester	CC	DE	VA	NTC C	OE	Total
1	16	3	4	2	-	25
2	16	3	4	2	3	28
3	18	3	4	2	3	30
4	17	3	4	2	3	29
5	18	3	4	2	3	30
6	18	3	4	2	3	30
7	21	3	4	2	-	30
8	20	-	-	-	-	20
Total	144	21	28	14	15	222

Note:- CC – Core Course, VA – Value Added Course, OE – Open Elective, DE – Domain Elective

Program Specific Outcomes (PSOs)

B.Tech Biotechnology is designed to prepare students to attain the following Program Specific Outcomes:

PSO1: To gain an ability to analyze and apply knowledge of Biotechnology, Science and Engineering idea to solve difficulties correlated with the field of Biotechnology and applied sciences and find practical solutions.

PSO2: To develop a scientific and technical approach for designing and performing multidisciplinary experiments, interpretation of data for investigating complex problems and come up with well logical conclusions.

PSO3: To enable them to correlate the biotechnological interventions in societal context keeping in view the sustainable development.

PSO4: To produce individuals with excellent communication and presentation skills, having the capability to innovate and in depth knowledge of information and Biotechnology.

Program Structure

B.Tech Biotechnology: I- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTB101	Applied Mathematics - I	CC	3	1	-	4
BTB102	Applied Physics - I	CC	2	-	-	2
BTB103	Applied Chemistry - I	CC	2	-	-	2
BTB104	Introduction to Computers	CC	2	-	-	2
BTB105	Life Sciences	CC	2	-	-	2
BTB122	Applied Physics - I -Lab	CC	-	-	2	1
BTB123	Applied Chemistry – I- Lab	CC	-	-	2	1
BTB124	Introduction to Computers-Lab	CC	-	-	2	1
BTB125	Engineering Graphics-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTB130	Term Paper	DE	3	-	-	3
BTB131	Chemical Biology	DE				
BTB132	Food Science	DE				
BTB133	Basic and Applied Biotechnology	DE				
BCS 101	English	VA	1	-	-	1
BSS 104	Understanding Self for Effectiveness– I	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
AND001	ANANDAM-I	NTCC	--	--	--	02
	TOTAL					25

B.Tech Biotechnology: II- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTB201	Applied Mathematics - II	CC	3	1	-	4
BTB202	Applied Physics - II	CC	2	-	-	2
BTB203	Applied Chemistry - II	CC	2	-	-	2
BTB204	Object Oriented Programming in C++	CC	2	-	-	2
BTB205	Data Structure & Algorithms	CC	2	-	-	2
BTB222	Applied Physics - II -Lab	CC	-	-	2	1
BTB223	Applied Chemistry - II- Lab	CC	-	-	2	1
BTB224	Object Oriented Programming in C++- Lab	CC	-	-	2	1
BTB225	Data Structure & Algorithms-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTB230	Term Paper	DE	3	-	-	3
BTB231	Plant Science	DE				
BTB232	Biodiversity	DE				
BTB233	Food and Nutrition	DE				
OE	Open Elective-I	OE	3	-	-	3
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioral Science – II	VA	1	-	-	1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language - II French German Spanish Chinese	VA	2	-	-	2
AND002	ANANDAM-II	NTCC	--	--	--	02
	TOTAL					28

B.Tech Biotechnology: III- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTB301	Cell Biology	CC	3	-	-	3
BTB302	Biochemistry - I	CC	2	-	-	2
BTB303	Microbiology	CC	3	-	-	3
BTB304	Basic Bioanalytical Techniques	CC	2	-	-	2
BTB321	Cell Biology-Lab	CC	-	-	2	1
BTB322	Biochemistry – I Lab	CC	-	-	2	1
BTB323	Microbiology Lab	CC	-	-	2	1
BTB324	Basic Bioanalytical Techniques Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTB330	Term Paper	DE	3	-	-	3
BTB331	Biopesticides & Biofertilizers	DE				
BTB332	Industrial Waste Management	DE				
BTB333	Animal Science	DE				
OE	Open Elective-II	OE	3	-	-	3
EVS001	Environmental Sciences	VA	4	-	-	4
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Understanding Self for Effectiveness– III	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language - III French German Spanish Chinese	VA	2	-	-	2
AND003	ANANDAM-III	NTCC	--	--	--	02
	TOTAL					30

B.Tech Biotechnology: IV- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTB401	Biochemistry - II	CC	3	-	-	3
BTB402	Genetics	CC	3	-	-	3
BTB403	Methods & Instrumentation in Biotechnology	CC	2	-	-	2
BTB404	Database Management Systems	CC	2	-	-	2
BTB405	Statistics for Biology	CC	3	-	-	3
BTB421	Biochemistry – II-Lab	CC	-	-	2	1
BTB422	Genetics-Lab	CC	-	-	2	1
BTB423	Methods & Instrumentation in Biotechnology-Lab	CC	-	-	2	1
BTB424	Database Management Systems-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTB430	Term Paper	DE	3	-	-	3
BTB431	Developmental Biology	DE				
BTB432	Industrial Biotechnology	DE				
BTB433	Food Microbiology	DE				
OE	Open Elective-III	OE	3			3
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 404	Understanding Self for Effectiveness– IV	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language - IV French German Spanish Chinese	VA	2	-	-	2
AND004	ANANDAM-IV	NTCC	--	--	--	02
	TOTAL					29

B.Tech Biotechnology: V- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTB501	Molecular Biology	CC	3	-	-	3
BTB502	Java – I	CC	2	-	-	2
BTB503	Plant Biotechnology	CC	3	-	-	3
BTB504	Animal Biotechnology	CC	3	-	-	3
BTB505	Fundamentals of Biochemical Engineering	CC	3	-	-	3
BTB521	Molecular Biology -Lab	CC	3	-	2	1
BTB522	Java - I-Lab	CC	2	-	2	1
BTB523	Plant Biotechnology-Lab	CC	3	-	2	1
BTB524	Animal Biotechnology-Lab	CC	3	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTB530	Term Paper	DE	3	-	-	3
BTB531	Tissue engineering	DE				
BTB532	Cancer Biology	DE				
BTB533	Clinical Microbiology	DE				
BTB 534	Scientific Writing	DE				
OE	Open Elective-IV	OE	3			3
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 504	Understanding Self for Effectiveness– V	VA	1	-	-	1
FLT 501	Foreign Language - V French	VA	2	-	-	2
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
AND005	ANANDAM-V	NTCC	--	--	--	02
	TOTAL					30

B.Tech Biotechnology: VI- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTB601	Recombinant DNA Technology	CC	3	-	-	3
BTB602	Enzymology & Enzyme Technology	CC	3	-	-	3
BTB603	Structural Biology	CC	2	-	-	2
BTB604	Immunology & Immunotechnology	CC	3	-	-	3
BTB605	Bioresource Technology	CC	3	-	-	3
BTB621	Recombinant DNA Technology –Lab	CC	-	-	2	1
BTB622	Enzymology & Enzyme Technology-Lab	CC	-	-	2	1
BTB623	Structural Biology-Lab	CC	-	-	2	1
BTB624	Immunology & Immunotechnology-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTB630	Term Paper & Industry Visit	DE	3	-	-	3
BTB631	Virology	DE				
BTB632	Nanoscience and Nanotechnology	DE				
BTB633	IPR & Drug Regulatory Affairs	DE				
OE	Open Elective-V	OE	3			3
BCS 601	Communication Skills – IV	VA	1	-	-	1
BSS 604	Understanding Self for Effectiveness–V I	VA	1	-	-	1
FLT 601 FLG 601 FLS 601 FLC 601	Foreign Language - VI French German Spanish Chinese	VA	2	-	-	2

AND006	ANANDAM-VI	NTCC	--	--	--	02
	TOTAL					30

Note: After completion of the End Term Examination the students must compulsorily undergo Industrial Training of 6 weeks. The evaluation of this training would be carried out in VII sem.

For domain elective: BTB630- Term Paper & Industry Visit: In addition to term paper Students must compulsorily undergo Industrial Visit (Cluster of 5-6 Industries) for One week and they will be graded on their learning outcome of the visit for one third component of this Term Paper & Industry Visit.

Evaluation will be as follows: Term Paper: 2 Credit (70 Marks); Industry Visit: 1 Credit (30 Marks)

B.Tech Biotechnology: VII- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTB701	Bioprocess Technology	CC	3	-	-	3
BTB702	Downstream Processing	CC	3	-	-	3
BTB703	Entrepreneurship Development	CC	3	-	-	3
BTB704	Genomic & Proteomics	CC	3	-	-	3
BTB705	Pharmaceutical Technology & Biotechnology	CC	3	-	-	3
BTB750	Industrial Training Evaluation	CC	-	-	-	3
BTB721	Bioprocess Technology-Lab	CC	-	-	2	1
BTB722	Downstream Processing-Lab	CC	-	-	2	1
BTB723	Genomic & Proteomics-Lab	CC	-	-	2	1

DE Electives: Student has to select 1 course from the list of following DE electives						
BTB730	Term Paper	DE	3	-	-	3
BTB731	Bioethics & Biosafety	DE				
BTB732	Protein Engineering	DE				
BTB733	Nanotoxicology	DE				
BCS 701	Communication Skills – V	VA	1	-	-	1
BSS 704	Understanding Self for Effectiveness– VII	VA	1	-	-	1
FLT 701	Foreign Language - VII	VA	2	-	-	2
FLG 701	French					
FLS 701	German					
FLC 701	Spanish					
AND007	ANANDAM-VII	NTCC	--	--	--	02
	TOTAL					30

B.Tech Biotechnology: VIII- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTB860	Project /Dissertation	CC	-	-	-	20
	TOTAL					20

COURSE OUTCOMES

AMITY INSTITUTE OF BIOTECHNOLOGY

B.Tech.Biotechnology

BTB 101 - Applied Mathematics

- CO 1 Apply Leibnitz's theorem, Taylor's theorem and mean value theorems.
- CO 2 Find Asymptotes & curvature, tangents & normals, maxima & minima and approximate calculation of a function.
- CO 3 Differentiate the implicit function, partial derivatives of multi-variable functions and differentiation under integration sign.

BTB 102 - Applied Physics-I (FIELDS AND WAVES)

- CO 1 Develop an understanding of the various Concepts of vector analysis and of electrostatics.
- CO 2 Define and understand the various terms and principles involved in SHM
- CO 3 solve simple problems on the applications of wave nature of light.

BTB 103 - Applied Chemistry-I

- CO 1 Investigate: the types of bonds present between molecules, their interaction with each other, their solubility, polarity and structure and orientation in space,
- CO 2 Understand: the working of engines, its efficiency and basic Concepts of thermodynamic processes,
- CO 3 Create: the structure of the organic Compounds by predicting their UV-, IR- & NMR Spectra

BTB 104 - Introduction to Computers

CO 1 Investigate working of various COmponents and applications of COmputer.

CO 2 Apply the principles of procedure-oriented programming for various fields.

CO 3 Create COmputer programs for various applications using C language.

BTB 105 - LIFE SCIENCES

CO 1 Develop foundational knowledge of life sciences.

CO 2 Critically evaluate the current scientific findings and COrrelate it to the theoretical knowledge base.

CO 3 Identify scientific problems and formulate solutions by taking into acCOunt relevant facts.

BTB 122 - Applied Physics-I LAB

CO 1 Learning about experiments of determining wavelength, disperse power, specific rotation

CO 2 Determining speed, width of narrow slit, temperature COefficient

CO 3 Determining resistance, value of acceleration, moment of inertia and density.

BTB 123 - Applied Chemistry-I LAB

CO 1 Demonstration of titration process.

CO 2 Learning about Beer's Law

CO 3 SpectrosCOpic analysis

BTB 124 - Introduction to COmputers- LAB

CO 1 Learning about C programming

CO 2 Fundamentals of C programs, syntax, operators, looping etc

CO 3 File handling

BTB 125 - Engineering Graphics-Lab

CO 1 Developing skills about projections of point and lines

CO 2 Plane figures and solid projections

CO 3 Learning about surface development

BTB 130 - Term Paper

CO 1 Developing skills regarding subjects, material source and notes.

CO 2 Knowledge regarding volumes, articles, e-book, etc.

CO 3 Writing skills of first paper draft

BTB 131 Chemical Biology

CO 1 Investigate about various biological processes involve in synthesis of molecules like DNA, RNA, protein, fats and vitamins.

CO 2 Create projects for development of reaction schema for synthetic and semisynthetic approach.

CO 3 Apply these reaction methods and processes for generation of new testing protocols and novel molecule synthesis.

BTB 133 Basics in Biotechnology

CO 1 Investigate the role of different branches of Biotechnology.

CO 2 Acquire summarize and inferring the field of their interest among the different papers of Biotechnology.

CO 3 Demonstrate the concepts in the field of agriculture, veterinary sciences, pharmaceutical industry and food industry etc.

BCS 101 English

CO 1 Understanding essential vocabulary and grammar

CO 2 Learning about Communication

CO 3 Speaking and writing in English.

BSS 104 – BEHAVIORAL SCIENCE I

CO 1 Learning strategies for development of a healthy self esteem

CO 2 Importance of attitudes and its effect on personality

CO 3 Building Emotional Competence

FLT 101 - French-I

CO 1 Identify and express in French vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes.

CO 3 Demonstrate COmprehension of nuance between script and sound in French

FLG 101 - German-I

CO 1 Identify and express in German vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes.

CO 3 Demonstrate COmprehension of nuance between script and sound in German

FLS 101 - Spanish-I

CO 1 Identify and express in Spanish vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes.

CO 3 Demonstrate COmprehension of nuance between script and sound in Spanish

FLC 101 - Chinese-I

CO 1 Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language

CO 2 Students will be able to read and interpret small texts.

CO 3 Students will be able to COmmunicate in small sentences in writing, self introduction, family description etc.

AND 001 - ANANDAM - 1

CO 1 Awareness and empathy regarding COmmunity issues

CO 2 Interaction with the COmmunity and impact on society

CO 3 Interaction with mentor and development of Student teacher relationship

CO 4 Interaction among students, enlarge social network

BTB 201 - Applied Mathematics-II

CO 1 Solve system of linear equations; be familiar with the definition and properties of matrix; find the eigenvalues and eigenvectors of a square matrix.

CO 2 Investigate the properties of vectors and study their differentiation and integration properties.

CO 3 Calculate the measure of central tendency and doing curve fitting.

BTB 202 - Applied Physics-II

CO 1 Demonstrate basic knowledge of Quantum theory and apply it to other phenomenon as observed in sub-atomic Physics

CO 2 Solve simple problems in Quantum Theory.

CO 3 Identify and analyse the various spectra as observed during electronic transitions

BTB 203 - Applied Chemistry-II

CO 1 Understand water hardness hazards and removal it through water softening techniques.

CO 2 Improve the CFV and octane number of fuel.

CO 3 Develop the biodegradable polymer.

BTB 204 - Object Oriented Programming in C++

CO 1 Apply the principles of object-oriented programming for various fields.

CO 2 Create COmputer programs for various applications using C++ language.

BTB 205 - Data Structure and Algorithms

CO 1 Utilize the information acquired through electronic media to access biological information network and data bases

CO 2 Understand biological functions and then to evaluate genetic diseases, their causes and risks related to human kind.

BTB 222 - Applied Physics-II-LAB

CO 1 Determining wavelength of prominent lines of mercury spectrum

CO 2 Learning about how to determine wavelength of the He-Ne laser light, frequency of electricity.

CO 3 Energy band-gap of germanium crystal etc.

BTB 223 - Applied Chemistry-II-LAB

CO 1 Learning about how to determine viscosity index, flash point and fire point of lubricating oil

CO 2 Chemical Analysis of Water

CO 3 Urea Formaldehyde resin synthesis etc.

BTB 224 - Object Oriented Programming in C++ LAB

CO 1 Demonstrate how to create objects

CO 2 Use of Constructors and destructors. □

CO 3 File handling

BTB 225 - DATA STRUCTURE AND ALGORITHMS -LAB

CO 1 Utilize the information acquired through electronic media to access biological information network and data bases

CO 2 Understand biological functions and then to evaluate genetic diseases, their causes and risks related to human kind.

BTB 230 - Term Paper

CO 1 Developing skills regarding subjects, material source and notes.

CO 2 Writing skills of first paper draft.

CO 3 Knowledge regarding volumes, articles, e-book, etc.

BTB 231 - PLANT SCIENCE

CO 1 Students will be aware of the characters, classification, reproduction and eCOonomic importance of plants.

CO 2 Differentiation of plants belonging to different categories

CO 3 Students will be able to use this knowledge in solving problems related to plants.

BTB 232 - BIODIVERSITY

CO 1 Students will be aware of the scientific nomenclature and classification of biodiversity .

CO 2 Students will be able to understand threats to biodiversity

CO 3 Students will be able to understand different approaches to the COnservation of biodiversities

English BCS 201

CO 1 Learning about COmmunication skills

CO 2 Speaking and writing in English

CO 3 Learning about short stories and poems.

BSS 204 - BEHAVIORAL SCIENCE II

(Problem Solving and Creative Thinking)

CO 1 Understand the process of problem solving and creative thinking.

CO 2 Facilitation and enhancement of skills required for decision-making

French-II FLT 201

CO 1 Identify and express in French vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes.

CO 3 Demonstrate COMprehension of nuance between script and sound in French

German-II FLG 201

COURSE OUTCOMES (CO)

CO 1 Identify and express in German vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes

CO 3 Demonstrate COMprehension of nuance between script and sound in German.

Spanish-II FLS 201

CO 1 Identify and express in Spanish vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes.

CO 3 Demonstrate COMprehension of nuance between script and sound in Spanish

Chinese-II FLC 201

COURSE OUTCOMES (CO)

CO 1 Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language

CO 2 Students will be able to read and interpret small texts .

CO 3 Students will be able to COmmunicate in small sentences in writing, self introduction, family description etc.

ANANDAM - II AND 002

COURSE OUTCOMES (CO)

CO 1 Awareness and empathy regarding COmmunity issues

CO 2 Interaction with the COmmunity and impact on society

CO 3 Interaction with mentor and development of Student teacher relationship

CO 4 Interaction among students, enlarge social network

Cell Biology BTB 301

COURSE OUTCOMES (CO)

CO 1 Introduction, history, types and cell cycle

CO 2 Learning about cell structures, signaling and other mechanism.

CO 3 Knowledge regarding cancer biology

BIOCHEMISTRY-I BTB 302

COURSE OUTCOMES (CO)

CO 1 Understanding of Chemical properties , bonding and interaction of molecules.

CO 2 Introduction to biomolecules

CO 3 Understanding of metabolism of various biomolecules

MICROBIOLOGY BTB 303

COURSE OUTCOMES (CO)

- CO 1 Introduction to microbiology
- CO 2 Structure, function and classification of microbes
- CO 3 pathogenicity

BASIC BIOANALYTICAL TECHNIQUES BTB 304

COURSE OUTCOMES (CO)

- CO 1 Identify and use various instruments and tools for analysis of biological products.
- CO 2 Understand principles, applications and limitations of various bio analytical tools and techniques
- CO 3 COmpare various similar techniques and will be able to understand importance of one technique over other

CELL BIOLOGY LAB BTB 321

COURSE OUTCOMES (CO)

- CO 1 MicrosCOpes and it's types
- CO 2 Experimentations about plant, animal, onion cells
- CO 3 Study about mechenisms like mitosis, meiosis , osmosis

BIOCHEMISTRY-I LAB BTB 322

COURSE OUTCOMES (CO)

- CO 1 COlorimetric analysis
- CO 2 Quantitative estimations

CO 3 Estimation of sugars, cholesterol, fatty acids

MICROBIOLOGY LAB BTB323

COURSE OUTCOMES (CO)

CO 1 Media preparation

CO 2 Isolation of microbes and staining COnccept

CO 3 MicrosCOpic examination

COMPUTER LAB-I BTB 324

COURSE OUTCOMES (CO)

CO 1 Preparations of lab reagents

CO 2 Learning of Basic lab techniques and instruments

TERM PAPER BTB 330

COURSE OUTCOMES (CO)

CO 1 Developing skills regarding subjects, material source and notes.

CO 2 Writing skills of first paper draft.

CO 3 Knowledge regarding volumes, articles, e-book, etc.

TERM PAPER BTB 331

COURSE OUTCOMES (CO)

CO 1 Develop a clear understanding of the multifarious roles of microorganisms in soil, in association with plants and thus in the field of agriculture.

CO 2 Discuss the use of microbes in sustainable agriculture namely role in nitrogen fixation, as bio fertilizers, as bio pesticides

CO 3 Illustrate the role of bio-fertilizers in quality parameters of various agricultural products and key role of bio-fertilizer in maintain soil health

INDUSTRIAL WASTE MANAGEMENT BTB 332

COURSE OUTCOMES (CO)

CO 1 Information regarding polluting potential of major industries

CO 2 Approaches of waste management

CO 3 Gather knowledge about various treatment techniques

ANIMAL SCIENCE BTB333

COURSE OUTCOMES (CO)

CO 1 Clear and vivid understanding of invertebrates and vertebrates.

CO 2 Discuss the characteristics and unique features of all higher invertebrates and vertebrates.

CO 3 Have a clear understanding of distinct traits of invertebrates and vertebrates

ENVIRONMENTAL SCIENCES

EVS001

COURSE OUTCOMES (CO)

- CO 1 Understand the importance, need and sCOpe of the subject.
- CO 2 Evaluate local, regional and global environmental topics related to resource use and management.
- CO 3 Measure environmental variables and interpret results
- CO 4 Interpret the results of scientific studies of environmental problems and propose solutions to these.
- CO 5 Implement “Sustainable development”, in day to day activities.

COMMUNICATION SKILLS-I BCS 301

COURSE OUTCOMES (CO)

- CO 1 Develop general writing skills.
- CO 2 Develop letter writing skills.
- CO 3 Learning about how to write reports.

Behavioral science III Understanding Self for Effectiveness-III

(Interpersonal COmmunication) BSS 304

COURSE OUTCOMES (CO)

- CO 1 Enhancing personal effectiveness and performance through effective interpersonal COmmunication
- CO 2 Enhancing their CONflict management and negotiation skills

Course Name COurse COde LTP Credit Semester

FRENCH-III FLT 301 2:0:0 2 3

COURSE OUTCOMES (CO)

- CO 1 Identify and express in French vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes.

CO 3 Demonstrate COmprehension of nuance between script and sound in French

GERMAN-III FLG 301 4:0:0 2 3

CO 1 Students will be able to ask and tell time

CO 2 Interpret different types of texts as well as cultural ideas and themes, daily routine using Separable verbs.

CO 3 Demonstrate Student will be able to write and speak sentences using modal verbs.

SPANISH-III FLS 301

COURSE OUTCOMES (CO)

CO 1 Introduction of stem changing irregular verbs

CO 2 Introduction of prepositions (Cerca de/ lejos de/ encima de etc.)

CO 3 Present COntinuous tense (Estar+ gerundio)

CHINESE-III FLC 301

COURSE OUTCOMES (CO)

CO 1 Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language

CO 2 Students will be able to read and interpret small texts .

CO 3 Students will be able to COmmunicate in small sentences in writing, self introduction, family description etc.

ANANDAM - III AND 003

COURSE OUTCOMES (CO)

- CO 1 Awareness and empathy regarding COmmunity issues
- CO 2 Interaction with the COmmunity and impact on society
- CO 3 Interaction with mentor and development of Student teacher relationship
- CO 4 Interaction among students, enlarge social network

Course Name	COurse COde	LTP	Credit	Semester
BIOCHEMISTRY-II	BTB 401	3:0:0	3	4

COURSE OUTCOMES (CO)

- CO 1 Understanding of Proteins, nucleotides and Amino Acid Metabolism
- CO 2 Introduction of enzyme kinetics and enzyme inhibition

GENETICS BTB 402

COURSE OUTCOMES (CO)

- CO 1 Understanding of the basic principles of genetics inCOrporating the COnccepts of classical, molecular and population genetics
- CO 2 Analysis of recent advances in genetic principles for strong foundation in Biotechnology.

BTB 403 - METHODS AND INSTRUMENTATION IN
BIOTECHNOLOGY

CO 1 Understanding of techniques and experiments used in biotech industries

CO 2 Detailed understanding of Electrophoresis, Chromatography and Spectroscopy

Database Management Systems BTB 404

COURSE OUTCOMES (CO)

CO 1 Investigate about various publicly available databases and will be able to design the data attributes for storing information.

CO 2 Create new projects by applying various database concepts to investigate existing data design and can address issues by applying novel methods

CO 3 Apply these data sources and compile to design novel biological data resources.

STATISTICS FOR BIOLOGY BTB 405

COURSE OUTCOMES (CO)

CO 1 Understanding of Mean, median and mode

CO 2 Analysis of Statistical distribution

CO 3 Application of statistical methods applied to biological data

BIOCHEMISTRY-II LAB BTB 421

COURSE OUTCOMES (CO)

CO 1 Biochemical Analysis of proteins, DNA and RNA

CO 2 Spectrophotometric estimation of proteins.

CO 3 Study of enzyme activity

Course Name Course COde LTP Credit Semester

GENETICS LAB BTB 422

COURSE OUTCOMES (CO)

CO 1 Understanding of pedigree analysis

CO 2 Analysis of Molecular Markers

CO 3 Demonstration of Gene Mapping

METHODS AND INSTRUMENTATION IN BIOTECHNOLOGY LAB BTB 423

COURSE OUTCOMES (CO)

CO 1 Understanding of Basic Biotechnological Techniques

CO 2 Demonstration of PCR and ELISA

Course Name Course COde LTP Credit Semester

DATABASE MANAGEMENT LAB BTB 424

COURSE OUTCOMES (CO)

CO 1 Database creation using different tools

CO 2 Use of SQL and Perl in data analysis

TERM PAPER BTB430

COURSE OUTCOMES (CO)

CO 1 Developing skills regarding subjects, material source and notes.

CO 2 Writing skills of first paper draft.

CO 3 Knowledge regarding volumes, articles, e-book, etc.

Course Name	Course Code	LTP	Credit	Semester
DEVELOPMENTAL BIOLOGY	BTB431	3:0:0	3	4

COURSE OUTCOMES (CO)

CO 1 To enable the students, understand the process of development in various animals

CO 2 To understand the genetic involvement and the role of maternal environment on fetal development

INDUSTRIAL BIOTECHNOLOGY - BTB432

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire industrial skills

CO 2 Make students understand biotechnological processes including Bioprocess engineering, downstream processing and fermentation technology

COMMUNICATION SKILLS-II BCS 401

COURSE OUTCOMES (CO)

CO 1 Development of social Communication skills

CO 2 Learning about Context based speaking.

CO 3 Professional skills development.

BEHAVIORAL SCIENCE IV IV (Relationship Management) BSS 404

COURSE OUTCOMES (CO)

CO 1 To understand the basis of interpersonal relationship

CO 2 To understand various Communication style

CO 3 To learn the strategies for effective interpersonal relationship

FRENCH-IV FLT 401

COURSE OUTCOMES (CO)

CO 1 Identify and express in French vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes.

CO 3 Demonstrate COmprehension of nuance between script and sound in French

GERMAN-IV FLG 401

COURSE OUTCOMES (CO)

CO 1 Students will be able to understand tenses

CO 2 Interpret different types of texts as well as cultural ideas and themes, daily routine using Separable verbs.

CO 3 Demonstrate Student will be able to write and speak sentences using modal verbs.

SPANISH-IV FLS 401

COURSE OUTCOMES (CO)

CO 1 Identify and express in Spanish vocabulary and grammar norms

CO 2 Interpret different types of texts as well as cultural ideas and themes.

CO 3 Demonstrate COmprehension of nuance between script and sound in Spanish

CHINESE-IV FLC 401

COURSE OUTCOMES (CO)

CO 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language

CO 2 Students will be able to read and interpret small texts of intermediate level.

CO 3 Students will be able to Communicate in small sentences in Simple Future and Past tenses .

ANANDAM - IV - AND 004

COURSE OUTCOMES (CO)

CO 1 Awareness and empathy regarding Community issues

CO 2 Interaction with the Community and impact on society

CO 3 Interaction with mentor and development of Student teacher relationship

CO 4 Interaction among students, enlarge social network

MOLECULAR BIOLOGY BTB 501

COURSE OUTCOMES (CO)

CO 1 CO 1 Understand process of replication, transcription, and translation.

CO 2 CO 2 Understand the antisense/ ribozyme technology, and the techniques of molecular biology.

JAVA – 1 BTB 502

COURSE OUTCOMES (CO)

CO 1 1. Define object oriented terminology and JAVA programming Concepts

CO 2 Illustrate the role of inheritance, packages and interface to solve programming problems

CO 3 Apply Exception handling for avoiding the run time errors

CO 4 Apply the COnccept of multithreading to increase the execution speed of an application

Plant Biotechnology BTB 503

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire knowledge of plant biotechnology

CO 2 Make students understand biotechnological processes including plant tissue culture

ANIMAL BIOTECHNOLOGY BTB 504

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire animal laboratory skills

CO 2 Make students understand biotechnological processes including animal biotechnology

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire knowledge of Fermenter

CO 2 Understand COmponents of Bioreactor

CO 3 COntrol of Bioprocess

MOLECULAR BIOLOGY LAB BTB 521

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire laboratory skills

CO 2 Make students understand isolation of DNA

CLO3 Understand extraction of COmpetent cells

JAVA-1 LAB - BTB 522

COURSE OUTCOMES (CO)

CO 1 Attempting algorithmic solutions to problems

CO 2 Designing and COding of different OOPs COnccepts.

CO 3 Reading, understanding and modifying COde written by others

PLANT BIOTECHNOLOGY LAB BTB 523

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire skills for plant tissue culture

CO 2 Make students understand biotechnological processes for designing culture media

CO 3 Understand the viability of seeds

ANIMAL BIOTECHNOLOGY LAB BTB 524

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire animal laboratory skills

CO 2 Make students understand standardization of culture media

TERM PAPER BTB530

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire research skills

CO 2 Make students understand writing review articles

TISSUE ENGINEERING BTB 531

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire tissue engineering skills

CO 2 Make students understand importance of bioengineered tissues

CANCER BIOLOGY BTB 532

COURSE OUTCOMES (CO)

CO 1 To enable students knowledge about cancer

CO 2 Make students understand cellular immortalization

CLINICAL MICROBIOLOGY BTB 533

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire clinical microbiology skills

CO 2 Make students understand public health microbiology

SCIENTIFIC WRITING BTB 534

COURSE OUTCOMES (CO)

CO 1 To enable students, science research issues

CO 2 Make students understand critical group discussions

COMMUNICATION SKILLS – III BCS 501

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire linguistic skills

CO 2 Make students excel in academic field

BEHAVIORAL SCIENCE - V -- BSS 505

(GROUP DYNAMICS AND TEAM BUILDING)

COURSE OUTCOMES (CO)

CO 1 To enable students, an elementary level of understanding of group/team functions

CO 2 develop team spirit and to know the importance of working in teams

FRENCH – V FLT 501

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

GERMAN – V FLG 501

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

SPANISH – V FLS 501

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

CHINESE – V FLC 501

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

ANANDAM - V AND 005

COURSE OUTCOMES (CO)

- CO 1 Awareness and empathy regarding COmmunity issues
- CO 2 Interaction with the COmmunity and impact on society
- CO 3 Interaction with mentor and development of Student teacher relationship
- CO 4 Interaction among students, enlarge social network

RECOMBINANT DNA TECHNOLOGY BTB601

COURSE OUTCOMES (CO)

- CO 1 To study the process of cloning, and producing blunt and COhesive ends using restriction enzyme, how different enzyme can be used in modifying DNA
- CO 2 To study the various cloning vector used in gene cloning, to identify the reCOmbinant clones,
and to express the reCOmbinant protein and its purification using tags
- CO 3 To understand primer designing for PCR amplification, understanding about basic PCR techniques and DNA sequencing
- CO 4 To COnstruct and screen the genomic and cDNA library employing DNA-DNA hybridization and
immuno-screening techniques To design and investigate various methods used in characterizing protein structure and function

ENZYMOMOLOGY AND ENZYME TECHNOLOGY BTB 602

COURSE OUTCOMES (CO)

CO 1 To enable students, theoretical understanding of biochemical systems

CO 2 Make students understanding of the principles and application of proteins

STRUCTURAL BIOLOGY BTB 603

COURSE OUTCOMES (CO)

CO 1 Understand various aspects of protein structure and function including protein folding, degradation, molecular interactions, and reCOgnition.

CO 2 Identify key experimental processes required to evaluate protein structure, function and knowledge of how to apply them to solve specific biochemical problems.CO 3 Investigate and explain enzyme mechanisms in a structural COntext and to describe mechanisms of protein folding and COnccept of molten globule.

CO 4 Understand the evolution of protein structural motifs and domains and associate this with function.

IMMUNOLOGY AND IMMUNOTECHNOLOGY BTB604

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire importance of immuno genetics

CO 2 Make students understand Role of antibody engineering in biomedical applications

Bioresource Technology BTB 605

COURSE OUTCOMES (CO)

CO 1 acquaint the students with bioresources

CO 2 Make students understand current status and recent developments of bioresources

RECOMBINANT DNA TECHNOLOGY LAB BTB 621

COURSE OUTCOMES (CO)

CO 1 Develop practically skills of reCOmbinant DNA technology and apply various methods used in reCOmbinant DNA technology

CO 2 Understand key experimental processes required to amplify a gene, ligate and digest a gene of interest

CO 3 Demonstrate and explain different methods used for transformation

CO 4 Understand the process of reCOmbinant protein production

ENZYMولوجY AND ENZYME TECHNOLOGY LAB BTB 622

COURSE OUTCOMES (CO)

CO 1 To enable students, to isolate enzymes from different sources

CO 2 Make students understand kinetic parameters which have immense importance in industrial processes.

INDUSTRIAL BIOTECHNOLOGY BTB432

COURSE OUTCOMES (CO)

CO 1 CLO1: Develop practically skills to apply various methods used for crystallization of proteins.

CO 2 Investigate key experimental processes required to evaluate protein solubility, precipitation and protein degradation

CO 3 Demonstrate different software used for structure visualization of protein.

CO 4 Understand and observe the interactions between the protein and its substrate of its inhibitor

TERM PAPER & INDUSTRY VISIT BTB 630

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire writing skills

CO 2 Make students understand development of research and its applications

VIROLOGY BTB 631

COURSE OUTCOMES (CO)

CO 1 To enable students, overview of the various viruses affecting living beings

CO 2 Make students understand vision about the viruses, their classification

Nanoscience and Nanotechnology BTB 632

CO 1 Understand different nanostructured materials.

CO 2 Understand the working principle of the instruments used in characterizing the nanomaterials

CO 3 Understand the applications and societal implications of nanomaterials

IPR & Drug Regulatory Affairs BTB 633

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire patenting skills

CO 2 Make students understand IPR

COMMUNICATION SKILLS – IV BCS 601

COURSE OUTCOMES (CO)

CO 1 To enable students, enhance the skills needed to work

CO 2 Make students understand English-speaking global business environment

BEHAVIORAL SCIENCE VI UNDERSTANDING SELF FOR EFFECTIVENESS - VI
(STRESS AND COPING STRATEGIES) BTB432

COURSE OUTCOMES (CO)

CO 1 To enable students, develop an understanding the COnccept of stress

CO 2 Make students understand the COnsequences of the stress

FRENCH – VI FLT 601

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

GERMAN – VI FLG 601

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

SPANISH – VI FLS 601

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

CHINESE – VI FLT 601

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

ANANDAM - VI AND 006

COURSE OUTCOMES (CO)

- CO 1 Awareness and empathy regarding COmmunity issues
- CO 2 Interaction with the COmmunity and impact on society
- CO 3 Interaction with mentor and development of Student teacher relationship
- CO 4 Interaction among students, enlarge social network

BIOPROCESS TECHNOLOGY BTB701

COURSE OUTCOMES (CO)

- CO 1 To enable students, acquire industrial skills
- CO 2 Make students understand biotechnological processes including Bioprocess engineering, downstream processing and fermentation technology

DOWNSTREAM PROCESSING BTB 702

COURSE OUTCOMES (CO)

- CO 1 To enable students, acquire knowledge of product extraction

CO 2 Make students understand biotechnological processes including downstream processing

ENTREPRENEURSHIP DEVELOPMENT BTB 703

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire Entrepreneurship skills

CO 2 Make students understand and develop required entrepreneurship skills

Course Name Course COde LTP Credit Semester

GENOMIC AND PROTEOMICS BTB 704 3:0:0 3 7

COURSE OUTCOMES (CO)

CO 1 Enhancement of understanding of the molecular basis of gene structure, expression and regulation in prokaryotes and eukaryotes

CO 2 Integrate skills in solving problems and analyzing data using a molecular and genetic approach

CO 3 Develop theoretical and technical skills required for industrial and scientific application of proteins

PHARMACEUTICAL TECHNOLOGY AND BIOTECHNOLOG BTB 705

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire representative pharmaceutical dosage forms

CO 2 Make students understand quality pharmaceutical manufacturing

INDUSTRIAL TRAINING EVALUATION BTB 750

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire industrial skills

CO 2 Make students understand biotechnological processes including Bioprocess engineering, downstream processing and fermentation technology in industry

BIOPROCESS TECHNOLOGY LAB BTB 721

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire industrial skills

CO 2 Make students understand biotechnological processes including Bioprocess engineering, downstream processing and fermentation technology

DOWNSTREAM PROCESSING LAB BTB 722

COURSE OUTCOMES (CO)

CO 1 To enable students, extraction of biological products

CO 2 Make students understand biotechnological processes including downstream processing

GENOMICS AND PROTEOMICS LAB BTB 723

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire knowledge of Three dimensional Structures

CO 2 Make students understand genomic and proteomic

TERM PAPER BTB 730

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire writing skills

CO 2 Make students understand and develop research writing skills

COurse Name COurse COde LTP Credit Semester

BIOETHICS & BIOSAFETY BTB731

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire knowledge of biosafety and bioethics

CO 2 Make students understand public acceptance of GMO foods

PROTEIN ENGINEERING BTB 732

COURSE OUTCOMES (CO)

CO 1 Understand various aspects of protein structure and engineering including rational design and directed evolution.

CO 2 Identify key experimental processes required for engineering a protein, and knowledge of how to apply them to solve specific biochemical problems

CO 3 Investigate and explain heterologous expression of proteins and also techniques for protein design.

CO 4 Describe the various screening techniques used for selection and/or screening of novel protein variants with improved properties.

AMITY INSTITUTE OF BIOTECHNOLOGY (AIB)

NANOTOXICOLOGY BTB 733

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire the fundamental principles of nanotoxicity

CO 2 Make students understand nanoparticles in the environment

COMMUNICATION SKILLS - V BCS 701

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire Academic Language Proficiency

CO 2 Make students understand functional language to excel in their profession.

BEHAVIORAL SCIENCE VII

(INDIVIDUAL, SOCIETY AND NATION)

BSS 704

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire knowledge of individual differences

CO 2 Make students understand importance of individual differences

FRENCH – VII FLT 701

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

GERMAN – VII FLG 701

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

SPANISH – VII FLT 701

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

CHINESE – VII FLC 701

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire foreign language skills

CO 2 Make students understand importance of III Language

ANANDAM - VII AND 007

COURSE OUTCOMES (CO)

CO 1 Awareness and empathy regarding COmmunity issues

CO 2 Interaction with the COmmunity and impact on society

CO 3 Interaction with mentor and development of Student teacher relationship

CO 4 Interaction among students, enlarge social network

Project /Dissertation BTB 860

COURSE OUTCOMES (CO)

CO 1 To enable students, acquire industrial skills

CO 2 Make students understand biotechnological processes including Bioprocess engineering, downstream processing and fermentation technology



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF BIOTECHNOLOGY
(AIB)**

Bachelor of Technology (Bioinformatics)

Program Code: BTF

12042

Duration – 4 Years Full Time

Program Structure

Credit Summary Table

B. Tech Program Bioinformatics					
Semester	CC	DE	VA	OE	Total
1	16	3	6	-	25
2	16	3	6	3	28
3	18	3	6	3	30
4	18	3	6	3	30
5	17	3	6	3	29
6	18	3	6	3	30
7	20	3	6	-	29
8	20	-	-	-	20
Total	143	21	42	15	221

**Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective,
FW - Field Work**

Program Specific Outcomes (PSOs)

PSO1: Know how biological data is generated, organized, and retrieved for use.

PSO2: Analyze biological data (including omics data) using bioinformatics tools for predictive and comparative analysis.

PSO 3: Hypothesize for improvement in working of existing tools and developing new software for biological data interpretation.

PSO 4: To work with Bioinformatics, Biotech and IT Industries.

Program Structure

B. Tech. Bioinformatics

Semester I						
Code	Course	Category	L	T	P/FW	Credit
BTF 101	Applied Mathematics - I	CC	3	1	-	4
BTF 102	Applied Physics - I	CC	2	-	-	2
BTF 103	Applied Chemistry - I	CC	2	-	-	2
BTF 104	Introduction to Computers	CC	2	-	-	2
BTF 105	Life Sciences	CC	2	-	-	2
BTF 122	Applied Physics - I Lab	CC	-	-	2	1
BTF 123	Applied Chemistry – I Lab	CC	-	-	2	1
BTF 124	Introduction to Computers Lab	CC	-	-	2	1
BTF 125	Engineering Graphics Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTF 130	Term Paper	DE	3			3
BTF 131	Chemical Biology	DE	3			
BTF 132	Basics in Biotechnology	DE	3			
BTF 133	Introduction to Bioinformatics	DE	3			
AND001	AANANDAM -I	VA	1	1	1	2
BCS 101	English	VA	1	-	-	1
BSS 104	Understanding Self for Effectiveness – I	VA	1	-	-	1
FLT 101	Foreign Language - I French	VA	2	-	-	2
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
TOTAL						29

Semester II						
Code	Course	Category	L	T	P/FW	Credit
BTF 201	Applied Mathematics - II	CC	3	1	-	4
BTF 202	Applied Physics - II	CC	2	-	-	2
BTF 203	Applied Chemistry - II	CC	2	-	-	2
BTF 204	Object Oriented Programming in C++	CC	2	-	-	2
BTF 205	Internet Technologies	CC	2	-	-	2
BTF 222	Applied Physics - II Lab	CC	-	-	2	1
BTF 223	Applied Chemistry – II Lab	CC	-	-	2	1
BTF 224	Object Oriented Programming in C++ Lab	CC	-	-	2	1
BTF 225	Internet Technologies Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTF 230	Term Paper	DE	3			3
BTF 231	Biological Information and Databases	DE	3			
BTF 232	Computational Biology	DE	3			
BTF 233	Database management System	DE	3			
OE	Open Elective-I	OE				3
AND002	AANANDAM -II	VA	1	1	1	2
BCS 201	English	VA	1	-	-	1
BSS 204	Behavioural Science – II (Problem Solving and Creative Thinking	VA	1			1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language - II French German Spanish Chinese	VA	2	-	-	2
Total						30

Semester III

Code	Course	Category	L	T	P/FW	Credit
BTF 301	Cell Biology	CC	3	-	-	3
BTF 302	Biochemistry - I	CC	2	-	-	2
BTF 303	Microbiology	CC	3	-	-	3
BTF 304	Computer-I	CC	2	-	-	2
BTF 321	Cell Biology-Lab	CC	-	-	2	1
BTF 322	Biochemistry - I-Lab	CC	-	-	2	1
BTF 323	Microbiology -Lab	CC	-	-	2	1
BTF 324	Computer-I-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTF 330	Term Paper	DE				3
BTF 331	Metabolomics	DE				
BTF 332	Basics of PERL programming I	DE				
BTF 333	Chemiinformatics	DE				
OE	Open Elective-II	OE				3
EVS001	Environmental Sciences	CC	4	-	-	4
AND003	AANANDAM -II	VA	-	-	-	2
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 304	Understanding Self for Effectiveness – III	VA	1	-	-	1
FLT 301	Foreign Language - III French	VA	2	-	-	2
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
Total						30

Semester IV						
Code	Course	Category	L	T	P/FW	Credit
BTF 401	Biochemistry - II	CC	3	-	-	3
BTF 402	Molecular Biology	CC	3	-	-	3
BTF 403	Computers - II	CC	2	-	-	2
BTF 404	Genetics	CC	3	-	-	3
BTF 405	Statistics for Biology	CC	3	-	-	3
BTF 421	Biochemistry – II -Lab	CC	-	-	2	1
BTF 422	Molecular Biology-Lab	CC	-	-	2	1
BTF 423	Computers - II-Lab	CC	-	-	2	1
BTF 424	Genetics-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTF 430	Term paper	DE	3			3
BTF 431	Proteomics	DE	3			
BTF 432	Basics of PERL programming II & Python	DE	3			
BTF 433	Molecular Structure Visualization	DE	3			
OE	Open Elective-III	OE				3
AND004	AANANDAM -II	VA	-	-	-	2
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 404	Behavioral Science-IV (Relationship Management)	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language - IV French German Spanish Chinese	VA	2	-	-	2
Total						30

Semester V						
Code	Course	Category	L	T	P/FW	Credit
BTF 501	Structural Biology	CC	3	-	-	3
BTF 502	Advanced Computational Biology – I	CC	3	-	-	3
BTF 503	Immunology	CC	2	-	-	2
BTF 504	Molecular Modeling & Drug Designing	CC	2	-	-	2
BTF 505	Computers - III	CC	2	-	-	2
BTF 521	Structural Biology -Lab	CC	-	-	2	1
BTF 522	Advanced Computational Biology – I- Lab	CC	-	-	2	1
BTF 523	Immunology-Lab	CC	-	-	2	1
BTF 524	Molecular Modeling & Drug Designing -Lab	CC	-	-	2	1
BTF 525	Computers - III-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTF 530	Term Paper	DE	3			3
BTF 531	Functional and Comparative genomics	DE	3			
BTF 532	Transcriptomics and Data Analysis	DE	3			
BTF 533	Immunoinformatics and Biochemical Techniques	DE	3			
BTF-534	Scientific Writing	DE	3			
OE	Open Elective-IV	OE				3
AND005	AANANDAM -II	VA	-	-	-	2
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 504	Understanding Self for Effectiveness – V	VA	1	-	-	1
FLT 501 FLG 501 FLS 501 FLC 501	Foreign Language - V French German Spanish Chinese	VA	2	-	-	2
Total						29

Semester VI						
Code	Course	Category	L	T	P/FW	Credit
BTF 601	Genomics	CC	3	-	-	3
BTF 602	Computational Proteomics	CC	3	-	-	3
BTF 603	Advanced Computational Biology - II	CC	3	-	-	3
BTF 606	Clinical Research & Pharmacovigilance	CC	3	-	-	3
BTF 605	Computers - IV	CC	2	-	-	2
BTF 621	Genomics -Lab	CC	-	-	2	1
BTF 622	Computational Proteomics-Lab	CC	-	-	2	1
BTF 623	Advanced Computational Biology - II -Lab	CC	-	-	2	1
BTF 625	Computers - IV-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTF 630	Term Paper & Industry Visit	DE	3			3
BTF 631	System Biology	DE	3			
BTF 632	Biocomputing Methods of Bioinformatics	DE	3			
BTF 633	IPR and Drug Regulatory Affairs	DE	3			
OE	Open Elective-V	OE				3
AND006	AANANDAM -II	VA	1	1	1	2
BCS 601	Communication Skills – IV	VA	1	-	-	1
BSS 604	Understanding Self for Effectiveness –V I	VA	1	-	-	1
FLT 601	Foreign Language - VI French German	VA	2	-	-	2
FLG 601						
FLS 601	Spanish					
FLC 601	Chinese					
Total						30

Note: After completion of the End Term Examination the students must compulsorily undergo Industrial Training of 6 weeks. The evaluation of this training would be carried out in VII sem.

For domain elective: BTF630- Term Paper & Industry Visit: In addition to term paper Students must compulsorily undergo Industrial Visit (Cluster of 5-6 Industries) for One week and they will be graded on their learning outcome of the visit for one third component of this Term Paper & Industry Visit.

Evaluation will be as follows; Term Paper: 2 Credit (70 Marks) Industry Visit: 1 Credit (30 Marks)

Semester VII						
Code	Course	Category	L	T	P/FW	Credit
BTF 701	Bioinformatics Algorithms ,Python and Matlab	CC	4	-	-	4
BTF 702	Data Mining	CC	3	1	-	4
BTF 703	Entrepreneurship Development	CC	3	-	-	3
BTF 704	R Programming	CC	3	1	-	4
BTF750	Industrial Training (Evaluation)	CC	-	-	-	3
BTF 722	Data Mining-Lab	CC	-	-	2	1
BTF 723	Bioinformatics Algorithm, Python & Matlab-Lab	CC	-	-	2	1
BTF 724	R Programming Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTF 730	Term Paper	DE	3			3
BTF 731	BioJava	DE	3			
BTF 732	Optimization Algorithm	DE	3			
BTF 733	BioPerl	DE	3			
AND007	AANANDAM -II	VA	-	-	-	2
BCS 701	Communication Skills – V	VA				1
BSS 704	Understanding Self for Effectiveness – VII	VA				1
FLT 701 FLG 701 FLS 701 FLC 701	Foreign Language - VII French German Spanish Chinese	VA				2
Total						30

Semester VIII						
Code	Course	Category	L	T	P/FW	Credit
BTF 860	Project / Dissertation	CC	-	-	-	20
Total						

COURSE OUTCOMES

AMITY INSTITUTE OF BIOTECHNOLOGY B. Tech. Bioinformatics

Upon successful completion of the course, the students will be able to:

BTF 101- Applied Mathematics

1. Apply Leibnitz's theorem, Taylor's theorem and mean value theorems.
2. Find Asymptotes & curvature, tangents & normals, maxima & minima and approximate calculation of a function.
3. Differentiate the implicit function, partial derivatives of multi-variable functions and differentiation under integration sign.

BTF 102- Applied Physics-I

1. Develop an understanding of the various concepts of vector analysis and of electrostatics.
2. define and understand the various terms and principles involved in SHM
3. solve simple problems on the applications of wave nature of light.

BTF 103- Applied Chemistry-I

1. **Investigate:** the types of bonds present between molecules, their interaction with each other, their solubility, polarity and structure and orientation in space,
2. **Understand:** the working of engines, its efficiency and basic concepts of thermodynamic processes,
3. **Create:** the structure of the organic compounds by predicting their UV-, IR- & NMR Spectra

BTF 104- Introduction to Computers

1. Investigate working of various components and applications of computer.
2. Apply the principles of procedure-oriented programming for various fields.
3. Create computer programs for various applications using C language.

BTF 105- LIFE SCIENCES

1. Develop foundational knowledge of life sciences.

2. Critically evaluate the current scientific findings and correlate it to the theoretical knowledge base.
3. Identify scientific problems and formulate solutions by taking into account relevant facts.

BTF 122- Applied Physics-I LAB

1. Learning about experiments of determining wavelength, disperse power, specific rotation
2. Determining speed, width of narrow slit, temperature coefficient
3. Determining resistance, value of acceleration, moment of inertia and density.

BTF 123- Applied Chemistry-I LAB

1. Demonstration of titration process.
2. Learning about Beer's Law
3. Spectroscopic analysis

BTF 124- Introduction to Computers- LAB

1. Learning about C programming
2. Fundamentals of C programs, syntax, operators, looping etc
3. File handling

BTF 125- Engineering Graphics-Lab

1. Developing skills about projections of point and lines
2. Plane figures and solid projections
3. Learning about surface development

AND 001- AANANDAM-I

1. Awareness and empathy regarding community issues and interaction with the community and impact on society
2. Interaction with mentor and development of Student teacher relationship and among students, enlarge social network
3. Cooperative and Communication skills and leadership qualities and Critical thinking, Confidence and Efficiency

BTF 130- Term Paper

1. Developing skills regarding subjects, material source and notes.
2. Writing skills of first paper draft.
3. Knowledge regarding volumes, articles, e-book, etc.

BTF 131- Chemical Biology

1. Investigate about various biological processes involve in synthesis of molecules like DNA, RNA, protein, fats and vitamins.
2. Create projects for development of reaction schema for synthetic and semisynthetic approach.
3. Apply these reaction methods and processes for generation of new testing protocols and novel molecule synthesis.

BTF 132- Basics in Biotechnology

1. Investigate the role of different branches of Biotechnology.
2. Acquire summarize and inferring the field of their interest among the different papers of Biotechnology.
3. Demons execute the concepts in the field of agriculture, veterinary sciences, pharmaceutical industry and food industry etc.

BTF 133- Introduction to Bioinformatics

1. Identify structure-function relationships, information theory, gene expression, and database queries
2. Analyse and critically evaluate the results form biological databases and ability to design, perform and record experiments independently.
3. Select and implement a problem with the scientific reasoning and data analysis.

BCS 101- English

1. Understanding essential vocabulary and grammar
2. Learning about communication
3. Speaking and writing in English.

BSS 104- Understanding Self for Effectiveness-I (Understanding Self for Effectiveness)

1. Learning strategies for development of a healthy self esteem
2. Importance of attitudes and its effective on personality
3. Building Emotional Competence

FLT 101- French-I

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

FLG 101- German-I

1. **Identify** and **express** in German vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in German

FLS 101- Spanish-I

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish

FLC 101- Chinese-I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

BTF 201- Applied Mathematics-II

1. Solve system of linear equations; be familiar with the definition and properties of matrix; find the eigenvalues and eigenvectors of a square matrix.
2. Investigate the properties of vectors and study their differentiation and integration properties.
3. Calculate the measure of central tendency and doing curve fitting.

BTF 202- Applied Physics-II

1. demonstrate basic knowledge of Quantum theory and apply it to other phenomenon as observed in sub-atomic Physics
2. solve simple problems in Quantum Theory.
3. identify and analyse the various spectra as observed during electronic transitions

BTF 203-Applied Chemistry-II

1. Understand water hardness hazards and removal it through water softening techniques.
2. Improve the CFV and octane number of fuel.
3. Develop the biodegradable polymer.

BTF 204- Object Oriented Programming in C++

1. Apply the principles of object-oriented programming for various fields.
2. Create computer programs for various applications using C++ language.

BTF 205- Internet Technologies

1. Investigate basic principles of internet technology.
2. Apply the knowledge of internet for efficiently searching data for building datasets in different application.
3. Create, design and maintain websites or own computer networks for any specific field.

BTF 222- Applied Physics-II-LAB

1. Determining wavelength of prominent lines of mercury spectrum
2. Learning about how to determine wavelength of the He-Ne laser light, frequency of electricity.
3. Energy band-gap of germanium crystal etc.

BTF 223-Applied Chemistry-II-LAB

1. Learning about how to determine viscosity index, flash point and fire point of lubricating oil
2. Chemical Analysis of Water
3. Urea Formaldehyde resin synthesis etc.

BTF 224- Object Oriented Programming in C++ LAB

1. Demonstrate how to create objects
2. Use of constructors and destructors.
3. File handling

BTF 225- Internet Technologies LAB

1. Introduction and historical information on Microorganisms and their use in different industries
2. Acquire industrial skills of microbial culture, growth, and practices
3. Demonstrate the advanced application of Microbes in emerging industrial sectors

AND 002- AANANDAM-II

1. Awareness and empathy regarding community issues and interaction with the community and impact on society
2. Interaction with mentor and development of Student teacher relationship and among students, enlarge social network
3. Cooperative and Communication skills and leadership qualities and Critical thinking, Confidence and Efficiency

BTF 230- Term Paper

1. Developing skills regarding subjects, material source and notes.

2. Writing skills of first paper draft.
3. Knowledge regarding volumes, articles, e-book, etc.

BTF 231- Biological Information and Databases

1. Investigate, Biological information database, structure and pathway databases. Sequence databases to both nucleic acid and protein sequences.
2. Create biological information database, structure and pathway databases. Sequence databases to both nucleic acid and protein sequences.
3. Apply and analyse biological data using a variety of Bioinformatics tools and can compare various methods applied to solve biological questions.

BTF 232- Computational Biology

1. Investigate about various publicly available biological data at various database and will understand the data attributes with information stored in it.
2. Create new projects by applying various tools to investigate existing data interpretation methods and can address issues by applying computational methods.
3. Apply these data sources and computational methods for investigation of novel biological problems.

BTF 233- Database Management Systems

1. Investigate about various publicly available databases and will able to design the data attributes for storing information.
2. Create new projects by applying various database concept to investigate existing data design and can address issues by applying novel methods
3. Apply these data sources and compile to design novel biological data resources.

BCS 201- English

1. Learning about communication skills
2. Speaking and writing in English
3. Learning about short stories and poems.

BSS 204- Understanding Self for Effectiveness-II (Problem Solving and Creative Thinking)

1. Understand the process of problem solving and creative thinking.

2. Facilitation and enhancement of skills required for decision-making

FLT 201- French-II

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

FLG 201- German-II

1. **Identify** and **express** in German vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes
3. **Demonstrate** comprehension of nuance between script and sound in German.

FLS 201- Spanish-II

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish

FLC 201- Chinese-II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

BTF 301- Cell Biology

1. Introduction, history, types and cell cycle
2. Learning about cell structures, signaling and other mechanism.
3. Knowledge regarding cancer biology

BTF 302- BIOCHEMISTRY-I

1. Chemical properties, bonding and interaction of molecules.
2. Introduction to biomolecules
3. Metabolism

BTF 303- MICROBIOLOGY

1. Introduction to microbiology
2. Structure, function and classification of microbes
3. Pathogenicity

BTF 304- COMPUTER-I

1. Introduction to OOP concept.
2. Develop sense of writing general programs using different operators , looping concept , array, trees etc
3. Exception handling

BTF 321- CELL BIOLOGY LAB

1. Microscopes and it's types
2. Experimentations about plant, animal, onion cells
3. Study about mechenisms like mitosis, meiosis , osmosis

BTF 322- BIOCHEMISTRY-I LAB

1. Colorimetric analysis
2. Quantitative estimations
3. Estimation of sugars, cholesterol, fatty acids

BTF 323- MICROBIOLOGY LAB

1. Media preparation
2. Isolation of microbes and staining concept
3. Microscopic examination

BTF 324- COMPUTER LAB-I

1. Implementation of classes, constructors and destructors
2. Concept of inheritance
3. Sorting and searching

AND 003-AANANDAM-III

1. Awareness and empathy regarding community issues and interaction with the community and impact on society
2. Interaction with mentor and development of Student teacher relationship and among students, enlarge social network

3. Cooperative and Communication skills and leadership qualities and Critical thinking, Confidence and Efficiency

BTF 330- TERM PAPER

1. Developing skills regarding subjects, material source and notes.
2. Writing skills of first paper draft.
3. Knowledge regarding volumes, articles, e-book, etc.

BTF 331- METABOLOMICS

1. Introduction to metabolomics
2. Online databases and pipelines using for metabolomics
3. Insilico methods to interpret metabolomic data.

BTF 332- BASICS OF PERL PROGRAMMING-I

1. Understand basics of PERL.
2. A To practice general Example of Perl Coding

BTF 333- CHEMI-INFORMATICS

1. Introduction, history, evolution and prospects
2. Representation and manipulations of 2D and 3D structures
3. Concept of ADMET

EVS 001- ENVIRONMENTAL SCIENCES

1. Introduction to environmental science
2. Knowledge about Natural resources
3. Concepts of ecosystem, biodiversity and conservation

BCS 301- COMMUNICATION SKILLS-I

1. Develop general writing skills.
2. Develop letter writing skills.
3. Learning about how to write reports.

BSS 304- Understanding Self for Effectiveness-III (Interpersonal Communication)

1. Enhancing personal effectiveness and performance through effective interpersonal communication
2. Enhancing their conflict management and negotiation skills

FLT 301- FRENCH-III

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

FLG 301- GERMAN-III

1. Students will be able to ask and tell time
2. **Interpret** different types of texts as well as cultural ideas and themes, daily routine using Separable verbs.
3. **Demonstrate:** Student will be able to write and speak sentences using modal verbs.

FLS 301- SPANISH-III

1. Introduction of stem changing irregular verbs
2. Introduction of pre-positions (Cerca de/ lejos de/ encima de etc.)
3. Present continuous tense (**Estar+ gerundio**)

FLC 301- CHINESE-III

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

BTF 401- BIOCHEMISTRY-II

1. Proteins and nucleotides
2. Enzyme kinetics
3. Amino acid and nucleotide metabolism

BTF 402- MOLECULAR BIOLOGY- I

1. Structure of DNA and RNA
2. Replication , transcription and translation
3. Splicing

BTF 403- COMPUTERS-II

1. Introduction to database management system
2. Concepts of SQL, DDL, DML and DCL statements
3. Database programming

BTF 404- GENETICS

1. Introduction to genes and genetic variations
2. Knowledge of Chromatin structure
3. Techniques and applications

BTF 405- STATISTICS

1. Mean , median and mode
2. Statistical distribution
3. Sampling , time series and forecasting

BTF 421- BIOCHEMISTRY-II LAB

1. Study about different Protein tests
2. Spectrometric methods for quantitative determination of molecular structures
3. Study of enzyme activity

BTF 422- MOLECULAR BIOLOGY LAB

1. Introduction to Gel electrophoresis
2. Isolation of molecular structures
3. Concept of bacterial Transformation

BTF 423- COMPUTER LAB-II

1. Table creation, updation , deletion, types of keys

2. SOL
3. Database programming

BTF 422- GENETICS LAB

1. Learning about Hybridization
2. Study about Linkage
3. Concepts of Molecular markers

AND 004- AANANDAM-IV

1. Awareness and empathy regarding community issues and interaction with the community and impact on society
2. Interaction with mentor and development of Student teacher relationship and among students, enlarge social network
3. Cooperative and Communication skills and leadership qualities and Critical thinking, Confidence and Efficiency

BTF 430- TERM PAPER

1. Developing skills regarding subjects, material source and notes.
2. Writing skills of first paper draft.
3. Knowledge regarding volumes, articles, e-book, etc.

BTF 431- PROTEOMICS

1. Concept of protein sequencing
2. Concept of protein separation techniques
3. Proteome databases and its applications

BTF 432- Basics of Perl programming-II and Python

1. Understand the role of Perl and Python programming language in data extraction and analysis.
2. Perform various applications on test data developed or extracted in lab.
3. Understand the impact of data extraction in research and able to have idea to develop new tools for Bioinformatics.

BTF 433- MOLECULAR STRUCTURE VISUALIZATION

1. Protein structures and its classification
2. Introduction to Ab initio method
3. Introduction to Useful tools and techniques

BCS 401- COMMUNICATION SKILLS-II

1. Development of social communication skills
2. Learning about context based speaking.
3. Professional skills development.

BSS 404- Understanding Self for Effectiveness- IV (Relationship Management)

1. To understand the basis of interpersonal relationship
2. To understand various communication style
3. To learn the strategies for effective interpersonal relationship

FLT 401- FRENCH-IV

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

FLG 401- GERMAN-IV

1. Students will be able to ask and tell time
2. **Interpret** different types of texts as well as cultural ideas and themes, daily routine using Separable verbs.
3. **Demonstrate** Student will be able to write and speak sentences using modal verbs.

FLS 401- SPANISH-IV

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish

FLC 401- CHINESE-IV

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.

BTF 501- STRUCTURAL BIOLOGY

1. Secondary structures of protein
2. Classification, structure and function of structures
3. Protein solubility and stabilization

BTF 502- ADVANCED COMPUTATIONAL BIOLOGY-I

1. Introduction to Phylogenetic trees
2. Approaches for tree reconstruction
3. Systems Biology concepts

BTF 503- IMMUNOLOGY

1. Introduction to Immunology
2. Concepts of antigen and antibody
3. Compliment system , vaccines and Tumor immunology

BTF 504- MOLEULAR MODELLING AND DRUG DESIGNING

1. Introduction to drug designing, drug metabolism toxicity and pharmacokinetics
2. Drug Target classification, identification and validation strategies
3. QSAR: Statistical techniques

BTF 505- COMPUTERS-III

1. Introduction to Web page Designing
2. Introduction to Operating system
3. Introduction to Shell script, shell variables, System variables

BTF 521- STRUCTURAL BIOLOGY LAB

1. Chemical modification of proteins
2. Introduction to Peptide mapping
3. Crystallization

BTF 522- ADVANCED COMPUTATIONAL BIOLOGY-I LAB

1. Introduction to Biological Databases
2. Tree Building using different tools,
3. Protein interaction databases

BTF 523- IMMUNOLOGY LAB

1. Blood film preparation
2. Immunization, collection of serum.
3. Demonstrate the advanced application of ELISA.

BTF 524- MOELCULAR MODELLING AND DRUG DESIGNING LAB

1. Introduction to Structure based drug design
2. Introduction to QSAR
3. Energy minimization and simulation techniques.

BTF 525- COMPUTER LAB-III

1. Introduction to HTML, PHP and SQLserver
2. Designing the Dynamic web pages
3. Working with Linux commands

AND005- AANANDAM-V

1. Awareness and empathy regarding community issues and interaction with the community and impact on society
2. Interaction with mentor and development of Student teacher relationship and among students, enlarge social network
3. Cooperative and Communication skills and leadership qualities and Critical thinking, Confidence and Efficiency

BTF 530- TERM PAPER

1. Developing skills regarding subjects, material source and notes.

2. Writing skills of first paper draft.
3. Knowledge regarding volumes, articles, e-book, etc.

BTF 531- FUNCTIONAL AND COMPARATIVE GENOMICS

1. Introduction to Human genome project
2. Next-Generation sequencing
3. Comparative and functional genomics

BTF 532- TRANSCRIPTOMICS AND DATA ANALYSIS

1. Introduction to “Omics”
2. Introduction of Bioinformatics’ tools in genome sequencing
3. Applications of next generation sequencing

BTF 533- IMMUNOINFORMATICS AND BIOCHEMICAL TECHNIQUES

1. Introduction to Immune System
2. Computational vaccinology
3. Biochemical Methods of Analysis, Electrophoresis

BTF 534- SCIENTIFIC WRITING

1. Introduction to Scientific Field and Biological research
2. Computing skills for scientific research
3. Types of articles and paper format

BCS 501- COMMUNICATION SKILLS-III

1. Learning about linguistic skills in the field of science and technologies.
2. Learning about reading comprehension
3. Developing skills regarding essay writing , leaflets, dialogue reports etc.

BSS 504- Understanding self for effectiveness-V (Group dynamics and team building)

1. To inculcate in the students an elementary level of understanding of group/team functions
2. To develop team spirit and to know the importance of working in teams

FLT 501- FRENCH-V

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

FLG 501- GERMAN-V

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses

FLS 501- SPANISH-V

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish

FLC 501- CHINESE-V

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

BTF 601- GENOMICS

1. Introduction to Genomics
2. Introduction to Genome sequencing
3. Introduction to DNA microarray

BTF 602-COMPUTATIONAL PROTEOMICS

1. Introduction to Proteome analysis
2. Introduction to Protein-protein interactions
3. Structure determination techniques

BTF 603- ADVANCED COMPUTATIONAL BIOLOGY-II

1. Computational methods for identification of polypeptides from mass spectrometry
2. Proteomics informatics strategies for biomarker discovery
3. Biological networks and NGS Platforms

BTF 606- CLINICAL RESEARCH AND PHARMACOVIGILNACE

1. Introduction to Pharmacology & Drug discovery process
2. Basics of clinical trials
3. Pharmacovigilance

BTF 606- CLINICAL RESEARCH AND PHARMACOVIGILNACE

1. Introduction to Pharmacology & Drug discovery process
2. Basics of clinical trials
3. Pharmacovigilance

BTF 605- COMPUTERS-IV

1. Introduction to Java
2. Java Servlets
3. Exception handling

BTF 621- Introduction to Comparative genome analysis

1. Databases and web based resources
2. Tools for analysis of human genome
3. GENOMICS LAB

BTF 622- COMPUTATIONAL PROTEOMICS LAB

1. Protein identification
2. Databases
3. Web basedGraphicsVisualisation and analysis tools

BTF 623- ADVANCED COMPUTATIONAL BIOLOGY LAB-II

1. Biological Databases
2. Sequence and Phylogenetic Analysis

3. Metabolic Pathway databases

BTF 625- COMPUTER LAB-IV

1. Developing Java programs
2. Designing User interface
3. Designing the XML program using DTD

AND006- AANANDAM-VI

1. Awareness and empathy regarding community issues and interaction with the community and impact on society
2. Interaction with mentor and development of Student teacher relationship and among students, enlarge social network
3. Cooperative and Communication skills and leadership qualities and Critical thinking, Confidence and Efficiency

BTF 630- TERM PAPER AND INDUSTRY VISIT

1. Developing skills regarding subjects, material source and notes.
2. Writing skills of first paper draft.
3. Knowledge regarding volumes, articles, e-book, etc.

BTF 631- SYSTEM BIOLOGY

1. Introduction to Systems Biology
2. Metabolomics
3. Target identification

BTF 632- BIOCOMPUTING METHODS OF BIOINFORMATICS

1. Molecular modeling concepts
2. Energy Minimization
3. Molecular dynamic simulation method

BTF 633- IPR AND DRUG REGULATORY ISSUES

1. Introduction to intellectual Property Rights
2. Patent filing procedure
3. Drug Regulatory affairs and its importance.

BCS-601- COMMUNICATION SKILLS-IV

1. Developing communication skills in global business environment.
2. Social communication skills
3. Business communication skills

BTF 604- Understanding self for effectiveness-VI (STRESS AND COPING STRATEGIES)

1. Stress and its types
2. The physiology of stress Stimulus
3. Causes and symptoms, Strategies for stress management

FLT 601- FRENCH-VI

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

FLF 601- GERMAN-VI

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages

FLS 601- SPANISH-VI

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish

FLC 601- CHINESE-VI

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.

BTF 701- BIOINFORMATICS ALGORITHMS, PYTHON AND ,MATLAB

1. Understand the role of Information Technology and Computer Science to develop new algorithms that can be more efficient and accurate.
2. Understand the role of Python programming language in data extraction and analysis.
3. Understand the role of MATLAB programming language in data extraction and analysis.

BTF 702- DATA MINING

1. Understand the basic of data mining and analysis.
2. Perform various applications on test data developed or extracted in lab.
3. Demonst Understand the impact of data extraction in research and able to have idea to develop new tools for Bioinformatics.

BTF 703- ENTERPRENEURSHIP DEVELOPMENT

1. Introduction to Entrepreneurship
2. Concepts of Formal and informal organization
3. Project Finance

BTF 704- R PROGRAMMING

1. Understand the role of R-programming language in data extraction and analysis.
2. Perform various applications on test data developed or extracted in lab.
3. Understand the impact of data extraction in research and able to have idea to develop new tools for Bioinformatics.

BTF 750- INDUSTRIAL TRAINING EVALUATION

1. research institutes/R&D Labs of industries
2. biotechnological toolsand procedures and their utility in commercial applications

3. Various industrial/Research aspects of commercialization of biotechnological systems

BTF 722- DATA MINING LAB

1. Understand the basic of data mining and analysis.
2. Perform various applications on test data developed or extracted in lab.
3. Understand the impact of data extraction in research and able to have idea to develop new tools for Bioinformatics.

BTF 723- BIOINFORMATICS ALGORITHMS, PYTHON AND MATLAB

1. Understand the role of Python programming language in data extraction and analysis.
2. Perform various applications on test data developed or extracted in lab.
3. Understand the impact of data extraction in research and able to have idea to develop new tools for Bioinformatics.

BTF 724- R PROGRAMMING LAB

1. Understand the role of R-programming language in data extraction and analysis.
2. Perform various applications on test data developed or extracted in lab.
3. Understand the impact of data extraction in research and able to have idea to develop new tools for Bioinformatics.

AND007- AANANDAM-VII

1. Awareness and empathy regarding community issues and interaction with the community and impact on society
2. Interaction with mentor and development of Student teacher relationship and among students, enlarge social network
3. Cooperative and Communication skills and leadership qualities and Critical thinking, Confidence and Efficiency

BTF 730- TERM PAPER

1. Developing skills regarding subjects, material source and notes.
2. Writing skills of first paper draft.

3. Knowledge regarding volumes, articles, e-book, etc.

BTF 731- BIOJAVA

1. IntroductiontoBioJava
2. BasicSequenceManipulation
3. Weight Matrices and Dynamic Programming

BTF 732- OPTIMIZATION ALGORITHM

1. Introduction toMarkov chain Monte Carlo methods
2. Linear programming
3. Contrastive divergence optimization

BTF 733- BIOPERL

1. Understand the role of Perl programming language in data extraction and analysis.
2. Perform various applications on test data developed or extracted in lab.
3. Understand the impact of data extraction in research and able to have idea to develop new tools for Bioinformatics.

BCS 701- COMMUNICATION SKILLS-V

1. Academic language proficiency
2. Development of public speaking skills, business conversations etc
3. Resume and covering letter writing skills development

BSS 704- Understanding self for effectiveness-VII (Individual, Society and Nation)

1. To develop an understanding the concept of stress its causes, symptoms and consequences.
2. To develop an understanding the consequences of the stress on one's wellness, health, and work performance.

FLT 701- FRENCH-VII

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

FLG 701- GERMAN-VII

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses

FLS 701-SPANISH-VII

1. Introduction and historical information on Microorganisms and their use in different industries
2. Acquire industrial skills of microbial culture, growth, and practices
3. Demonstrate the advanced application of Microbes in emerging industrial sectors

FLC 701- CHINESE-VII

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.

BTF 860- MAJOR PROJECT

1. Research experience to a professional problem-solving activity
2. genuine exploration of the unknown
3. completion of reports



AMITY UNIVERSITY
R A J A S T H A N

**AMITY INSTITUTE OF BIOTECHNOLOGY
(AIB)**

Bachelor of Technology

(Food Technology)

Programme Code: BTD

12126

Duration – 4 Year Full Time

Programme Structure

Credit Summary Sheet

B. Tech Food Technology							
Semester	CC	DE	VA	OE	NTCC	Ananda m	Total
1	16	3	4	-	-	2	25
2	16	3	4	3	-	2	28
3	17	3	4	3	-	2	29
4	18	3	4	3	-	2	30
5	18	3	4	3	-	2	30
6	18	3	4	3	-	2	30
7	24	3	4	-	-	2	33
8	-	-	-	-	20	-	20
Total	127	21	28	15	20	14	225

Program Specific Outcomes (PSOs)

1. Graduates will be trained in soft skills and business communication to maintain good professional and personal relationship.
2. Graduates will have laboratory technical skills to measure, control and modify chemical and physical properties of foods and processed food products and ensure the quality and safety of food products.
3. Graduates will be able to understand biochemical processes during post-harvest storage of food materials. They will also be able to develop new food products e.g. nutraceuticals.
4. Graduates will understand engineering principles of unit operations and unit processes. They will be able to transform raw materials into food products/ processed food products for value addition.
5. Graduates will be able to understand processing, packaging and product technology for fruits, vegetables, dairy, meat, sea-foods (fish and prawns) and cereals as also of fermented food products.

Program Structure

B. Tech. Food Technology: I- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTD101	Applied Mathematics - I	CC	3	1	-	4
BTD102	Applied Physics - I	CC	2	-	-	2
BTD103	Applied Chemistry - I	CC	2	-	-	2
BTD104	Introduction to Computers	CC	2	-	-	2
BTD105	Life Sciences	CC	2	-	-	2
BTD122	Applied Physics - I -Lab	CC	-	-	2	1
BTD123	Applied Chemistry - I-Lab	CC	-	-	2	1
BTD124	Introduction to Computers-Lab	CC	-	-	2	1
BTD125	Engineering Graphics-Lab	CC	-	-	2	1
DE Electives: Student must select 1 course from the list of following DE electives						
BTD130	Term Paper	DE	3	-	-	3
BTD131	Biomolecules: Structure and Function	DE				
BTD132	Basics in Plant Biotechnology	DE				
BTD133	Basics in Food Technology and Post-Harvest Management	DE				
BCS 101	English	VA	1	-	-	1
AND001	ANANDAM-I	NTCC	-	-	-	2
BSS 104	Behavioral Science I (Self Development and Interpersonal Skills)	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
	TOTAL					25

B.Tech Food Technology: II- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTD201	Applied Mathematics - II	CC	3	1	-	4
BTD202	Applied Physics - II	CC	2	-	-	2
BTD203	Applied Chemistry - II	CC	2	-	-	2
BTD204	Object Oriented Programming in C++	CC	2	-	-	2
BTD 205	Thermodynamics	CC	3	-	-	3
BTD222	Applied Physics - II -lab	CC	-	-	2	1
BTD223	Applied Chemistry - II-lab	CC	-	-	2	1
BTD224	Object Oriented Programming in C++ -lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTD230	Term Paper	DE	3	-	-	3
BTD231	Specialty Foods	DE				
BTD232	Plant Resource Utilization	DE				
BTD233	Confectionary and Sugar Technology	DE				
OE	Open Elective-I	OE	3	-	-	3
BCS 201	English	VA	1	-	-	1
AND002	ANANDAM-II	NTCC	-	-	-	2
BSS 204	Behavioral Science - II (Problem Solving and Creative Thinking)	VA	1	-	-	1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language - II French German Spanish Chinese	VA	2	-	-	2
	TOTAL					28

B.Tech Food Technology: III- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTD 301	Principles of Food Processing	CC	3	1	-	4
BTD 302	General Biochemistry	CC	3	-	-	3
BTD 303	General & Applied Microbiology	CC	3	1	-	4
BTD 322	General Biochemistry –Lab	CC	-	-	2	1
BTD 323	General & Applied Microbiology -Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTD330	Term Paper	DE	3	-	-	3
BTD331	Food Rheology & Texture	DE				
BTD332	Industrial Crops	DE				
BTD333	Nanotechnology and its application in Food	DE				
OE	Open Elective-III	OE	3	-	-	3
EVS001	Environmental Sciences	CC	4	-	-	4
BCS 301	Communication Skills - I	VA	1	-	-	1
AND003	ANANDAM-II	NTCC	-	-	-	2
BSS 304	Behavioral Science III (Interpersonal Communication)	VA	1	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language - III French German Spanish Chinese	VA	2	-	-	2
	TOTAL					29

B.Tech Food Technology: IV- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTD 401	Food Chemistry	CC	3	-	-	3
BTD 402	Food Microbiology	CC	3	-	-	3
BTD 403	Principles of Heat & Mass Transfer	CC	3	-	-	4
BTD 404	Mechanics of Fluids	CC	3	-	-	4
BTD 421	Food Chemistry -Lab	CC	-	-	2	1
BTD 422	Food Microbiology-Lab	CC	-	-	2	1
BTD 423	Principles of Heat & Mass Transfer-Lab	CC	-	-	2	1
BTD 424	Mechanics of Fluids-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTD430	Term Paper	DE	3	-	-	3
BTD431	Computer simulation & modeling in food processing	DE				
BTD432	Enzymes in Food Processing	DE				
BTD433	Marketing Management for food	DE				
OE	Open Elective-IV	OE	3			3
BCS 401	Communication Skills – II	VA	1	-	-	1
AND004	ANANDAM-IV	NTCC	-	-	-	2
BSS 404	Behavioral Science-IV (Relationship Management)	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language - IV French German Spanish Chinese	VA	2	-	-	2
TOTAL						30

B. Tech Food Technology: V- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTD 501	Food Quality- Analysis & Assurance	CC	2	-	-	2
BTD 502	Processing of Fruits & Vegetables	CC	3	-	-	3
BTD 503	Processing of Milk & Milk Products	CC	3	-	-	3
BTD 504	Food Engineering - I	CC	3	-	-	3
BTD 505	Statistics for Biology	CC	3	-	-	3
BTD 521	Food Quality- Analysis & Assurance -Lab	CC	-	-	2	1
BTD 522	Processing of Fruits & Vegetables -Lab	CC	-	-	2	1
BTD 523	Processing of Milk & Milk Products -Lab	CC	-	-	2	1
BTD 524	Food Engineering - I –Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTD530	Term Paper	DE	3	-	-	3
BTD531	Refrigeration & Air Conditioning	DE				
BTD532	Malting & Brewing Technology	DE				
BTD533	Infestation Control and Grain Storage	DE				
OE	Open Elective-V	OE	3			3
BCS 501	Communication Skills – III	VA	1	-	-	1
AND005	ANANDAM-V	NTCC	-	-	-	2
BSS 505	Behavioral Science – V (Group Dynamics & Team Building)	VA	1	-	-	1
FLT 501	Foreign Language - V French	VA	2	-	-	2
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
TOTAL						30

B. Tech Food Technology: VI- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTD 601	Food Engineering - II	CC	3	-	-	4
BTD 602	Processing of Cereals, Pulses & Oilseeds	CC	3	-	-	3
BTD 603	Processing of Meat, Fish & Poultry Products	CC	3	-	-	3
BTD 604	Food Additives	CC	2	-	-	2
BTD 605	Food Plant Sanitation	CC	2	-	-	2
BTD 621	Food Engineering – II -Lab	CC	-	-	2	1
BTD 622	Processing of Cereals, Pulses & Oilseeds-Lab	CC	-	-	2	1
BTD 623	Processing of Meat, Fish & Poultry Products-Lab	CC	-	-	2	1
BTD 624	Food Additives-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTD630	Term Paper & Industry Visit	DE	3	-	-	3
BTD631	Advance Food Technology	DE				
BTD632	Engineering Properties of Food Materials	DE				
BTD633	Food Product Development	DE				
OE	Open Elective-VI	OE	3			3
BCS 601	Communication Skills – IV	VA	1	-	-	1
AND006	ANANDAM-VI	NTCC	-	-	-	2
BSS 604	Behavioral Science-VI (Stress and Coping Strategies)	VA	1	-	-	1
FLT 601	Foreign Language - VI French	VA	2	-	-	2
FLG 601	German					
FLS 601	Spanish					
FLC 601	Chinese					
TOTAL						30

Note: After completion of the End Term Examination the students must compulsorily undergo Industrial Training of 1 month. The evaluation of this training would be carried out in VII sem.

For domain elective: BTD630- Term Paper & Industry Visit: In addition to term paper Students must compulsorily undergo Industrial Visit (Cluster of 5-6 Industries) for One week and they will be graded on their learning outcome of the visit for one third component of this Term Paper & Industry Visit.

Evaluation will be as follows;

Term Paper: 2 Credit (70 Marks)

Industry Visit: 1 Credit (30 Marks)

B.Tech Food Technology: VII- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTD 701	Principles of Food Biotechnology	CC	2	1	-	3
BTD 702	Packaging of Food Products	CC	2	1	-	3
BTD 703	Principles of Human Nutrition	CC	2	1	-	3
BTD 704	Technology of Spices, Plantation Crops & Flavors	CC	4	-	-	4
BTD 705	Food Equipment and Plant Design	CC	3	1	-	4
BTD750	Industrial Training Evaluation	CC	-	-	-	3
BTD 721	Principles of Food Biotechnology -Lab	CC	-	-	2	1
BTD 722	Packaging of Food Products-Lab	CC	-	-	2	1
BTD 723	Principles of Human Nutrition-Lab	CC	-	-	2	1
BTD 724	Technology of Spices, Plantation Crops & Flavors-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BTD730	Term Paper	DE	3	-	-	3
BTD731	Food Adulteration	DE				
BTD732	Management of Food Industry Waste	DE				
BTD733	Food Beverages	DE				
BCS 701	Communication Skills – V	VA	1	-	-	1
AND007	ANANDAM-VII	NTCC	-	-	-	2
BSS 704	Behavioral Science-VII (Individual, Society and Nation)	VA	1	-	-	1
FLN701	Foreign Language - VII French	VA	2	-	-	2
FLG 701	German					
FLS 701	Spanish					
FLC 701	Chinese					
	TOTAL					33

B.Tech Food Technology : VIII- SEMESTER						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
BTD860	Major Project/Dissertation	NTCC	-	-	-	20
	TOTAL					20

COURSE OUTCOMES

AMITY INSTITUTE OF BIOTECHNOLOGY

B. Tech. Food Technology

BTD101-Applied Mathematics – I

1. Apply Leibnitz's theorem, Taylor's theorem and mean value theorems
2. Find Asymptotes & curvature, tangents & normals, maxima & minima and approximate calculation of a function.
3. Differentiate the implicit function, partial derivatives of multi-variable functions and differentiation under integration sign.
4. Find the length, area, volumes and solid of revolution using integration
5. Solve the improper integrals and multiple integrals
6. Recognize and solve the ordinary differential equations

BTD102-Applied Physics - I

1. Develop an understanding of the various concepts of vector analysis and of electrostatics.
2. Solve simple problems on vector analysis and Gauss' law
3. Define space and time and understand the variations in other related fundamental quantities such as mass, velocity and force.
4. Solve simple problems related to the above concepts on relativity.

BTD103-Applied Chemistry – I

1. Investigate: the types of bonds present between molecules, their interaction with each other, their solubility, polarity and structure and orientation in space
2. Understand: the working of engines, its efficiency and basic concepts of thermodynamic processes
3. Understanding molecular geometry also helps scientist to understand the shapes of more complex molecules such as proteins and DNA. The shapes of these molecules play incredibly important roles in determining the jobs performed by these molecules in our bodies
4. Create: the structure of the organic compounds by predicting their UV-, IR- & NMR Spectra

BTD104-Introduction to Computers

1. Investigate working of various components and applications of computer.
2. Apply the principles of procedure-oriented programming for various fields.
3. Create computer programs for various applications using C language.

BTD105-Life Sciences

1. Develop foundational knowledge of life sciences.
2. Critically evaluate the current scientific findings and correlate it to the theoretical knowledge base.
3. Identify scientific problems and formulate solutions by taking into account relevant facts.
4. Apply theoretical knowledge in practical application.

BTD131-Biomolecules: Structure and Function

1. Develop foundational knowledge of Biomolecules.
2. Critically evaluate the current scientific findings and correlate it to the theoretical knowledge base.
3. Apply theoretical knowledge in practical application of food industry.

BTD132-Basics in Plant Biotechnology

1. Knowledge about the plant biotechnology
2. Application of biotechnological tools in food industry
3. Students will be able to read and interpret plant breeding related techniques.

BTD133-Basics in Food Technology and Post-Harvest Management

1. Having in depth knowledge of post-harvest physiology and processing of agricultural crops and agricultural waste management
2. able to understand the status, scope and challenges of food industry.
3. Able to know the principles of food processing and preservation to increase the self-life of food products and enhancing the quality and safety characteristics.

BCS 101-English

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

BSS 104-Behavioral Science I (Self Development and Interpersonal Skills)

1. Demonstrate knowledge of strategies for developing a healthy interpersonal communication.
2. Recognize the importance of transactional analysis, script analysis.
3. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management.
4. Enhance personal effectiveness and performance through effective interpersonal communication

FLT 101-French

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLG 101-German

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLS 101-Spanish

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLC 101-Chinese

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

AND001-ANANDAM-IV

1. Awareness and empathy regarding community issues

2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BTD201-Applied Mathematics – II

1. Solve system of linear equations; be familiar with the definition and properties of matrix; find the eigenvalues and eigenvectors of a square matrix.
2. Investigate the properties of vectors and study their differentiation and integration properties.
3. Calculate the measure of central tendency and doing curve fitting.
4. Develop knowledge of basic discrete and continuous distributions (Binomial, Poisson, Normal) and how to work with them.
5. Apply the method to use complex numbers and complex valued functions and hyperbolic functions.

BTD202-Applied Physics - II

1. demonstrate basic knowledge of Quantum theory and apply it to other phenomenon as observed in sub-atomic Physics
2. solve simple problems in Quantum Theory.
3. identify and analyse the various spectra as observed during electronic transitions analyse the way nature has endowed properties to materials

BTD203-Applied Chemistry – II

1. Understand water hardness hazards and removal it through water softening techniques.
2. Able the control of corrosion by scientific protection methods.
3. Improve the CFV and octane number of fuel.
4. Develop the biodegradable polymer.

BTD204-Object Oriented Programming in C++

At the successful completion of this course the student will be able to:

1. Apply the principles of object-oriented programming for various fields.
2. Create computer programs for various applications using C++ language.

BTD 205-Thermodynamics

1. Ability to acquire and apply fundamental knowledge of mathematics,
2. Ability to acquire and apply science and engineering principles to solve complex thermal engineering problems related to food engineering

BTD231-Specialty Foods

After successful completion of the course students will be

1. aware of the speciality food.
2. able to prepare speciality food for different category of people.
3. Able to understand the preparation and health benefits of functional and therapeutic food

BTD232-Plant Resource Utilization

After successful completion of the course students will be

1. aware of the in vitro plant propagation.
2. able to identify and solve problems related to suspension culture and production of secondary metabolites.
3. Able to understand genetic engineering and its applications in various sectors.

BTD233-Confectionary and Sugar Technology

At the successful completion of this course you (the student) should be able to:

1. Gives idea about applied technology of confectionary products
2. Learn the various the manufacturing technology of confectionary products
3. Understand the equipments used for manufacturing of confectionary products

BCS 201-English

1. Participate in conversation and in small- and whole-group discussion
2. Explore and use English as medium of communication in real life situation
3. Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
4. Identify features of a reading textbook and utilize them as needed
5. Prepare and deliver organized presentations in small groups and to whole class
6. Apply sentence mechanics and master spelling of high frequency words

BSS 204-Behavioral Science – II (Problem Solving and Creative Thinking)

1. Recognize the relation critical thinking with various mental processes.
2. Identify hinderance to problem solving processes.
3. Analyse the steps in problem-solving process.
4. Createplan of action applying creative thinking.

FLT 201-French

4. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
5. Students will be able to read and interpret small texts.

6. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLG 201-German

4. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
5. Students will be able to read and interpret small texts.
6. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLS 201-Spanish

4. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
5. Students will be able to read and interpret small texts.
6. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLC 201-Chinese

4. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
5. Students will be able to read and interpret small texts.
6. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

AND002-ANANDAM-IV

7. Awareness and empathy regarding community issues
8. Interaction with the community and impact on society
9. Interaction with mentor and development of Student teacher relationship
10. Interaction among students, enlarge social network
11. Cooperative and Communication skills and leadership qualities
12. Critical thinking, Confidence and Efficiency

BTD 301-Principles of Food Processing

1. Give idea about how food process in industry
2. Learn the various equipment's used in food industry
3. Learn the various equipment's used in food industry.

BTD 302-General Biochemistry

1. Biochemistry majors will gain proficiency in basic laboratory techniques in both chemistry and biology, and be able to create the scientific method to the processes of experimentation and hypothesis testing.

2. Students in the Biochemistry major will be able to apply and effectively communicate scientific reasoning and data analysis in both written and oral forums.
3. Develop your research skills in preparation for a career in the biosciences industry or academic research

BTD 303-General & Applied Microbiology

At the successful completion of this course the student should be able to:

1. Explain general principals and scope of microbiology and diversity of microorganisms
2. Illustrate clear concepts on bacterial cell structure, function, genetics, growth and pathogenesis
3. Demonstrate critical analytical and lab skills in microbiology

BTD331-Food Rheology & Texture

At the successful completion of this course the student should be able to:

1. Explain general principals and scope of food rheology and texture
2. Illustrate clear concepts on viscosity and flow behavior of food
3. Demonstrate critical analytical and lab skills in rheology

BTD332-Industrial Crops

1. Students will familiar with agricultural crops practices.
2. Acquaint with botanical characters of crop plants, nutritional values and importance of crop plants

BTD333-Nanotechnology and its application in Food

At the successful completion of this course the student should be able to:

1. Explain general principals and scope of nanotechnology
2. Illustrate clear concepts on application of nanotechnology in food industry
3. Demonstrate critical analytical and lab skills in nanoparticle synthesis

EVS001-Environmental Sciences

1. Understand the importance, need and scope of the subject.
2. Evaluate local, regional and global environmental topics related to resource use and management.
3. Measure environmental variables and interpret results.
4. Interpret the results of scientific studies of environmental problems and propose solutions to these.
5. Implement “Sustainable development”, in day to day activities.

BCS 301-Communication Skills – I

1. Inculcating creative thinking skills
2. Construct and showcase their communication skills in a creative manner.
3. Comprehending and demonstrating ways of self-introduction
4. Outlining and illustrating presentation Skills

BSS 304-Behavioral Science III (Interpersonal Communication)

5. Demonstrate knowledge of strategies for developing a healthy interpersonal communication.
6. Recognize the importance of transactional analysis, script analysis.
7. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management.
8. Enhance personal effectiveness and performance through effective interpersonal communication

FLT 301-French

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc

FLG 301-German

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc

FLS 301-Spanish

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc

FLC 301-Chinese

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language

2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc

AND003-ANANDAM-III

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BTD 401-Food Chemistry

1. To integrate the principles of chemistry and biochemistry into real-world food science and nutritional issues.
2. To identify the chemical structure of food components including fats, proteins, amino acids, carbohydrates and vitamins to understand how structure determines functional behavior of these food components with respect to food quality, nutrition and safety.
3. To reproduce chemical interactions and reactions with food components; differentiate their effects on the sensory, nutritional and functional properties of foods.

BTD 402-Food Microbiology

1. To introduce to students groups of microorganisms important for food industry
2. To acquaint with role of microbes in manufacture, preservation, spoilage of foods and in food poisoning
3. To develop theoretical and practical skills in Microbiological techniques

BTD 403-Principles of Heat & Mass Transfer

1. To integrate the principles of chemistry and biochemistry into real-world food science and nutritional issues.
2. To identify the chemical structure of food components including fats, proteins, amino acids, carbohydrates and vitamins to understand how structure determines functional behavior of these food components with respect to food quality, nutrition and safety.
3. To reproduce chemical interactions and reactions with food components; differentiate their effects on the sensory, nutritional and functional properties of foods

BTD 404-Mechanics of Fluids

1. Define the different types of fluid and its properties.
2. Understand and analyze the different types of flow
3. Solve simple problems relating to fluid
4. Define, analyze boundary layer
5. Solve simple problems relating to the above concepts

BTD431-Computer simulation & modeling in food processing

1. Define the different types of simulation.
2. Practical application of modeling in the food industry
3. Demonstrate the modeling of heat exchanges, modelling of aseptic processing of liquid and particulate foods

BTD432-Enzymes in Food Processing

1. Understand the Characteristics of enzyme, classification and nomenclature of enzymes
2. Basic knowledge of Enzyme Biochemistry and enzyme kinetics.
3. Understand the basics of enzyme isolation and purification methods.
4. Identify the immobilization techniques and factors affecting it.
5. Know application of enzymes in food processing

BTD433-Marketing Management for food

1. Understand the environment in which marketing works.
2. Observe how companies are utilizing their marketing mix in order to attract and retain customers.
3. Apply the concepts to improve their skills related to marketing and to improve decision making.
4. Visualize the advancements in Marketing.

BCS 401-Communication Skills – II

1. Identify steps to professional communication
2. Identify the key components of meeting, agendas and meeting minutes
3. Understand the key skills and behaviors required to facilitate a group discussion/ presentation
4. Polish current affairs & rapport building

BSS 404-Behavioral Science-IV (Relationship Management)

1. Identify the domains to develop as an individual society and nation level.
2. Recognize different ways to achieve personal excellence, professional power and professional success.
3. Analyse different techniques for career planning, setting goals to maintain focus, stress management for healthy living.
4. Apply different skills to achieve personal and professional success.

FLT 401-French

7. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
8. Students will be able to read and interpret small texts.

9. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLG 401-German

7. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
8. Students will be able to read and interpret small texts.
9. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLS 401-Spanish

7. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
8. Students will be able to read and interpret small texts.
9. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLC 401-Chinese

7. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
8. Students will be able to read and interpret small texts.
9. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

AND004-ANANDAM-IV

13. Awareness and empathy regarding community issues
14. Interaction with the community and impact on society
15. Interaction with mentor and development of Student teacher relationship
16. Interaction among students, enlarge social network
17. Cooperative and Communication skills and leadership qualities
18. Critical thinking, Confidence and Efficiency

BTD 501-Food Quality- Analysis & Assurance

Upon successful completion of the course, the students will be able to:

1. Explain the concept of food quality and importance of maintaining quality of prepared food products by applying fundamental knowledge, through in-class discussions, clicker questions, electronic simulations and exam questions
2. Appreciate the contributions of important advancement in food quality management systems and the historical development of the different organizations in order to

understand contemporary safety and quality issues in a modern context, through clicker questions, class discussion and exam questions

3. Critically evaluate primary quality literature and interpret case studies in the context of quality management, in in-class discussions, clicker questions and exam questions

BTD 502-Processing of Fruits & Vegetables

Upon successful completion of the course, the students will be able to:

1. To acquaint students with post- harvest handling operations.
2. Processing and preservation of fresh commodities.
3. Minimal processing, thermal processing, freezing and other methods of processing.
4. Processed fruit and vegetable products.

BTD 503-Processing of Milk & Milk Products

Upon successful completion of the course, the students will be able to:

1. Describe the physical and chemical properties of milk and milk products
2. Describe the different treatments of milk such heating, homogenization, centrifugation, agitation filtration, concentration and fermentation
3. Prepare/manufacture different dairy products such as cream, butter, ghee, yoghurt, cultured milk, ice cream and cheese using simple and industrial techniques

BTD 504-Food Engineering – I

Upon successful completion of the course, the students will be able to:

1. Give idea about engineering process in industry
2. Learn the various equipments used in food industry.
3. Understand the concept of working equipments used in food industries

BTD 505-Statistics for Biology

Upon successful completion of the course, the students will be able to:

1. Introduction and historical information on Microorganisms and their use in different industries
2. Acquire industrial skills of microbial culture, growth, and practices
3. Demonstrate the advanced application of Microbes in emerging industrial sectors

BTD531-Refrigeration & Air Conditioning

Upon successful completion of the course, the students will be able to:

1. Application of refrigeration systems.
2. Cycles related to various refrigeration systems
3. Various refrigeration system component and working of them.
4. Use of different refrigerants.
5. Analysis of COP for different refrigeration devices.

6. Working of refrigeration system with respect to different cycles.
7. Measurement of humidity in the surrounding

BTD532-Malting & Brewing Technology

Upon successful completion of the course, the students will be able to:

1. Introduction and historical information on brewing
2. Acquire industrial skills for malting process for production of beer
3. Demonstrate the Quality examination, Process measurement and analysis technology.

BTD533-Infestation Control and Grain Storage

Upon successful completion of the course, the students will be able to:

1. Introduction and historical information on food grains storage, causes of deterioration during storage
2. Acquire industrial skills on control, storage structures used and storage of organic food grains.
3. Demonstrate the advanced application of requirements for safe storage, Pre- storage operations

BTD534-Scientific Writing

Upon successful completion of the course, the students will be able to:

1. Explain the importance of integrity (honesty and ethics) in preparing research, reporting research results, and preparing scientific works.
2. Explain the conceptual background, theoretical framework/concept, literature review, experimental research methodology, survey, and qualitative aspects
3. Implement the preparation of experimental research proposals theoretically and practically in the laboratory and the field, survey and qualitative research

BCS 501-Professional Communication Skills – III

Upon successful completion of the course, the students will be able to:

1. Create right selection of words and ideas while also choosing the appropriate channel of form a communication.
2. Demonstrate the ability to analyse a problem and devise a solution in a group.
3. Demonstrate proficiency in the use of written communication.
4. Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 504-Behavioral Science – V (Group Dynamics & Team Building)

Upon successful completion of the course, the students will be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them

FLT 501-French

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses etc

FLG 501-German

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses

FLS 501-Spanish

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

FLC 501-Chinese

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

AND005-ANANDAM-V

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BTD 601-Food Engineering – II

Upon successful completion of the course, the students will be able to:

1. Give idea about engineering process in industry
2. Learn the various equipments used in food industry.
3. Understand the concept of working equipments used in food industries

BTD 602-Processing of Cereals, Pulses & Oilseeds

Upon successful completion of the course, the students will be able to:

1. Understand the basic composition and structural parts of food grains.
2. Aware the importance of physico-chemical properties of food grains.
3. Understand the basics of milling operations for food grains.
4. Identify the problems associated with milling of grains and their solution.
5. Know processing food grains into value added products

BTD 603-Processing of Meat, Fish & Poultry Products

Upon successful completion of the course, the students will be able to:

1. Understand the basic concept meat processing
2. Explain role of livestock in Indian food industry
3. Explain the different techniques used in processing of meat products
4. Have theoretical knowledge of different analytical techniques used in food industry and laboratories for analytical purpose.
5. Have knowledge of storage and transportation of meat products

BTD 604-Food Additives

Upon successful completion of the course, the students will be able to:

1. Understand the Role of Food Additives in Food Processing.
2. Toxicology and Safety Evaluation of Food Additives.
3. Naturally occurring Food Additives.
4. Characteristics of different natural food additives.
5. Characteristics of different synthetic food additives.

BTD 605-Food Plant Sanitation

Upon successful completion of the course, the students will be able to:

1. Give idea about hygiene, hygienic handling of foods
2. Learn the various techniques used for hygiene in food industry.
3. Understand the sanitation equipments used in food industries.

BTD631-Advance Food Technology

Upon successful completion of the course, the students will be able to:

1. Understand the basic concept of samples, sampling techniques and importance in food science.
2. Explain role of water activity in food preservation.
3. Explain the different techniques used in analysis of food samples.
4. Have theoretical knowledge of different analytical techniques used in food industry and laboratories for analytical purpose.
5. Have knowledge of sample extraction and sample preparation techniques

BTD632-Engineering Properties of Food Materials

Upon successful completion of the course, the students will be able to:

1. Introduction and historical information on sphericity, frictional properties, thermal, electrical and optical properties of food materials
2. Acquire industrial skills of engineering properties of food materials, their rheological characteristics and flow behaviour
3. Demonstrate the advanced application of Elastic and Plastic behaviour of fresh and processed foods.

BTD633-Food Product Development

Upon successful completion of the course, the students will be able to:

1. Understand the basic components of new product development.
2. Awareness about testing their acceptability.

3. Understand the basics of production trail.
4. Identify the problems associated with product launching.
5. Knowledge about legal aspects and patenting process.

BCS 601-Communication Skills – IV

1. Create right selection of words and ideas while also choosing the appropriate channel of form a communication.
2. Demonstrate the ability to analyse a problem and devise a solution in a group.
3. Demonstrate proficiency in the use of written communication.
4. Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 604-Behavioral Science-VI (Stress and Coping Strategies)

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyze symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FLT 601-French

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses .
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 601-German

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses .
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 601-Spanish

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language

2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc

FLC 601-Chinese

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses .
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

AND006-ANANDAM-VI

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BTD 701-Principles of Food Biotechnology

Upon successful completion of the course, the students will be able to:

1. Describe the role of bacteria and microbe in industrial and fermented food products.
2. Acquire the ability to use the microbes in research related to different field of Biotechnology.
3. Acquire the knowledge of the concepts in the field of agriculture, veterinary sciences, pharmaceutical industry and food industry etc.
4. Acquire skills of presentation and to use library and internet resources independently.

BTD 702-Packaging of Food Products

Upon successful completion of the course, the students will be able to:

1. Explain various physical and chemical properties of packaging materials and their manufacturing process, through in-class discussions, electronic simulations and exam questions.

2. Communicate clearly about different type of packaging material and there functions, through independent written assignments and exam questions.
3. Appreciate the contributions of packaging material in increasing the shelf life of food products, through clicker questions, class discussion and exam questions.

BTD 703-Principles of Human Nutrition

Upon successful completion of the course, the students will be able to:

1. Understanding of nutritional requirements of human body.
2. Understanding of RDA, water balance and energy balance in human.
3. Understanding of balanced diets and meal planning.
4. Understanding the nutritional problems and causes.
5. Understanding the modification of food for fulfillment of nutrient requirement

BTD 704-Technology of Spices, Plantation Crops & Flavors

Upon successful completion of the course, the students will be able to:

1. Get knowledge about Indian spices and plantation crops.
2. Understand post-harvest technology of spices
3. Understand post-harvest technology of plantation crops

BTD 705-Food Equipment and Plant Design

Upon successful completion of the course, the students will be able to:

1. Explain various types of plant layouts used when installing new food manufacturing plants and lines, through in-class discussions, electronic simulations and exam questions.
2. Communicate clearly about different methods for the optimization of various parameters in food processing operations by using different techniques through independent written assignments and exam questions.
3. Appreciate the contributions of various plant utilities like electricity, water, steam, air etc., through clicker questions, class discussion and exam questions

BTD750-Industrial Training Evaluation

Upon successful completion of the course, the students will be able to:

1. Perform various tasks in a food manufacturing plant.
2. Apply knowledge and academic skills in a food manufacturing plant
3. Develop communication/interpersonal skills and to work as a team with people from diverse background

BTD731-Food Adulteration

Upon successful completion of the course, the students will be able to:

1. Get basic knowledge on various foods and about adulteration
2. Understand the adulteration of common foods and their adverse impact on health
3. Be able to extend their knowledge to other kinds of adulteration, detection and remedies.

BTD732-Management of Food Industry Waste

Upon successful completion of the course, the students will be able to:

1. Know and examine the basic characteristics of wastewater, their concentrations and significance.
2. Understand the design and working principle of conventional treatment processes and the kinetics of biological system
3. Select appropriate processes, depending on the nature of the impurities to be removed to be employed for effluent treatment
4. Knowledge about treatment of food industry waste and disposal
5. Develop understanding for cleaner production techniques.

BTD733-Food Beverages

Upon successful completion of the course, the students will be able to:

1. Emphasize problem solving tools with in food service careers
2. Focus on industry wide trends and work ethics
3. To guide in professional development and leadership skills

BCS 701-Professional Communication Skills – V

1. Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while choosing the appropriate channel of formal communication
3. Apply acquired knowledge with the appropriate selection of channel of formal communication.

BSS 704-Behavioral Science-VII (Individual, Society and Nation)

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyze symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FLT 701-French

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.

3. Students will be able to communicate with complex sentences

FLG 701-German

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences

FLS 701-Spanish

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.

FLC 701-Chinese

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.

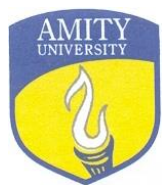
AND007-ANANDAM-VII

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BTD 860-Major Project/Dissertation

1. Demonstrated ability to identify solutions to problems related to the processing of food and to apply and expand upon the theoretical concepts presented in lectures
2. Demonstrated familiarity and competence with the practical skills and techniques used to process food. This will include planning a production run, preparation of raw materials, the use of processing equipment and appropriate methods of packaging and storing finished product

3. Ability to explain the benefits and limitations (scientific and ethical) of producing processed foods and be able to recommend, justify and critique commonly used methods of food processing.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF BIOTECHNOLOGY (AIB)

Bachelor of Science (B.Sc.)

Programme Outcome (PO)

PO1: To identify, formulate and analyse complex problems, and to reach substantial conclusions using principles of sciences.

PO2: To apply various statistical tools to research problems and to develop the ability to build statistical knowledge.

PO3: To develop scientific intuition, ability and techniques to tackle problems, either theoretical or experimental in nature.

PO4: To inculcate scientific thinking, awareness and ability to use necessary current techniques, skills and modern tools.

PO5: To understand the impact of scientific solutions on societal and environmental contexts and to demonstrate knowledge of and need for sustainable development.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF BIOTECHNOLOGY
(AIB)**

Bachelor of Science (Honours) Biotechnology

Programme Code: BSB

12044

Duration – 3 Years Full Time

Programme Structure

Credit Summary Sheet

Semester	Core (CC)	Domain Electives (DE)	VA	Open Electives(OE)	Total
1	16	3	4	-	25
2	16	3	4	3	28
3	13	3	4	3	25
4	15	3	4	3	27
5	22	3	4	3	34
6	25				25
Total	107	15	20	12	164

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective

Program Specific Outcomes (PSOs)

- Provide students with a good foundation of knowledge and hands-on practical experience of the different fields of biotechnology.
- Cultivate an integrated perspective of different courses of biotechnology.
- Equip students with various valuable transferable skills like presentation techniques, communication skills, exposure to problem solving, teamwork and the use of information technology.
- Aid the students of this 3-year programme to bridge the gap between industry and academia

Program Structure

AMITY INSTITUTE OF BIOTECHNOLOGY

B. Sc. (Hon.) Biotechnology						
Semester I						
Code	Course	Category	L	T	P/FW	Credit Units
BSB 101	Biochemistry	CC	3	-	-	3
BSB 102	Bioanalytical Techniques	CC	2	-	-	2
BSB103	Cell Biology	CC	3	-	-	3
BSB104	Plant science- I	CC	2	-	-	2
BSB 105	Chemistry – I	CC	2	-	-	2
BSB 121	Biochemistry -Lab	CC	-	-	2	1
BSB123	Cell Biology -Lab	CC	-	-	2	1
BSB124	Plant science- I-Lab	CC	-	-	2	1
BSB 125	Chemistry – I-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BSB130	Biochemical basis of disease	DE	3	-	-	3
BSB131	Biophysics	DE				
BSB132	Basics on Biotechnology	DE				
AND001	ANANDAM-I	VA	-	-	-	2
BCS 101	English	VA	1	-	-	1
BSS 103	Understanding Self for Effectiveness – I	VA	1	-	-	1

FLT 101	Foreign Language - I	VA	2	-	-	2
FLG 101	French					
FLS 101	German					
FLC 101	Spanish					
	Chinese					
Total						25

B. Sc. (Hon.) Biotechnology						
Semester II						
Code	Course	Category	L	T	P/FW	Credit Units
BSB 201	Metabolic Regulation	CC	3	-	-	3
BSB 202	Plant science -II	CC	2	-	-	2
BSB 203	Microbiology	CC	3	-	-	3
BSB 204	Chemistry - II	CC	2	-	-	2
BSB 205	Genetics	CC	2	-	-	2
BSB 222	Plant science –II -Lab	CC	-	-	2	1
BSB 223	Microbiology-Lab	CC	-	-	2	1
BSB 224	Chemistry - II-Lab	CC	-	-	2	1
BSB 225	Genetics-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BSB 230	Term Paper	DE	3	-	-	3
BSB 231	Bioinformatics	DE				
BSB 232	Enzyme technology	DE				
OE II	Open elective II	OE	3	-	-	3

AND002	ANANDAM-II	VA	-	-	-	2
BCS 201	English	VA	1	-	-	1
BSS 203	Behavioral Science – II	VA	1	-	-	1
FLT 201	Foreign Language - II	VA	2	-	-	2
FLG 201	French					
FLS 201	German					
FLC 201	Spanish					
	Chinese					
Total						28

B. Sc. (Hon.) Biotechnology						
Semester III						
Code	Course	Category	L	T	P/FW	Credit Units
BSB 301	Molecular Biology	CC	2	-	-	2
BSB 302	Animal science- I	CC	3	-	-	3
BSB 303	Chemistry - III	CC	2	-	-	2
BSB 321	Molecular Biology -Lab	CC	-	-	2	1
BSB 323	Chemistry - III-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BSB 330	Term Paper	DE	3	-	-	3
BSB 331	Protein engineering	DE				
BSB 332	Food Biotechnology	DE				
OE3	Open Elective III	OE	3	-	-	3
AND003	ANANDAM-III	VA	-	-	-	2
EVS001	Environmental Sciences	CC	4	-	-	4

BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 303	Understanding Self for Effectiveness – III	VA	1	-	-	1
FLT 301	Foreign Language - III	VA	2	-	-	2
FLG 301	French					
FLS 301	German					
FLC 301	Spanish Chinese					
Total						25

B. Sc. (Hon.) Biotechnology						
Semester IV						
Code	Course	Category	L	T	P/FW	Credit Units
BSB 401	Recombinant DNA Technology	CC	3	-	-	3
BSB 402	Structural Biology	CC	2	-	-	2
BSB 403	Immunology & Immunotechnology	CC	2	-	-	2
BSB 404	Scientific Writing	CC	3	-	-	3
BSB 405	Biomaterials and biomimetics	CC	2	-	-	2
BSB 421	Recombinant DNA Technology -Lab	CC	-	-	2	1
BSB 422	Structural Biology-Lab	CC	-	-	2	1
BSB 423	Immunology & Immunotechnology-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						

BSB 430	Term Paper & Industry Visit	DE	3	-	-	3
BSB 431	Downstream processing	DE				
BSB 432	Pharmaceutical Technology & Biotechnology	DE				
OE IV	Open elective IV	OE	3	-	-	3
AND004	ANANDAM-IV	VA	-	-	-	2
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 403	Understanding Self for Effectiveness – IV	VA	1	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language - IV French German Spanish Chinese	VA	2	-	-	2
Total						27

B. Sc. (Hon.) Biotechnology						
Semester V						
Code	Course	Category	L	T	P/FW	Credit Units
BSB 501	Plant Biotechnology	CC	3	-	-	3
BSB 502	Animal Biotechnology	CC	3	-	-	3
BSB 503	Bioenterpreneurship	CC	3	-	-	3
BSB 504	Genomics & Proteomics	CC	3	1	-	4
BSB505	Clinical Research & Pharmacovigilance	CC	3	-	-	3
BSB550	Industrial Training Evaluation	CC	-	-	-	3

BSB 521	Plant Biotechnology -Lab	CC	-	-	2	1
BSB 522	Animal Biotechnology-Lab	CC	-	-	2	1
BSB 524	Genomics & Proteomics-Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
BSB 530	Statistics for Biology	DE	3	-	-	3
BSB 531	Bioprocess technology	DE				
BSB 532	IPR & regulatory affairs	DE				
OE V	Open elective V	OE		-	-	3
AND005	ANANDAM-V	VA	-	-	-	2
BCS 501	Communication Skills – III	VA	1	-	-	1
BSS 503	Understanding Self for Effectiveness – V	VA	1	-	-	1
FLT 501	Foreign Language - V	VA	2	-	-	2
	French	VA				
FLG 501	German	VA				
FLS 501	Spanish	VA				
FLC 501	Chinese	VA				
Total						34

B.Sc Biotechnology: 6th SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credits
BSB660	Project /Dissertation	CC	-	-	-	25
	TOTAL					25

COURSE OUTCOMES

AMITY INSTITUTE OF BIOTECHNOLOGY

B.Sc.(H) BIOTECHNOLOGY

BSB101

COURSE OUTCOMES (CO)

CO 1	Apply their knowledge of structure of biomolecules to the functions that they carry out in the cell.
CO 2	Appreciate the vast diversity of biochemicals that bring about all functions of life.
CO 3	The associated lab work will enable them to see how reactions take place inside living cells

BSB 102

COURSE OUTCOMES (CO)

CO 1	To identify and use various instruments and tools for analysis of biological products.
CO 2	To understand principles, applications and limitations of various bio analytical tools and techniques.
CO 3	To compare various similar techniques and will be able to understand importance of one

BSB 103

COURSE OUTCOMES (CO)

CO 1	Identify basic concepts and functional interrelationships of different cell structures and its components.
CO 2	Generate ability to analyze and interpret the behavior of cells in their microenvironment with emphasis on phenomenon that regulates cell signaling, cell cycle and cancer
CO 3	Understand the basic concepts of life and cell, which will act as a foundation for all further courses in Biotechnology

BSB 104

COURSE OUTCOMES (CO)

CO 1	Identify basic concepts and functional interrelationships of different cell structures and its components.
------	--

CO 2	Generate ability to analyze and interpret the behavior of cells in their microenvironment with emphasis on phenomenon that regulates cell signaling, cell cycle and cancer
CO 3	Understand the basic concepts of life and cell, which will act as a foundation for all further courses in Biotechnology

BSB 105

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

BSB 123

COURSE OUTCOMES (CO)

CO 1	Identify basic concepts and functional interrelationships of different cell structures and its components.
CO 2	Generate ability to analyze and interpret the behavior of cells in their microenvironment with emphasis on phenomenon that regulates cell signaling, cell cycle and cancer
CO 3	Understand the basic concepts of life and cell, which will act as a foundation for all further courses in Biotechnology

BSB 124

COURSE OUTCOMES (CO)

CO 1	Identify basic concepts and functional interrelationships of different cell structures and its components.
CO 2	Generate ability to analyze and interpret the behavior of cells in their microenvironment with emphasis on phenomenon that regulates cell signaling, cell cycle and cancer
CO 3	Understand the basic concepts of life and cell, which will act as a foundation for all further courses in Biotechnology

BSB 125

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

FLC001

COURSE OUTCOMES (CO)

CO 1	Identify and express in French vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes
CO 3	Demonstrate comprehension of nuance
CO 4	Narrate clearly ideas, themes in simple standard French

BSB130

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

BSB 131

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between material using different techniques

BSB 132

COURSE OUTCOMES (CO)

CO 1	Investigate the role of different branches of Biotechnology.
CO 2	summarize and inferring the field of their interest among the different papers of Biotechnology.
CO 3	Execute the concepts in the field of agriculture, veterinary sciences, pharmaceutical industry and food industry etc.

BCS101

COURSE OUTCOMES (CO)

CO 1	Foundation of English Language.
CO 2	Help students to inculcate creative & aesthetic sensitivity
CO 3	Appreciation and analysis of the prescribed literary texts

BSS101

COURSE OUTCOMES (CO)

CO 1	Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
CO 2	Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
CO 3	Recognize different types of human rights and its importance.

BSB 201

COURSE OUTCOMES (CO)

CO 1	To provide basic knowledge for cell and body metabolism .
CO 2	To provide knowledge about lipid ,carbohydrateand nucleic acid metabolism.
CO 3	To provide knowledge about application of biochemical pathways and diseases

BSB202

COURSE OUTCOMES (CO)

CO 1	Investigate the effects of tonicity on plant cell system
CO 2	Create stress to see the effects on rate of photosynthesis in plants
CO 3	Apply staining techniques for identification of various anatomical features of plants

BSB203

COURSE OUTCOMES (CO)

CO 1	Acquire the ability to use the microbes in research related to different field of Biotechnology.
CO 2	Acquire the knowledge of the concepts in the field of agriculture, veterinary sciences, pharmaceutical industry and food industry etc.

CO 3	Acquire skills of presentation and to use <i>library and internet resources independently</i> .
------	---

BSB 204

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

BSB 205

COURSE OUTCOMES (CO)

CO 1	aware of the genetics and its significance.
CO 2	able to identify and solve problems related to Mendelian and Non Mendalian genetics.
CO 3	Able to understand gene structure, mutation and sex linked inheritance.

BSB 222

COURSE OUTCOMES (CO)

CO 1	Investigate the effects of tonicity on plant cell system
CO 2	Create stress to see the effects on rate of photosynthesis in plants
CO 3	Apply staining techniques for identification of various anatomical features of plants

BSB 223

COURSE OUTCOMES (CO)

CO 1	Acquire the ability to use the microbes in research related to different field of Biotechnology.
CO 2	Acquire the knowledge of the concepts in the field of agriculture, veterinary sciences, pharmaceutical industry and food industry etc.
CO 3	Acquire skills of presentation and to use <i>library and internet resources independently</i> .

BSB 225

COURSE OUTCOMES (CO)

CO 1	The students will have skills to analyze results of experiments related to Mendelian genetics
CO 2	The students will have knowledge of problem solving related to above said experiments

BSB 224

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

BSB 225

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

BSB 230

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

BSB 231

COURSE OUTCOMES (CO)

CO 1	Investigate about various publicly available biological datasets, their importance various databases and will go through its importance in biological prospect.
CO 2	Create novel ideas to applying various tools for extracting biologically valuable information responsible for various functions by applying computational methods.
CO 3	Apply these data sources and software for investigation of novel biological problems.

BSB232

COURSE OUTCOMES (CO)

CO 1	To obtain basic knowledge about the relationship between properties and structure of the enzymes, their mechanism of action and kinetics of enzymatic reactions. They should understand the regulatory mechanisms of enzyme activity, enzyme inducers and repressors.
CO 2	To understand the different methods of enzyme immobilization
CO 3	To understand the functions of the different bioreactors and its designing parameters.

BCS 201

COURSE OUTCOMES (CO)

CO 1	Foundation of English Language.
CO 2	Help students to inculcate creative & aesthetic sensitivity
CO 3	Appreciation and analysis of the prescribed literary texts

BSS 201

COURSE OUTCOMES (CO)

CO 1	Understanding self & process of self exploration
CO 2	Learning strategies for development of a healthy self esteem
CO 3	Importance of attitudes and its effective on personality

FL2

COURSE OUTCOMES (CO)

CO 1	Identify and express in vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound
CO 4	Narrate clearly ideas, themes in simple language

BSB 301

COURSE OUTCOMES (CO)

CO 1	Develop a broad and coherent body of knowledge, particularly in molecular biology.
CO 2	Isolation of the DNA from the prokaryotic and eukaryotic cell systems.
CO 3	Critically and quantitatively analyze scientific data, either their own original data or the published data of others.

BSB302

CO 1	Investigate the effects of tonicity on plant cell system
CO 2	Create stress to see the effects on rate of photosynthesis in plants
CO 3	Apply staining techniques for identification of various anatomical features of plants

BSB 303

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

BSB 321

COURSE OUTCOMES (CO)

CO 1	Develop a broad and coherent body of knowledge, particularly in molecular biology.
CO 2	Isolation of the DNA from the prokaryotic and eukaryotic cell systems.
CO 3	Critically and quantitatively analyze scientific data, either their own original data or the published data of others.

BSB 323

COURSE OUTCOMES (CO)

CO 1	Understand the structure and chemical transformations of inorganic molecules.
CO 2	Understand the distinguish between natural and synthetic material
CO 3	Basic idea about radioactive element,catalysis, chemical reaction etc

BSB 330

COURSE OUTCOMES (CO)

CO 1	provide students with an opportunity to develop in-depth expertise in any topic.
CO 2	discuss and present your argument with evidence

BSB 331

COURSE OUTCOMES (CO)

CO 1	Understand various aspects of protein structure and engineering including rational design and directed evolution.
CO 2	Identify key experimental processes required for engineering a protein, and knowledge of how to apply them to solve specific biochemical problems.
CO 3	Investigate and explain heterologous expression of proteins and also techniques for protein design.

BSB 332

COURSE OUTCOMES (CO)

CO 1	To obtain basic knowledge about the relationship between properties and structure of the enzymes, their mechanism of action and kinetics of enzymatic reactions. They should understand the regulatory mechanisms of enzyme activity, enzyme inducers and repressors.
CO 2	To understand the different methods of enzyme immobilization
CO 3	To understand the functions of the different bioreactors and its designing parameters.

EVS001

COURSE OUTCOMES (CO)

CO 1	To obtain basic knowledge about the relationship between properties and structure of the enzymes, their mechanism of action and kinetics of enzymatic reactions. They should understand the regulatory mechanisms of enzyme activity, enzyme inducers and repressors.
CO 2	To understand the different methods of enzyme immobilization
CO 3	To understand the functions of the different bioreactors and its designing parameters.

BCS 301

COURSE OUTCOMES (CO)

CO 1	Foundation of English Language.
CO 2	Help students to inculcate creative & aesthetic sensitivity
CO 3	Appreciation and analysis of the prescribed literary texts

BSS301

COURSE OUTCOMES (CO)

CO 1	Understanding self & process of self exploration
CO 2	Learning strategies for development of a healthy self esteem
CO 3	Importance of attitudes and its effective on personality

FL3

COURSE OUTCOMES (CO)

CO 1	Identify and express in vocabulary and grammar norms
CO 2	Interpret different types of texts as well as cultural ideas and themes.
CO 3	Demonstrate comprehension of nuance between script and sound
CO 4	Narrate clearly ideas, themes in simple language

BSB 401

COURSE OUTCOMES (CO)

CO 1	Develop a broad and coherent body of knowledge tools and strategies used in particularly in recombinant DNA Technology
CO 2	Gain a detailed understanding of the applications of recombinant DNA technology and genetic engineering. from an academic and industrial perspective
CO 3	Students will become familiar with the tools and techniques of genetic engineering DNA manipulation enzymes, genome and transcriptome analysis and manipulation tools, gene expression regulation, production and characterization of recombinant proteins.
CO 4	acquire knowledge of advances in biotechnology- healthcare, agriculture, and environment cleanup via recombinant DNA technology

BSB 402

COURSE OUTCOMES (CO)

CO 1	Understand aspects of protein structure and function including protein folding, degradation, development of new therapies, molecular interactions and recognition
CO 2	Understand key experimental processes required to evaluate protein structure, function and gene expression, and knowledge of how to apply them to solve specific

	biochemical problems.
CO 3	Students in the structural biology major will be able to apply and effectively communicate scientific reasoning and data analysis in both written and oral forums
CO 4	Develop your research skills in preparation for a career in the biosciences industry or academic research.

BSB 403

COURSE OUTCOMES (CO)

CO 1	Have a clear understanding of human body's defense mechanisms against various infections
CO 2	Identify the importance of different organs and cells of immune system
CO3	Understand the importance of interaction of all immunological components inside the body.

BSB 405

COURSE OUTCOMES (CO)

CO 1	biomaterials include nano-biomaterials, smart biomaterials, hybrid biomaterials, nano-biocomposites
CO 2	hierarchically porous biomaterials and tissue scaffolds
CO 3	summarises key research in this important field.

BSB 421

COURSE OUTCOMES (CO)

CO 1	become familiar with the tools and techniques of genetic engineering DNA manipulation enzymes, genome and transcriptome analysis and manipulation tools, gene expression regulation, production and characterization of recombinant proteins.
CO 2	Students will acquire knowledge of advances in biotechnology- healthcare, agriculture, and environment cleanup via recombinant DNA technology

BSB 422

COURSE OUTCOMES (CO)

CO 1	Understand the evolution of protein structural motifs and domains and associate this with function
CO 2	Use on-line structural databases and tools to predict the properties, structure and function of proteins.
CO 3	Critically and quantitatively analyse scientific data, either their own original data or the published data of others
CO 4	Define a specific hypothesis and design an experiment to test it.

BSB 423

COURSE OUTCOMES (CO)

CO 1	Have a clear understanding of human body's defense mechanisms against various infections
CO 2	Identify the importance of different organs and cells of immune system
CO 3	Understand the importance of interaction of all immunological components inside the body.

BSB 430

COURSE OUTCOMES (CO)

CO 1	Create right selection of words and ideas while also choosing the appropriate topic
CO 2	Demonstrate proficiency in the use of written communication.
CO 3	Demonstrate proficiency in justifying a scientific doubt

BSB 432

COURSE OUTCOMES (CO)

CO 1	Understand the role of Pharmaceutical technology and biotechnology in Pharmaceutical Industries.
CO 2	Understanding of Pharmaceutical Dosage Forms & New Drug Delivery Systems.
CO 3	Understanding of Biotechnology based Pharmaceutical products.

BSS 403

COURSE OUTCOMES (CO)

CO 1	Compare the difference between the groups and teams and their strength and weaknesses. Also, the internal and external factors that affect their functioning.
CO 2	Access when there is a need of group formation and when it is needed to be transformed into team.
CO 3	Identify the characteristics of leaders and the power practiced by them.

BSB 404

COURSE OUTCOMES (CO)

CO 1	Enhancement of understanding of the molecular basis of gene structure, expression and regulation in prokaryotes and eukaryotes
CO 2	Integrate skills in solving problems and analyzing data using a molecular and genetic approach
CO 3	Develop theoretical and technical skills required for industrial and scientific application of protein

BSB 4431

COURSE OUTCOMES (CO)

CO 1	Describe the basic techniques of downstream processing.
CO 2	Demonstrate awareness about Filtration, Dialysis, Electrophoresis, crystallization & drying
CO 3	Express knowledge of Chromatographic techniques of bioseparations
CO 4	Analyze and design the necessary steps for downstream processing of bioproducts

BCS 401

COURSE OUTCOMES (CO)

CO 1	Identify steps to professional communication
CO 2	Identify the key components of meeting, agendas and meeting minutes
CO 3	Understand the key skills and behaviors required to facilitate a group discussion/presentation

CO 4	Polish current affairs& rapport building
------	--

BSB 501

COURSE OUTCOMES (CO)

CO 1	Investigate the effects of growth hormones on plant cell culture system
CO 2	Create awareness in commercialization of plants by culturing them under in vitro conditions
CO 3	Application of protoplast engineering for production of disease free plants

BSB 502

COURSE OUTCOMES (CO)

CO 1	Investigate the effects of tonicity on plant cell system
CO 2	Create stress to see the effects on rate of photosynthesis in plants
CO 3	Apply staining techniques for identification of various anatomical features of plants

BSB 504

COURSE OUTCOMES (CO)

CO 1	Enhancement of understanding of the molecular basis of gene structure, expression and regulation in prokaryotes and eukaryotes
CO 2	Integrate skills in solving problems and analyzing data using a molecular and genetic approach
CO 3	Develop theoretical and technical skills required for industrial and scientific application of protein

BSB 505

COURSE OUTCOMES (CO)

CO 1	Understanding of Drug Discovery and Development Process
CO 2	Understanding for Profile of Clinical research and pharmacovigilance organizations

CO 3	Understanding of drug regulatory aspects behind the Clinical research and pharmacovigilance
CO4	Understanding of Clinical trials designs and control

BSB 522

COURSE OUTCOMES (CO)

CO 1	Develop the theoretical and empirical concepts of cell culture and investigate the newer applications of cell culture
CO 2	Demonstrate the principles and applications of hybridoma technology, IVF-ET, animal COning and vaccine development
CO 3	Apply the concepts & techniques for the applications of transgenic animals with reference to animal models and discuss the public and ethical concerns and associated risks over the use of animal biotechnology.
CO 4	Develop the research skills in preparation for a career in the biosciences industry or academic research

BSB 523

COURSE OUTCOMES (CO)

CO 1	To understand elementary mathematical statistics including deriving simple results and solving problems.
CO 2	To develop various concepts and techniques of statistics useful in business.
CO 3	To develop the ability to analyze a problem, apply the appropriate statistical techniques for problem solving and interpret the results.
CO 4	To solve simple data-analytic problems by hand and also use computers for analyzing problems involving large datasets with the help of statistical software

BSB 524

COURSE OUTCOMES (CO)

CO 1	Integrate skills in solving problems and analyzing data using a molecular and genetic approach
CO 2	Develop theoretical and technical skills required for industrial and scientific application of proteins.

BSB 531

COURSE OUTCOMES (CO)

CO 1	Introduction to various culture methods
CO 2	Understanding of fermenter designs
CO 3	Process operation and control and monitoring at industrial level
CO 4	Students will be well trained to choose and design technologies for the industrial manufacture of food products, with due regard to raw materials, energy, economics and sustainability in the system of industrial food technology and nutrition.

BSB 532

COURSE OUTCOMES (CO)

CO 1	Understand the role of Intellectual Property Rights
CO 2	Understanding of filing process of Patent for invention.
CO 3	Understanding of the role WIPO & Indian Patent agency

BSS 503

COURSE OUTCOMES (CO)

CO 1	Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
CO 2	Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
CO 3	Recognize different types of human rights and its importance.

BCS 501

COURSE OUTCOMES (CO)

CO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CO 3	Demonstrate proficiency in the use of written communication.
CO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSB 503

COURSE OUTCOMES (CO)

CO 1	develop the understanding of management of entrepreneurship
CO 2	acquaint the students with various aspects of entrepreneurship business.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF BIOTECHNOLOGY (AIB)

Master of Technology (M.Tech.)

Programme Outcome (PO)

PO1- To acquire skills in modern techniques, methodologies, and tools to be innovative and creative.

PO2- To solve organizational problems arising from legal and technology framework and products, and exhibit professionalism, and ethical attitude of an entrepreneur.

PO3- To identify, evaluate and assess risks and payoffs in monetary and non-monetary terms and to work with multidisciplinary subjects in industries and research.

PO4- To communicate effectively in written and verbal forms.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF BIOTECHNOLOGY
(AIB)**

Master of Technology (Biotechnology)

Programme Code: MTB

12107

Duration – 2 Years Full Time

Programme Structure

Program Specific Outcomes (PSOs)

The objective of the programme is to highlight the role played by biotechnology in modern society and its relevance to sustainable development. It seeks to provide the following:

PSO-I	Graduates will be able to identify, analyze and understand problems related to biotechnology engineering and finding valid conclusions with basic knowledge in biotechnology engineering with special emphasis on optimization and scale up.
PSO-II	Graduates will be able to design and develop solution to biotechnology engineering problems by applying appropriate tools while keeping in mind safety factor for healthy environmental & society.
PSO-III	Solve organizational problems arising from a legal and technology framework and products, exhibit professionalism, ethical attitude to become an entrepreneur.
PSO-IV	Identify, evaluate and assess risks and payoffs in monetary and non-monetary terms and Ability to work with multidisciplinary subjects in industries and research.

Program Structure

M. Tech. Biotechnology: I Semester						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MTB101	Advanced Biochemistry & Metabolic Regulation	CC	3	-	-	3
MTB102	Advanced Microbial Biotechnology	CC	3	1	-	4
MTB103	Advanced Bioinformatics	CC	3	-	-	3
MTB104	Cellular and Molecular Biotechnology	CC	3	-	-	3
MTB121	Advanced Biochemistry & Metabolic Regulation Lab	CC	-	-	2	1
MTB122	Advanced Microbial Biotechnology Lab	CC	-	-	2	1
MTB123	Advanced Bioinformatics Lab	CC	-	-	2	1
MTB124	Cellular and Molecular Biotechnology Lab	CC	-	-	2	1
AND001	ANANDAM-I	CC	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MTB130	Instrumentation in Biotechnology	DE	3	-	-	3
MTB131	BIOSAFETY, BIOETHICS & IPR	DE		-	-	-

MTB132	Industrial Safety & Hazards	DE				
BCS 111	Communicational Skills - I	VA	1	-	-	1
BSS111	Behavioural Science I (Self Development and Interpersonal Skills)	VA	1	-	-	1
FLT 111	French	VA	2	-	-	2
FLG 111	German					
FLS 111	Spanish					
FLC 111	Chinese					
FLGA2111	Foreign Language German					
FLSA2111	Foreign Language Spanish					
NCVA	-	NCVA	-	-	-	-
	TOTAL					26

M. Tech. Biotechnology: II Semester

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MTB201	Enzymology & Protein Engineering	CC	3	-	-	3
MTB202	Bioprocess & Fermentation Technology	CC	3	-	-	3
MTB203	Advanced Immunotechnology	CC	3	-	-	3
MTB204	Advanced Biostatistics and Scientific Writing	CC	3	-	-	3
MTB205	Advanced Medical Biotechnology	CC	3	-	-	3
MTB221	Enzymology & Protein Engineering Lab	CC	-	-	2	1
MTB222	Bioprocess & Fermentation Technology Lab	CC	-	-	2	1
MTB223	Advanced Immunotechnology Lab	CC	-	-	2	1
AND002	ANANDAM-II	CC	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MTB230	Environmental Biotechnology	DE	3	-	-	3
MTB231	Entrepreneurship development in Biotechnology	DE				

MTB232	Pharmaceutical Technology & Biotechnology	DE				
OE	Open Elective -I	OE	3	-	-	3
BCS 211	Communicational Skills - II	VA	1	-	-	1
BSS211	Behavioural Science – II (Behavioral Communication and Relationship Management)	VA	1	-	-	1
	Foreign Language - II	VA	2		-	2
FLT 211	French					
FLG 211	German					
FLS 211	Spanish					
FLC 211	Chinese					
FLGA2211	Foreign Language German					
FLSA2211	Foreign Language Spanish					
	TOTAL					30

M. Tech. Biotechnology: III Semester

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MTB301	Bioprocess Plant Design	CC	3	-	-	3
MTB302	Downstream Processing	CC	3	-	-	3
MTB303	Nanobiotechnology	CC	3	-	-	3
MTB304	Recombinant DNA Technology	CC	3	-	-	3
MTB305	Genomics & Proteomics	CC	2	-	-	2
MTB322	Downstream Processing Lab	CC	-	-	2	1
MTB323	Nanobiotechnology Lab	CC	-	-	2	1
MTB324	Recombinant DNA Technology Lab	CC	-	-	2	1
MTB325	Genomics & Proteomics Lab	CC	-	-	2	1
AND003	ANANDAM-III	CC	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MTB330	Advanced Food Technology	DE	3	-	-	3
MTB331	Tissue Engineering	DE				
MTB332	Drug Discovery & Development	DE				
OE	Open Elective-II	OE	3	-	-	3
BCS 311	Communicational Skills - III	VA	1	-	-	1
BSS311	Behavioral Science III	VA	1	-	-	1

	(Leading Through Teams)					
FLT 311	Foreign Language - III French	VA	2	-	-	2
FLG 311	German					
FLS 311	Spanish					
FLC 311	Chinese					
FLGA2311	Foreign Language German					
FLSA2311	Foreign Language Spanish					
	TOTAL					30

M. Tech. Biotechnology: IV Semester

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MTB460	Major Project /Dissertation	CC	-	-	-	30
	TOTAL					30

COURSE OUTCOMES

AMITY INSTITUTE OF BIOTECHNOLOGY

M. Tech. Biotechnology

MTB101: ADVANCED BIOCHEMISTRY AND METABOLIC REGULATION

1. Aware of the metabolic pathways
2. able to identify and solve problems related to biochemical disorders
3. Able to understand cell metabolism and its applications in various sectors.

MTB102: ADVANCED MICROBIAL BIOTECHNOLOGY

1. Explain general principals and scope of microbiology and diversity of microorganisms
2. Illustrate clear concepts on bacterial cell structure, function, genetics, growth and pathogenesis
3. Demonstrate critical analytical and lab skills in microbiology
4. Evaluate microorganisms for different biotechnological applications

MTB103: ADVANCED MICROBIAL BIOTECHNOLOGY

1. Investigate about various publicly available biological datasets at various database and will understand the data attributes with information stored in it.
2. Create new projects by applying various tools to correct the existing data interpretation issues by applying computational methods.
3. Apply these data sources and software for investigation of novel biological problems
4. Develop new protocols and methods for biological discoveries.

MTB104: CELLULAR AND MOLECULAR BIOTECHNOLOGY

1. Describe the organization of biomembranes, membrane trafficking, cell signaling molecules, and signal transduction pathways
2. Describe different stages of cell division and cell cycle check points.
3. Describe DNA replication, recombination, repair, and mutations
4. Apply the knowledge of gene expression in biotechnology

MTB121: ADVANCED BIOCHEMISTRY AND METABOLIC REGULATION -Lab

1. aware of the metabolic pathways
2. able to identify and solve problems related to biochemical disorders
3. Able to understand cell metabolism and its applications in various sectors.

MTB122: ADVANCED MICROBIAL BIOTECHNOLOGY –Lab

1. Explain general principals and scope of microbiology and diversity of microorganisms
2. Illustrate clear concepts on bacterial cell structure, function, genetics, growth and pathogenesis
3. Demonstrate critical analytical and lab skills in microbiology
4. Evaluate microorganisms for different biotechnological applications

MTB123: ADVANCED BIOINFORMATICS –Lab

1. Investigate about various publicly available biological datasets at various database and will understand the data attributes with information stored in it.
2. Create new projects by applying various tools to correct the existing data interpretation issues by applying computational methods.
3. Apply these data sources and software for investigation of novel biological problems.
4. Develop new protocols and methods for biological discoveries.

MTB124: CELLULAR AND MOLECULAR BIOTECHNOLOGY –Lab

1. Develop a broad and coherent body of knowledge particularly in cell biology, and molecular biology.
2. Isolation of the DNA, chloroplast and chromoplast from the prokaryotic and eukaryotic cell system.
3. Critically and quantitatively analyze scientific data, either their own original data or the published data of others.
4. Define a specific hypothesis and design an experiment to test it.

MTB130: INSTRUMENTATION IN BIOTECHNOLOGY

1. To demonstrate an understanding of the theory, proper operation, maintenance and applications of common analytical laboratory instruments, including equipment for centrifugation, electrophoresis, spectrophotometry, and chromatography.
2. To demonstrate qualitative and quantitative analytical skills with various instruments using common biotechnology laboratory protocols.
3. Students will develop critical thinking skills relevant to biotechnology by performing experiment and relevant data analysis, troubleshooting of experiments and equipment and become familiar with safe laboratory practices, able to identify unsafe conditions and

taking corrective action, learning proper handling and disposal techniques for hazardous materials.

4. Students will begin to gain laboratory independence by cleaning and preparing items for the lab and preparing biological and/or chemical materials, as well as other items used in experiments.

MTB131: BIOSAFETY, BIOETHICS & IPR

1. Investigate the matter that the particular subject matter comes in the ambit of copyright/patent or not and we can get the right into this regard or not.
2. Create his mind that what is innovation and what are the inventive step and industrial use of subject matter that could be patentable.
3. Apply for patent/copyright before the appropriate authority
4. Develop your knowledge regarding infringement of your right. Students will come to know that what the act is amount to infringement and what are the remedies available against such infringement.

MTB132: INDUSTRIAL SAFETY AND HAZARDS

1. Investigate different types of hazards and prevention methods.
2. Create plant layout as per site selection based on safety measures and industrial hygiene.
3. Apply prevention methods to control occupational diseases.
4. Develop a framework for management according to philosophy and need for Industrial safety keeping in view of various applicable laws and suggest Government for implementation.

BCS111: Communication Skills -I

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Apply their acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the power of Words.

BSS111: Behavioural Science I (Self Development and Interpersonal Skills)

1. Develop your understanding of who you are; what your core purpose is, what your values are and what limits your success
2. Manage your emotions and feelings more effectively to have the impact that you need
3. Develop the way that you regulate and control your emotions
4. Learn about your behavioral preferences to become more self-awareness

FLT111: FRENCH – I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language.
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLG111: GERMAN – I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLS111: SPANISH – I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLC111: CHINESE – I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

AND001: Anandam-I

1. Awareness and empathy regarding community issues.
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

MTB201: ENZYMOLOGY AND PROTEIN ENGINEERING

1. Understand various aspects of protein structure and engineering including rational design and directed evolution.
2. Identify key experimental processes required for engineering a protein, and knowledge of how to apply them to solve specific biochemical problems.
3. Investigate and explain heterologous expression of proteins and also techniques for protein design.
4. Describe the various screening techniques used for selection and/or screening of novel protein variants with improved properties.

MTB202: BIOPROCESS AND FERMENTATION TECHNOLOGY

1. Function at a technically competent level in Biotechnology industries.
2. Design and develop biological processes and products required to become an entrepreneur.
3. Critically analyse lacunae in bioprocesses and solve problems of bioprocesses in industry

MTB203: ADVANCED IMMUNOTECHNOLOGY

1. Investigate whole range of areas targeted towards bringing about solutions to various diseases that increase human morbidity and mortality.
2. Create Explain, debate and demonstrate to lay audiences the application of immune techniques to solve the problems of society.
3. Prevent human diseases, diagnose them early and also find solutions (therapeutic) that can manage the medical problem
4. Develop strategies of immunological diseases and control measure of human and animal health

MTB204: ADVANCE BIOSTATISTICS AND SCIENTIFIC WRITING

1. Understand the role of Research methodology and scientific writing in biotechnology, nanotechnology and environmental sciences.
2. Understanding the basics of research methodologies for carrying out research work

3. Understanding of the components of scientific writing of the research and review papers
4. Understanding of the relevant selection of the journals for communication of the manuscripts

MTB205: ADVANCED MEDICAL BIOTECHNOLOGY

1. Develop the theoretical and empirical concepts of disease diagnosis for a successful career in Biotechnology and allied industries.
2. Demonstrate the principles and applications of diseases therapy to solve the problems of society
3. Apply the concepts & techniques for the identification of diseases and associated risks and make progress efficiently towards solutions for real world problems
4. Develop the research skills in preparation for a career in the biosciences industry or academic research from Biotechnology and thereby produce recommendations for sustainable development

MTB221: ENZYMOLOGY AND PROTEIN ENGINEERING -Lab

1. Develop practically skills to apply various methods used for protein structure prediction
2. Investigate key experimental processes required to evaluate protein solubility, precipitation and protein degradation.
3. Demonstrate different software used for structure visualization of protein.
4. Understand and observe the expression and purification of proteins

MTB221: BIOPROCESS AND FERMENTATION TECHNOLOGY –Lab

1. Introduction to various culture methods
2. Process operation and control and monitoring of bioprocess at lab scale
3. Calculation of growth rates, yields, Death kinetics etc.

MTB223: BIOPROCESS AND FERMENTATION TECHNOLOGY –Lab

1. Describe the fundamentals of Immunology
2. Demonstrate awareness about principles of immune function
3. Express knowledge of antigen antibody interactions and the use of these interactions in disease diagnosis
4. Explain immunization

MTB230: ENVIRONMENTAL BIOTECHNOLOGY

1. Develop a broad and coherent body of knowledge about environment issues due to municipal and hazardous industrial waste and discuss methods of waste treatment.

2. Gain a detailed understanding of different clean energy resources and biofuels for sustainable environment and use of microbes for application in bioremediation of environment
3. Discuss about cleaner agricultural practices and concept of biofertilizers and biopesticides
4. Explain about toxic effects of environmental pollutants and discuss about statutory requirements/legislations for good environment management and their compliance

MTB231: ENTREPRENEURSHIP DEVELOPMENT IN BIOTECHNOLOGY

1. Understand the principles and functions of management
2. Understand types of organizations, staff appraisal, training and development process
3. Understand the entrepreneurial process ,preparation of business plan
4. Understand the entrepreneurial motivation, traits and development

MTB232: PHARMACEUTICAL TECHNOLOGY & BIOTECHNOLOGY

1. Understand the role of Pharmaceutical technology and biotechnology in the development and validation of different pharmaceutical dosage forms
2. Understanding of Pharmaceutical Dosage Forms & New Drug Delivery Systems
3. Understanding of Biotechnology based Pharmaceutical products.
4. Understanding of pharmaceutical industrial process.

BCS211: COMMUNICATION SKILLS – II

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Recognize the mannerisms and methodology of Interview.

BSS211: Behavioural Science – II (Behavioral Communication and Relationship Management)

1. Demonstrate an understanding of interpersonal skills as part of effective communication processes.
2. Identify the effects of behaviour on interpersonal communication
3. Demonstrate a range of effective interpersonal communication skills
4. Use assertiveness and interpersonal skills in the workplace team
5. Utilise effective communication skills to build strong relationships
6. Develop, implement and promote effective communication techniques

FLT211: FRENCH – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc

FLG211: GERMAN – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLS211: SPANISH – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLC211: CHINESE – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

AND002: Anandam-II

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities

MTB 301: BIOPROCESS PLANT DESIGN

1. To understand the application of chemical engineering principles
2. To understand the unit operation to bioprocess system
3. To understand the principles of disciplines of mechanical, electrical and industrial engineering to design a completely economically optimal process using living or subcomponent of cells

MTB 302: DOWNSTREAM PROCESSING

1. Describe the basic techniques of downstream processing.
2. Demonstrate awareness about Filtration, Dialysis, Electrophoresis, crystallization & drying
3. Express knowledge of Chromatographic techniques of bioseparations
4. Analyze and design the necessary steps for downstream processing of bioproducts

MTB 303: NANOBIO TECHNOLOGY

1. Understand different nanostructured materials.
2. Understand the working principle of the instruments used in characterizing the nanomaterials.
3. Understand the applications and societal implications of nanomaterials.

MTB 304: RECOMBINANT DNA TECHNOLOGY

1. Understand various aspects of recombinant DNA Technology and its applications.
2. Identify key experimental processes required for gene cloning, expression and purification of recombinant proteins.
3. Investigate and explain different vectors and enzymes required in genetic engineering
4. Understand various sequencing methods available for gene sequencing.

MTB 305: GENOMICS AND PROTEOMICS

1. Enhance understanding of the molecular basis of gene structure, expression and regulation in prokaryotes and eukaryotes
2. Integrate skills in solving problems and analyzing data using a molecular and genetic approach
3. Develop theoretical and technical skills required for industrial and scientific application of proteins

MTB 322: DOWNSTREAM PROCESSING LAB

1. Describe the basic techniques of downstream processing.
2. Demonstrate awareness about Filtration, Dialysis, Electrophoresis, crystallization & drying
3. Express knowledge of Chromatographic techniques of bioseparations
4. Analyze and design the necessary steps for downstream processing of bioproducts

MTB 323: NANOBIO TECHNOLOGY LAB

1. Students will be able to understand the physical laws active in the nano-range and as they differ from those in the micro-range.
2. Students will be able to explain the principles and background to nanotechnology.
3. Students will come to understand the principles and characterization techniques.
4. Students can be able to design the different type of nanoparticles, able to characterize with different techniques and use those nanoparticles in different biological applications.

MTB 324: RECOMBINANT DNA TECHNOLOGY LAB

1. Develop practical skills to apply various methods used for DNA isolation
2. Investigate key experimental processes required for gene cloning.
3. Demonstrate different methods of bacterial transformation.
4. Understand and observe the results of gene amplification and restriction digestion.

MTB 325: GENOMICS AND PROTEOMICS LAB

1. Enhance understanding of the molecular basis of gene structure, expression and regulation in prokaryotes and eukaryotes
2. Integrate skills in solving problems and analyzing data using a molecular and genetic approach
3. Develop theoretical and technical skills required for industrial and scientific application of proteins.

MTB 330: ADVANCED FOOD TECHNOLOGY

1. To understand the role and scope of food technology in biotechnology
2. To understand the knowledge and skills in food chemistry, food microbiology
3. To understand the safety, quantitative skills in food technology
4. To understand the engineering and processing, marketing and consumer research in food technology

MTB 331: TISSUE ENGINEERING

1. To understand the design and functional assessment of bioengineered tissue substitutes
2. To understand the Strategies for engineering tissues with a load-bearing function will be of particular focus
3. To understand the Strategies to study cell-surface and cell-cell interactions to physical stimuli
4. To understand the bioreactors, biological scaffolds and 3D cell-tissue constructs will be explored through recent papers

MTB 332: DRUG DISCOVERY & DEVELOPMENT

1. Understand of Drug discovery & development general process
2. Understand of Drug development considerations
3. Understand of Drug Receptor theories in relation to drug development
4. Understanding of Rational Drug Design in Drug discovery and development process

BCS311: COMMUNICATION SKILLS – II

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Recognize the mannerisms and methodology of Interview.

BSS311: Behavioural Science – II (Behavioral Communication and Relationship Management)

1. Demonstrate an understanding of interpersonal skills as part of effective communication processes.
2. Identify the effects of behaviour on interpersonal communication
3. Demonstrate a range of effective interpersonal communication skills
4. Use assertiveness and interpersonal skills in the workplace team
5. Utilise effective communication skills to build strong relationships
6. Develop, implement and promote effective communication techniques

FLT311: FRENCH – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc

FLG311: GERMAN – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLS311: SPANISH – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLC311: CHINESE – II

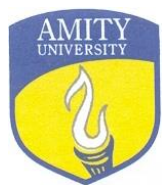
1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

AND003: Anandam-II

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities

MTB 460: PROJECT

1. To carry out the real time research project
2. To understand the research methodology to carry out the research project
3. To understand the research paper publications of research work
4. To understand the project work report writing



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF BIOTECHNOLOGY (AIB)

Master of Science (M.Sc.)

Programme Outcome (PO)

PO1: To be able to analyse problems, formulate a hypothesis, evaluate and validate results; acquire capacity to extrapolate from what one has learned and apply the competencies to solve different kinds of non-familiar problems.

PO2: To acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethics in the subject concerned; identify unethical behaviour, plagiarism and acquire knowledge of plagiarism tools.

PO3: To develop analytical reasoning and to evaluate the reliability and relevance of scientific evidence; acquire logical thinking; analyse and synthesise data from a variety of sources with valid interpretations and conclusions.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF BIOTECHNOLOGY
(AIB)**

Master of Science (Biotechnology)

Programme Code: MSB

Duration – 2 Years Full Time

Programme Structure

Credit Summary Sheet

M. Sc. Biotechnology					
Semester	CC	DE	VA	OE	Total
1	19	3	4	-	26
2	20	3	4	3	30
3	20	3	4	3	30
4	30	-	-	-	30
Total	89	09	12	06	116

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective

Program Specific Outcomes (PSOs)

The objective of the programme is to highlight the role played by biotechnology in modern society and its relevance to sustainable development. It seeks to provide the following:

PSO-I	Apply the theoretical and empirical methods of Biotechnology to questions at the frontier of knowledge for a successful career in Biotechnology and allied industries.
PSO-II	Explain, debate and demonstrate to lay audiences the application of Biotechnology to solve the problems of society.
PSO-III	Build teams that work collaboratively and make progress efficiently towards solutions for real world projects.
PSO-IV	Evaluate and explain the potential impacts, including risks of large scale engineering projects from Biotechnology and thereby produce recommendations for sustainable development.

Program Structure

M. Sc. Biotechnology: I Semester						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MSB101	Biochemistry & Metabolic Regulation	CC	3	-	-	3
MSB102	Advanced Microbiology	CC	3	1	-	4
MSB103	Bioinformatics	CC	3	-	-	3
MSB104	Cell & Molecular Biology	CC	3	-	-	3
MSB121	Biochemistry & Metabolic Regulation Lab	CC	-	-	2	1
MSB122	Advanced Microbiology Lab	CC	-	-	2	1
MSB123	Bioinformatics Lab	CC	-	-	2	1
MSB124	Cell & Molecular Biology Lab	CC	-	-	2	1
AND001	ANANDAM-I	CC	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MSB130	Instrumentation in Biotechnology	DE	3	-	-	3
MSB131	Biosafety, Bioethics & IPR	DE				
MSB132	Industrial Safety & Hazards	DE				
BCS111	Communicational Skills – I	VA	1	-	-	1
BSS111	Behavioural Science I (Self Development and Interpersonal Skills)	VA	1	-	-	1
	Foreign Language – I	VA	2	-	-	2

FLT111	French					
FLG111	German					
FLS111	Spanish					
FLC111	Chinese					
NCVA	-	NC VA	-	-	-	-
	TOTAL					26

M. Sc. Biotechnology: II Semester						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MSB201	Advanced Plant Biotechnology	CC	3	-	-	3
MSB202	Advanced Animal Biotechnology	CC	3	-	-	3
MSB203	Advanced Structural Biology	CC	3	-	-	3
MSB204	Advance Biostatistics and Scientific Writing	CC	3	-	-	3
MSB205	Medical Biotechnology	CC	3	-	-	3
MSB221	Advanced Plant Biotechnology Lab	CC	-	-	2	1
MSB222	Advanced Animal Biotechnology Lab	CC	-	-	2	1
MSB223	Advanced Structural Biology Lab	CC	-	-	2	1
AND002	ANANDAM-II	VA	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MSB230	Environment Biotechnology	DE	3	-	-	3
MSB231	Entrepreneurship development in Biotechnology	DE				
MSB232	Pharmaceutical Technology & Biotechnology	DE				
OE	Open Elective II	OE	3	-	-	3

BCS211	Communicational Skills – II	VA	1	-	-	1
BSS211	Behavioural Science – II (Behavioral Communication and Relationship Management)	VA	1	-	-	1
FLT211	French	VA	2	-	-	2
FLG211	German					
FLS211	Spanish					
FLC211	Chinese					
	TOTAL					30

M. Sc. Biotechnology: III Semester

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MSB301	Bioprocess and Industrial Biotechnology	CC	3	-	-	3
MSB302	Molecular Genetics and Developmental Biology	CC	3	-	-	3
MSB303	Enzyme Technology & Immunology	CC	3	-	-	3
MSB304	Recombinant DNA Technology	CC	3	-	-	3
MSB305	Genomics & Proteomics	CC	2	-	-	2
MSB321	Bioprocess and Industrial Biotechnology Lab	CC	-	-	2	1
MSB323	Enzyme Technology & Immunology Lab	CC	-	-	2	1
MSB324	Recombinant DNA Technology Lab	CC	-	-	2	1
MSB325	Genomics & Proteomics Lab	CC	-	-	2	1
AND003	ANANDAM-III	VA	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MSB330	Advanced Food Technology	DE	3	-	-	3
MSB331	Tissue Engineering	DE				
MSB332	Drug Discovery & Development	DE				
OE	Open Elective III	OE	3	-	-	3

BCS311	Communicational Skills - III	VA	1	-	-	1
BSS311	Behavioral Science III (Leading Through Teams)	VA	1	-	-	1
FLT311	French	VA	2	-	-	2
FLG311	German					
FLS311	Spanish					
FLC311	Chinese					
	TOTAL					30

M. Sc. Biotechnology: IV Semester

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MSB460	Major Project /Dissertation	CC	-	-	-	30
	TOTAL				-	30

COURSE OUTCOMES

AMITY INSTITUTE OF BIOTECHNOLOGY

M. Sc. Biotechnology

MSB101: Biochemistry and Metabolic Regulation

1. Biochemistry majors will be able to demonstrate an understanding of fundamental biochemical principles, such as the structure/function of biomolecules, metabolic pathways, and the regulation of chemical and molecular processes that occur in and between cells.
2. Biochemistry majors will gain proficiency in basic laboratory techniques in both chemistry and biology, and be able to create the scientific method to the processes of experimentation and hypothesis testing.
3. Students in the Biochemistry major will be able to apply and effectively communicate scientific reasoning and data analysis in both written and oral forums.
4. Develop your research skills in preparation for a career in the biosciences industry or academic research.

MSB102: ADVANCED MICROBIOLOGY

1. Describe the structure of bacteria, the nutritional and physical requirements for bacterial growth and explain the dynamics of bacterial growth, evolution of bacteria and molecular taxonomy of bacterial species
2. Demonstrate awareness of the mechanism of genetic transfer and microbial regulation of gene expression
3. Analyse and critically evaluate the host-parasite relationships, the entry of pathogens into the host, host barriers, microbial toxins, plant microbe interactions and microbial pathogenesis.
4. Apply the knowledge of microbial structure and pathogenesis in the prevention of diseases and killing of microorganism using antimicrobial agents and its mode of action.

MSB103: ADVANCED MICROBIOLOGY

1. Investigate about various publicly available biological datasets at various database and will understand the data attributes with information stored in it.
2. Create new projects by applying various tools to correct the existing data interpretation issues by applying computational methods.
3. Apply these data sources and software for investigation of novel biological problems.
4. Develop new protocols and methods for biological discoveries.

MSB104: CELL AND MOLECULAR BIOLOGY

1. Describe the organization of biomembranes, membrane trafficking, cell signalling molecules and explain signal transduction pathways.
2. Demonstrate awareness about different stages of cell division and cell cycle check points.
3. Express knowledge of DNA replication, recombination, repair and mutations.
4. Apply the knowledge of gene expression in biotechnology.

MSB121: Biochemistry And Metabolic Regulation-Lab

1. Biochemistry majors will be able to demonstrate an understanding of fundamental biochemical principles, such as the structure/function of biomolecules, metabolic pathways, and the regulation of chemical and molecular processes that occur in and between cells.
2. Biochemistry majors will gain proficiency in basic laboratory techniques in both chemistry and biology, and be able to create the scientific method to the processes of experimentation and hypothesis testing.
3. Students in the Biochemistry major will be able to apply and effectively communicate scientific reasoning and data analysis in both written and oral forums.
4. Develop your research skills in preparation for a career in the biosciences industry or academic research.

MSB122: ADVANCED MICROBIOLOGY -Lab

1. Describe the structure of bacteria, the nutritional and physical requirements for bacterial growth and explain the dynamics of bacterial growth, evolution of bacteria and molecular taxonomy of bacterial species
2. Demonstrate awareness of the mechanism of genetic transfer and microbial regulation of gene expression
3. Analyse and critically evaluate the host-parasite relationships, the entry of pathogens into the host, host barriers, microbial toxins, plant microbe interactions and microbial pathogenesis.
4. Apply the knowledge of microbial structure and pathogenesis in the prevention of diseases and killing of microorganism using antimicrobial agents and its mode of action.

MSB123: BIOINFORMATICS-Lab

1. Investigate about various publicly available biological datasets at various database and will understand the data attributes with information stored in it.
2. Create new projects by applying various tools to correct the existing data interpretation issues by applying computational methods.
3. Apply these data sources and software for investigation of novel biological problems

4. Develop new protocols and methods for biological discoveries.

MSB124: CELL AND MOLECULAR BIOLOGY-Lab

1. Describe the organization of biomembranes, membrane trafficking, cell signalling molecules and explain signal transduction pathways.
2. Demonstrate awareness about different stages of cell division and cell cycle check points
3. Express knowledge of DNA replication, recombination, repair and mutations.
4. Apply the knowledge of gene expression in biotechnology.

MSB130: INSTRUMENTATION IN BIOTECHNOLOGY

1. To demonstrate an understanding of the theory, proper operation, maintenance and applications of common analytical laboratory instruments, including equipment for centrifugation, electrophoresis, spectrophotometry, and chromatography.
2. To demonstrate qualitative and quantitative analytical skills with various instruments using common biotechnology laboratory protocols.
3. Students will develop critical thinking skills relevant to biotechnology by performing experiment and relevant data analysis, troubleshooting of experiments and equipment and become familiar with safe laboratory practices, able to identify unsafe conditions and taking corrective action, learning proper handling and disposal techniques for hazardous materials.
4. Students will begin to gain laboratory independence by cleaning and preparing items for the lab and preparing biological and/or chemical materials, as well as other items used in experiments.

MSB131: BIOSAFETY, BIOETHICS & IPR

1. Investigate the matter that the particular subject matter comes in the ambit of copyright/patent or not and we can get the right into this regard or not.
2. Create his mind that what is innovation and what are the inventive step and industrial use of subject matter that could be patentable.
3. Apply for patent/copyright before the appropriate authority
4. Develop your knowledge regarding infringement of your right. Students will come to know that what the act is amount to infringement and what are the remedies available against such infringement.

MSB132: INDUSTRIAL SAFETY AND HAZARDS

1. Investigate different types of hazards and prevention methods.
2. Create plant layout as per site selection based on safety measures and industrial hygiene.
3. Apply prevention methods to control occupational diseases.

4. Develop a framework for management according to philosophy and need for Industrial safety keeping in view of various applicable laws and suggest Government for implementation.

BCS111: Communication Skills -I

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Apply their acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the power of Words.

BSS111: Behavioural Science I (Self Development and Interpersonal Skills)

1. Develop your understanding of who you are; what your core purpose is, what your values are and what limits your success
2. Manage your emotions and feelings more effectively to have the impact that you need
3. Develop the way that you regulate and control your emotions
4. Learn about your behavioral preferences to become more self-awareness

FLT111: FRENCH – I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language.
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLG111: GERMAN – I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLS111: SPANISH – I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLC111: CHINESE – I

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

AND001: Anandam-I

1. Awareness and empathy regarding community issues.
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

MSB201: ADVANCE PLANT BIOTECHNOLOGY

1. Aware of the in vitro plant propagation.
2. Able to identify and solve problems related to suspension culture and production of secondary metabolites.
3. Able to understand genetic engineering and its applications in various sectors.

MSB202: ADVANCED ANIMAL BIOTECHNOLOGY

1. Develop a practical approach of the basic concepts of cell culture and investigate the newer applications of cell culture.
2. Develop the principles and applications of hybridoma technology, IVF-ET, animal cloning and vaccine development.

3. Apply the concepts & techniques for the applications of transgenic animals with reference to animal models and discuss the public and ethical concerns over the use of animal biotechnology.
4. Develop the research skills in preparation for a career in the biosciences industry or academic research.

MSB203: ADVANCED STRUCTURAL BIOLOGY

1. Understand various aspects of protein structure and function including protein folding, degradation, molecular interactions and recognition.
2. Understand key experimental processes required to evaluate protein structure, function and knowledge of how to apply them to solve specific biochemical problems.
3. Understand and explain enzyme mechanisms in a structural context and to describe mechanisms of protein folding and concept of molten globule
4. Understand the evolution of protein structural motifs and domains and associate this with function

MSB204: ADVANCE BIOSTATISTICS AND SCIENTIFIC WRITING

1. Understand the role of Research methodology and scientific writing in biotechnology, nanotechnology and environmental sciences.
2. Understanding the basics of research methodologies for carrying out research work
3. Understanding of the components of scientific writing of the research and review papers
4. Understanding of the relevant selection of the journals for communication of the manuscripts

MSB205: MEDICAL BIOTECHNOLOGY

1. Develop the theoretical and empirical concepts of disease diagnosis for a successful career in Biotechnology and allied industries.
2. Demonstrate the principles and applications of diseases therapy to solve the problems of society
3. Apply the concepts & techniques for the identification of diseases and associated risks and make progress efficiently towards solutions for real world problems
4. Develop the research skills in preparation for a career in the biosciences industry or academic research from Biotechnology and thereby produce recommendations for sustainable development

MSB221: ADVANCE PLANT BIOTECHNOLOGY -Lab

1. Able to do wet lab experiments related to in vitro cultures, micropropagation and seed viability.
2. Able to record observations and analyze results.

3. Able to write results.

MSB222: ADVANCED ANIMAL BIOTECHNOLOGY -Lab

1. Able to do wet lab experiments related to in vitro cultures, micropropagation and seed viability.
2. Able to record observations and analyze results.
3. Able to write results.

MSB223: ADVANCED STRUCTURAL BIOLOGY LAB

1. Develop practically skills to apply various methods used for crystallization of proteins
2. Investigate key experimental processes required to evaluate protein solubility, precipitation and protein degradation
3. Demonstrate different software used for structure visualization of protein.
4. Understand and observe the interactions between the protein and its substrate of its inhibitor.

MSB230: ENVIRONMENTAL BIOTECHNOLOGY

1. Develop a broad and coherent body of knowledge about environment issues due to municipal and hazardous industrial waste and discuss methods of waste treatment.
2. Gain a detailed understanding of different clean energy resources and biofuels for sustainable environment and use of microbes for application in bioremediation of environment
3. Discuss about cleaner agricultural practices and concept of biofertilizers and biopesticides
4. Explain about toxic effects of environmental pollutants and discuss about statutory requirements/legislations for good environment management and their compliance

MSB231: ENTREPRENEURSHIP DEVELOPMENT IN BIOTECHNOLOGY

1. Understand the principles and functions of management
2. Understand types of organizations, staff appraisal, training and development process
3. Understand the entrepreneurial process ,preparation of business plan
4. Understand the entrepreneurial motivation, traits and development

MSB232: PHARMACEUTICAL TECHNOLOGY & BIOTECHNOLOGY

1. Understand the role of Pharmaceutical technology and biotechnology in the development and validation of different pharmaceutical dosage forms
2. Understanding of Pharmaceutical Dosage Forms & New Drug Delivery Systems
3. Understanding of Biotechnology based Pharmaceutical products.

4. Understanding of pharmaceutical industrial process.

BCS211: COMMUNICATION SKILLS – II

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Recognize the mannerisms and methodology of Interview.

BSS211: Behavioural Science – II (Behavioral Communication and Relationship Management)

1. Demonstrate an understanding of interpersonal skills as part of effective communication processes.
2. Identify the effects of behaviour on interpersonal communication
3. Demonstrate a range of effective interpersonal communication skills
4. Use assertiveness and interpersonal skills in the workplace team
5. Utilise effective communication skills to build strong relationships
6. Develop, implement and promote effective communication techniques

FLT211: FRENCH – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc

FLG211: GERMAN – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLS211: SPANISH – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts

3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLC211: CHINESE – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

AND002: Anandam-II

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities

MSB 301: BIOPROCESS AND INDUSTRIAL BIOTECHNOLOGY

1. Aware of the bioenergetics and metabolic pathways
2. Able to identify and solve problems related to biochemical engineering
3. Able to understand cell engineering and its applications in various sectors.

MSB 302: Molecular Genetics and Developmental Biology

1. Understand the principles of Genetics, genetic disorders and their diagnosis.
2. Acquaint with principles, technical requirements, scientific and commercial applications in Genetics in developmental biology
3. Support methodologies in genetics, as well as DNA handling with PCR- based detection and diagnostic tools.

MSB 303: ENZYME TECHNOLOGY AND IMMUNOTECHNOLOGY

1. Understand different types of cells of the immune system, nature and structure of antibody and antigen
2. Understand the process of transplantation, and the immunological techniques
3. Aware of the bioenergetics and metabolic pathways
4. Able to identify and solve problems related to biochemical engineering
5. Able to understand cell engineering and its applications in various sectors.

MSB 304: RECOMBINANT DNA TECHNOLOGY

1. Understand various aspects of recombinant DNA Technology and its applications
2. Identify key experimental processes required for gene cloning, expression and purification of recombinant proteins.
3. Investigate and explain different vectors and enzymes required in genetic engineering.
4. Understand various sequencing methods available for gene sequencing.

MSB 305: GENOMICS AND PROTEOMICS

1. Enhance understanding of the molecular basis of gene structure, expression and regulation in prokaryotes and eukaryotes
2. Integrate skills in solving problems and analyzing data using a molecular and genetic approach
3. Develop theoretical and technical skills required for industrial and scientific application of proteins

MSB 321: BIOPROCESS AND INDUSTRIAL BIOTECHNOLOGY LAB

1. Aware of the bioenergetics and metabolic pathways
2. Able to identify and solve problems related to biochemical engineering
3. Able to understand cell engineering and its applications in various sectors.

MSB 323: ENZYME TECHNOLOGY AND IMMUNOTECHNOLOGY LAB

1. Understand different types of cells of the immune system, nature and structure of antibody and antigen
2. Understand the process of transplantation, and the immunological techniques
3. Aware of the bioenergetics and metabolic pathways
4. Able to identify and solve problems related to biochemical engineering

MSB 324: RECOMBINANT DNA TECHNOLOGY LAB

1. Develop practically skills to apply various methods used for DNA isolation.
2. Investigate key experimental processes required for gene cloning
3. Demonstrate different methods of bacterial transformation
4. Understand and observe the results of gene amplification and restriction digestion

MSB 325: GENOMICS AND PROTEOMICS LAB

1. Enhance understanding of the molecular basis of gene structure, expression and regulation in prokaryotes and eukaryotes
2. Integrate skills in solving problems and analyzing data using a molecular and genetic approach

3. Develop theoretical and technical skills required for industrial and scientific application of proteins.

MSB 330: ADVANCED FOOD TECHNOLOGY

1. To understand the role and scope of food technology in biotechnology
2. To understand the knowledge and skills in food chemistry, food microbiology
3. To understand the safety, quantitative skills in food technology
4. To understand the engineering and processing, marketing and consumer research in food technology

MSB 331: TISSUE ENGINEERING

1. To understand the design and functional assessment of bioengineered tissue substitutes
2. To understand the Strategies for engineering tissues with a load-bearing function will be of particular focus
3. To understand the Strategies to study cell-surface and cell-cell interactions to physical stimuli
4. To understand the bioreactors, biological scaffolds and 3D cell-tissue constructs will be explored through recent papers

MSB 332: DRUG DISCOVERY & DEVELOPMENT

1. Understand of Drug discovery & development general process
2. Understand of Drug development considerations
3. Understand of Drug Receptor theories in relation to drug development
4. Understanding of Rational Drug Design in Drug discovery and development process

BCS311: COMMUNICATION SKILLS – II

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Recognize the mannerisms and methodology of Interview.

BSS311: Behavioural Science – II (Behavioral Communication and Relationship Management)

1. Demonstrate an understanding of interpersonal skills as part of effective communication processes.
2. Identify the effects of behaviour on interpersonal communication

3. Demonstrate a range of effective interpersonal communication skills
4. Use assertiveness and interpersonal skills in the workplace team
5. Utilise effective communication skills to build strong relationships
6. Develop, implement and promote effective communication techniques

FLT311: FRENCH – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc

FLG311: GERMAN – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.

FLS311: SPANISH – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.

FLC311: CHINESE – II

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.

AND003: Anandam-II

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities

MSB 460: PROJECT

1. To carry out the real time research project
2. To understand the research methodology to carry out the research project
3. To understand the research paper publications of research work
4. To understand the project work report writing



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF BIOTECHNOLOGY
(AIB)**

Master of Science

(Food Technology)

Programme Code: MSD

Duration – 2 Years Full Time

Programme Structure

Credit Summary Sheet

M. Sc. Food Technology					
Semester	CC	DE	VA	OE	Total
1	17	3	4	-	26
2	18	3	4	3	30
3	18	3	4	3	30
4	30	-	-	-	30
Total	84	09	12	09	116

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective

Program Specific Outcomes (PSOs)

1. After completion of M.Sc. program, students will be having knowledge and skills of the technological and science base for the production, processing and preservation of foods.
2. Students will be able to elaborate methods to modify and control food quality and safety by means of chemical, microbiological and sensory analysis techniques.
3. Students will be capable to provide high-level research-based solution to food security problems by manipulating the Farm to fork multi-disciplinary approach.
4. Students will be able to choose and design technologies for the industrial manufacture of food products, with due regard to raw materials, energy, economics and sustainability in the system of industrial food technology and nutrition.

Program Structure

M. Sc. Food Technology: I Semester						
Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MSD101	Advance Fermentation Technology	CC	3	0	-	3
MSD102	Advance Food Chemistry and Nutrition	CC	3	-	-	3
MSD103	Instrumental Methods of Food Analysis	CC	3	1	-	4
MSD104	Advance Food Processing and Preservation Technology	CC	3	1	-	4
MSD121	Advance Fermentation Technology (Lab)	CC	-	-	2	1
MSD122	Advance Food Chemistry and Nutrition (Lab)	CC	-	-	2	1
MSD123	Instrumental Methods of Food Analysis (Lab)	CC	-	-	2	1
AND001	ANANDAM I	CC	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MSD130	Cold Chain Management	DE	3	-	-	3
MSD131	IPR & Food regulatory affairs	DE				
MSD132	Industrial Safety & Hazards	DE				
BCS 111	Communicational Skills – I	VA	1	-	-	1
BSS111	Self-Development and Interpersonal Skills – I	VA	1	-	-	1
FLT 111 FLG 111 FLS 111 FLC 111	Foreign Language – I French German Spanish Chinese	VA	2	-	-	2
	TOTAL					26

M. Sc. Food Technology: II Semester

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MSD201	Meat, Fish and Poultry processing Technology	CC	3	1	-	4
MSD202	Advance Cereal Processing	CC	3	-	-	3
MSD203	Functional Foods and Nutraceuticals	CC	3	-	-	3
MSD204	Advance Biostatistics for Food Technologists	CC	3	-	-	3
MSD205	Advance Food Engineering	CC	3	-	-	3
MSD221	Meat, Fish and Poultry processing Technology Lab	CC	-	-	2	1
MSD222	Advance Cereal Processing Lab	CC	-	-	2	1
AND002	ANANDAM II	CC	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MSD230	Advance Flavor Chemistry and Technology	DE	3	-	-	3
MSD231	Food Rheology and texture	DE				
MSD232	Advance Nanotechnology and its Applications in Food Industry	DE				
MSD233	Research Methodology and Scientific Writing	DE				
OE	Open Elective –I		3	-	-	3
BCS 211	Communicational Skills - II	VA	1	-	-	1
BSS211	Self-Development and Interpersonal Skills - II	VA	1	-	-	1
FLT 211 FLG 211 FLS 211 FLC 211	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
	TOTAL					30

Note: After completion of the End Term Examination the students must compulsorily undergo Industrial Training of 6 weeks. The evaluation of this training would be carried out in III sem.

M. Sc. Food Technology: III Semester

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MSD301	Processing of Foods of Plant Origin	CC	3	1	-	4
MSD302	Novel Food Packaging Technology	CC	2	-	-	2
MSD303	Food Safety and Quality Management	CC	3	-	-	3
MSD304	Advance Dairy Technology	CC	3	1	-	4
MSD305	Industrial training report	CC	-	-	-	2
MSD321	Processing of Foods of Plant Origin Lab	CC	-	-	2	1
MSD322	Novel Food Packaging Lab	CC	-	-	2	1
MSD 333	Advance Dairy Technology Lab	CC	-	-	2	1
AND003	ANANDAM III	CC	-	-	-	2
DE Electives: Student has to select 1 course from the list of following DE electives						
MSD330	Food Business Management	DE	3	-	-	3
MSD331	Food Toxicology	DE				
MSD332	Process Equipment Design and Plant Layouts	DE				
OE	Open Elective-II	OE	3	-	-	3
BCS 311	Communicational Skills - III	VA	1	-	-	1
BSS311	Self-Development and Interpersonal Skills - III	VA	1	-	-	1
FLT 311 FLG 311 FLS 311 FLC 311	Foreign Language – III French German Spanish Chinese	VA	2	-	-	2
	TOTAL					30

M. Sc. Food Technology: IV Semester

Course Code	Course Title	Category	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Credits
MSD460	Major Project /Dissertation	CC	-	-	-	30
	TOTAL					30

COURSE OUTCOMES

AMITY INSTITUTE OF BIOTECHNOLOGY

M. Sc. Food Technology

MSD101- Advance Fermentation Technology

1. Introduction to various culture methods
2. Understanding of fermenter designs
3. Process operation and control and monitoring at industrial level

MSD102- Advance Food Chemistry and Nutrition

1. Get knowledge about chemical processes in food.
2. Understand various constituents in foods.
3. Understand role of water as solvent in food systems.
4. Understand various facts about nutrition

MSD103- Instrumental Methods of Food Analysis

1. Explain general principals and scope of food analysis instruments
2. Illustrate clear concepts on working principles of analytical instruments
3. Demonstrate critical analytical and lab skills in food analysis
4. Evaluate sample preparation techniques for different food applications

MSD104- Advance in Food Processing and Preservation

1. Gives idea about how food process in industry
2. Learn the various techniques used food industry
3. Understand the concept of working equipment's used in food industries

MSD121- Advance Fermentation Technology (Lab)

1. Introduction to various culture methods
2. Understanding of fermenter designs
3. Process operation and control and monitoring at industrial level.

MSD122- Advance Food Chemistry and Nutrition (Lab)

1. Get knowledge about chemical processes in food
2. Understand various constituents in foods
3. Understand role of water as solvent in food systems.

MSD123- Advance Food Chemistry and Nutrition (Lab)

1. Understanding the basic principle of analytical instruments
2. Learning the precautions to be taken while operating the instruments
3. Demonstrate critical analytical and lab skills in food analysis

AND001- Aanandam

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

MSD130- Cold Chain Management

1. Develop a sound understanding of the important role of cold chain management in today's business environment
2. Become familiar with current cold chain management trends and apply the current supply chain theories, practices and concepts utilizing case problems and problem-based learning situations
3. Demonstrate the use of effective written and oral communications, critical thinking, team building and presentation skills as applied to business problems

MSD131- IPR & Drug Regulatory Affairs

1. Investigate the matter that the subject matter comes in the ambit of copyright/patent or not and we can get the right into this regard or not.
2. Create his mind that what is innovation and what are the inventive step and industrial use of subject matter that could be patentable
3. Apply for patent/copyright before the appropriate authority
4. Develop your knowledge regarding infringement of your right. Students will come to know that what the act is amount to infringement and what are the remedies available against such infringement.

MSD132- Industrial Safety and Hazards

1. Investigate different types of hazards and prevention methods
2. Create plant layout as per site selection based on safety measures and industrial hygiene
3. Apply prevention methods to control occupational diseases.
4. Develop a framework for management according to philosophy and need for Industrial safety keeping in view of various applicable laws and suggest Government for implementation.

BCS111- Communication Skills – I

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Apply their acquired knowledge with the appropriate selection of channel of formal communication.
4. Develop and empower self with the power of Words.
5. Enhance their technical writing capabilities while also learning about do's and don'ts of technical drafting.

BSS111- Behavioural Science – I

1. Develop your understanding of who you are; what your core purpose is, what your values are and what limits your success
2. Manage your emotions and feelings more effectively to have the impact that you need
3. Develop the way that you regulate and control your emotions
4. Learn about your behavioral preferences to become more self-awareness
5. Develop and build your emotional intelligence

MSD001- Community Nutrition

1. The students will be able to describe the major causes and impact of communicable
2. and non-communicable diseases and their pathology
3. The students will be able to understand the concept of Nutrition Security and get
4. familiarized with the various approaches and strategies for combating malnutrition.
5. The students will be able to identify and monitor malnutrition and hunger in
6. individuals and communities, using clinical, dietary, anthropometric and biochemical measures.
7. The student will be able to assess, monitor and evaluate the impact of public health
8. programs.

FLT101/111- French

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

FLG 101/111- German

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

FLS 101/111- Spanish

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

FLC 101/111- Chinese

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

MSD201- Meat, Fish and Poultry Processing Technology

1. Explain general principals and scope of meat processing and preservation
2. Illustrate clear concepts of hygiene and safe practices used in meat industry
3. Demonstrate the role of food technologists in maintaining the meat quality
4. Understand the techniques used in meat processing and preservation

MSD202- Technology of Cereal, Pulses and Oilseeds

1. Understand the basic composition and structural parts of food grains.
2. Aware the importance of physico-chemical properties of food grains.
3. Understand the basics of milling operations for food grains.
4. Identify the problems associated with milling of grains and their solution.

MSD203- Functional Foods and Nutraceuticals

1. The student will be able to recognize the structures of the major bioactive food constituents that are being incorporated into functional foods. Know their sources, solubility properties, stabilities, and how they are absorbed and metabolized.
2. The student will be able to recognize functional food products that are nutritionally logical, technically feasible, and that also follow regulatory guidelines.
3. The student will be able to identify the differences between a dietary supplement and a functional food/nutraceutical and the labeling/marketing around these substances.

MSD204- Advanced Biostatistics For Food Technologists

1. To understand elementary mathematical statistics including deriving simple results and solving problems.
2. To develop various concepts and techniques of statistics useful in business.
3. To develop the ability to analyze a problem, apply the appropriate statistical techniques for problem solving and interpret the results.
4. To solve simple data-analytic problems by hand and also use computers for analyzing problems involving large datasets with the help of statistical software.

MSD205- Advance Food Engineering

1. To illustrate various aspects of food engineering.
2. To develop understanding about fluid flow and its applications.
3. To understand mechanism of heat transfer in food processing
4. To explain method of freezing process.

MSD221- Meat, Fish and Poultry Processing Technology (Lab)

1. Understand the basic concept meat processing and explain role of livestock in Indian food industry
2. Explain the different techniques used in processing of meat products
3. Have knowledge of different analytical techniques used in food industry and laboratories for analytical purpose.

MSD222- Advance Cereal Processing (Lab)

1. Understand the basic composition and structural parts of food grains.
2. Aware the importance of physico-chemical properties of food grains.
3. Understand the basics of milling operations for food grains
4. Identify the problems associated with milling of grains and their solution.
5. Know processing food grains into value added products.

AND002- Aanandam

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

MSD230- Advance Flavor Chemistry and Technology

1. Understand the basics about essential oils, condiments, and spices.
2. Importance flavouring compounds in food industry.
3. Understand the basics of isolation and extraction of flavouring compounds.
4. Identify the legal consideration associated flavouring compounds.

MSD231- Food Rheology and Texture

1. To provide theoretical and practical knowledge on rheology, colorimetry, calorimetry and food microstructure in order to supply the capability for right control procedures, during formulation, processing and preservation of liquid and solid foods.
2. acquisition and application of food science and technology knowledge on the food's physical and structural properties
3. Understanding The role of rheology in food quality control and new product development

MSD232- Advance Nanotechnology and its Applications in Food Industry

1. Students are expected to understand the basic concepts, investigation tools, and fundamental issues of nanotechnology.
2. To understand self-assembly, scanning probe microscopy, organic/inorganic nanocomposites, DNA and protein chips.
3. To apply the nanotechnological approach in food safety and quality management

MSD233- Research Methodology and Scientific Writing

1. Understand the role of Research methodology and scientific writing in
2. biotechnology, nanotechnology, and environmental sciences.
3. Understanding the basics of research methodologies for carrying out research work.
4. Understanding of the components of scientific writing of the research and review
5. papers.
6. Understanding of the relevant selection of the journals for communication of the manuscripts.

BCS211- Communication Skills - II

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Recognize the mannerisms and methodology of Interview

BSS211- Behavioural Science – II

1. Demonstrate an understanding of interpersonal skills as part of effective communication processes.
2. Identify the effects of behaviour on interpersonal communication
3. Demonstrate a range of effective interpersonal communication skills
4. Use assertiveness and interpersonal skills in the workplace team
5. Utilise effective communication skills to build strong relationships
6. Develop, implement and promote effective communication techniques.

FLT201/211- French

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

FLG201/211- German

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

FLG201/211- German

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

FLC201/211- Chinese

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts
3. Students will be able to communicate in small sentences in writing, self-introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self-introduction, family description etc.

MSD301- Processing of Foods of Plant Origin

1. Get knowledge about post- harvest handling operations.
2. Understand various processing and preservation techniques used in food.
3. Get knowledge about processed fruit and vegetable products.
4. Understand various facts Food additives.

MSD302- Novel Food Packaging Technology

1. Explain various physical and chemical properties of packaging materials and their manufacturing process, through in-class discussions, electronic simulations and exam questions.
2. Communicate clearly about different type of packaging material and their functions, through independent written assignments and exam questions.
3. Appreciate the contributions of packaging material in increasing the shelf life of food products, through clicker questions, class discussion and exam questions.

MSD303- Food Safety and Quality Management

1. Understanding Food safety and quality parameter and management.
2. Develop in depth knowledge of food safety standards and quality management in food system
3. Knowledge of Indian and global food safety scenario

MSD304- Advance Dairy Technology

1. Describe the physical and chemical properties of milk and milk products
2. Describe the different treatments of milk such heating, homogenization, centrifugation, agitation filtration, concentration, and fermentation
3. Prepare/manufacture different dairy products such as cream, butter, ghee, yoghurt,
4. cultured milk, ice cream and cheese using simple and industrial techniques

MSD305- Industrial Training Evaluation

1. To gain practical knowledge of industrial protocols and processes
2. To learn the in-plant managements of industrial activities.
3. To learn report writing and result presentation

MSD321- Processing of Foods of Plant Origin (Lab)

1. Get knowledge about post- harvest handling operations.
2. Understand various processing and preservation techniques used in food.
3. Get knowledge about processed fruit and vegetable products.

MSD322- Novel Food Packaging (Lab)

1. Explain various physical and chemical properties of packaging materials
2. Communicate clearly about different type of packaging material and their functions,

3. Appreciate the contributions of packaging material in increasing the shelf life of food products

MSD323- Advance Dairy Technology (Lab)

1. Acquaintance with knowledge on processing of milk in variety of milk products and to understand the chemistry of milk and milk products.
2. Knowledge about the preservation of milk through high temperature treatment.
3. Hands on proximate analysis of milk and milk products.

MSD330- Food Business Management

1. Demonstrate knowledge of the laws that relate to the use of materials in foods and the operation of food plants and the federal, state and local level
2. Identify and apply the principles of food plant operation and management
3. Manage operations and resources in a food processing plant

AND003- Aanandam

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

MSD331- Food Toxicology

1. Regarding the most important contaminants in food, toxicology of various food additives and contaminants and their sources.
2. Explain what food safety involves and which contaminants are of relevance.
3. Explain risk analysis, assessment and management related to food safety and which organizations are involved in these processes nationally and internationally.

BCS311- Communication – III

1. Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
2. Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
3. Recognize the mannerisms and methodology of Interview.

BSS311- Behavioural Science – III

1. Describe team design features and the difference between team and group, and components of the concept.
2. Identify the patterns of interaction in a team, method of studying attractions and repulsions in groups sociometry and construction of socio-gram for studying interpersonal relations in a Team.
3. Analyze various stages of team growth, team performance curve profiling a team: Role of leadership in managing team.
4. Differentiate between management values, pragmatic spirituality in life and organization building global teams through universal human values.
5. Demonstrate the leaning of teams, leadership and values, pragmatic spirituality in life and organization building global teams.

MSD460- Major Project/Dissertation

1. Experience in conducting independent project work
2. Articulation of project and research methodology for identified problem
3. Report writing and presentation.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF MICROBIAL TECHNOLOGY (AIMT)

Bachelor of Science (B.Sc.)

Programme Outcome (PO)

PO1: To identify, formulate and analyse complex problems, and to reach substantial conclusions using principles of sciences.

PO2: To apply various statistical tools to research problems and to develop the ability to build statistical knowledge.

PO3: To develop scientific intuition, ability and techniques to tackle problems, either theoretical or experimental in nature.

PO4: To inculcate scientific thinking, awareness and ability to use necessary current techniques, skills and modern tools.

PO5: To understand the impact of scientific solutions on societal and environmental contexts and to demonstrate knowledge of and need for sustainable development.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF MICROBIAL TECHNOLOGY
(AIMT)**

B.Sc. (Hons.) MICROBIOLOGY

Programme Code: BSM

12892

Duration – 3 Years Full Time

(Programme Structure)

Credits Summary

B.Sc. (Hons.) Microbiology							
(03 Years/ 06 Semesters)							
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Minor Track (MT)	Non-Teaching Credit Courses (NTCC)	Anandam	Total
I	16	-	4	-	0	2	22
II	19	-	4	3	0	2	28
III	15	3	4	3	3	2	30
IV	14	3	4	3	0	2	26
V	13	3	4	3	3	2	28
VI	25	-	-	-	1	0	26
Total	102	9	20	12	7	10	160

Total Credits (22+28+30+26+28+26) = 160

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non -Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

- Define and explain various microbiology disciplines of the core theories to be applicable in industries and research.
- Describe and demonstrate the microbial cell functioning for their replication, survival and interaction with environment and host.
- Explain the theoretical and practical basis of the tools and techniques common to microbiology.
- Evaluate and respond to given challenges using microbiological skills.

PROGRAMME STRUCTURE

AMITY INSTITUTE OF MICROBIAL TECHNOLOGY (AIMT)

B.Sc. (Hons.) MICROBIOLOGY

FIRST SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BSM 101	Introduction of Microbiology	CC	3	-	-	3
BSM 102	Life Sciences- I	CC	3	-	-	3
BSM 103	Chemistry- I	CC	3	-	-	3
BSM 104	Biochemistry & Biophysics	CC	3	-	-	3
BSM 122	Life Sciences- I Lab.	CC	-	-	4	2
BSM 123	Chemistry- I Lab.	CC	-	-	4	2
BCS 101	English – I	VA	1	-	-	1
BSS 103	(Behavioural Sciences-I) Understanding Self for Effectiveness	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language – I French German Spanish Chinese	VA	2	-	-	2
AND 001	Anandam– I	NTCC	-	-	-	2
TOTAL						22

SECOND SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BSM 201	Bacteriology & Virology	CC	3	1	-	4
BSM 202	Mycology & Phycology	CC	3	-	-	3
BSM 203	Life Sciences- II	CC	3	-	-	3
BSM 204	Chemistry- II	CC	3	-	-	3
BSM 221	Bacteriology & Virology Lab	CC	-	-	4	2
BSM 222	Mycology & Phycology Lab.	CC	-	-	4	2
BSM 224	Chemistry- II Lab.	CC	-	-	4	2
Minor Track-I		MT	3	-	-	3
BCS 201	English – II	VA	1	-	-	1
BSS 203	Behavioural Science-II (Problem Solving and Creative Thinking)	VA	1	-	-	1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
AND 002	Anandam--II	NTCC	-	-	-	2
TOTAL						28

Note: -Term Paper/ Case Study topic distribution before summer vacations and will be evaluated in Third Semester.

THIRD SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BSM 301	Microbial Physiology & Metabolism	CC	3	-	-	3
BSM 302	Molecular Biology & RDT	CC	3	1	-	4
EVS 003	Environmental Sciences	CC	3	1	-	4
BSM 321	Biochemistry & Microbial Physiology Lab.	CC	-	-	4	2
BSM 322	Molecular Biology & RDT Lab.	CC	-	-	4	2
Domain Elective-I : Choose any one from the following courses						
BSM 311	Bionanotechnology & Biosensors	DE	3	-	-	3
BSM 312	Soil Microbiology					
BSM 313	Food Biotechnology					
BSM 314	Cell Biology					
Minor Track- II		MT				3
BSM 330	Term Paper Evaluation	NTCC	-	-	-	3
BCS 301	Communication Skills – I	VA	-	-	-	1
BSS 303	Behavioural Science-III (Interpersonal Communication & Relationship Management)	VA	-	-	-	1
FLT 301 FLG 301 FLS 301 FLC 301	Foreign Language – III French German Spanish Chinese	VA	-	-	-	2
AND003	Anandam-III	NTCC	-	-	-	2
TOTAL						30

FOURTH SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BSM 401	Immunology	CC	3	1	-	4
BSM 402	Fermentation Technology & Industrial Microbiology	CC	3	-	-	3
BSM 403	Medical Microbiology	CC	3	-	-	3
BSM 421	Immunology & Medical Microbiology Lab.	CC	-	-	4	2
BSM 422	Fermentation Technology & Industrial Microbiology Lab.	CC	-	-	4	2
Domain Elective-II: Choose any one from the following courses						
BSM 411	Bioinformatics	DE	3	-	-	3
BSM 412	Pharmaceutical Technology & Microbiology					
BSM 413	Biomaterial Science					
BSM 414	Inheritance Biology					
Minor Track- III		MT				3
BCS 401	Communication Skills – II	VA	-	-	-	1
BSS 403	Behavioural Science-IV (Group Dynamics and Team Building)	VA	-	-	-	1
FLT 401 FLG 401 FLS 401 FLC 401	Foreign Language – IV French German Spanish Chinese	VA	-	-	-	2
AND 004	Anandam-IV	NTCC	-	-	-	2
TOTAL						26

Note: - Students will be required to undergo summer training of 45 days in industry/ research institution/ academic institution. Work progress will be evaluated in V semester.

FIFTH SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BSM 501	Microbial Ecology & Diversity	CC	3	-	-	3
BSM 502	Microbial Genetics & Genomics	CC	3	-	-	3
BSM 503	Plant Pathology	CC	3	-	-	3
BSM 521	Microbial Ecology & Plant Pathology Lab.	CC	-	-	4	2
BSM 522	Microbial Genetics & Genomics Lab.	CC	-	-	4	2
Domain Elective-III: Choose any one from the following courses						
BSM 511	Industrial Safety & Management	DE	3	-	-	3
BSM 512	IPR & Bioethics					
BSM 513	GMP & Microbial Quality Control					
BSM 514	Clinical Research & Pharmacovigilance					
Minor Track- IV		MT				3
BSM 550	Summer Training Evaluation	NTCC	-	-	-	3
BCS 501	Communication Skills – III	VA	-	-	-	1
BSS 503	Behavioural Science-V (Individual, Society and Nation)	VA	-	-	-	1
FLT 501 FLG 501 FLS 501 FLC 501	Foreign Language – V French German Spanish Chinese	VA	-	-	-	2
AND 005	Anandam-V	NTCC	-	-	-	2
TOTAL						28

SIXTH SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
BSM 601	Bioanalytical Techniques & Statistics	CC	3	-	-	3
BSM 602	Food & Dairy Microbiology	CC	3	-	-	3
BSM 603	Marine Microbiology	CC	3	-	-	3
BSM 650	Educational/ Industrial Tour	NTCC	-	-	-	1
BSM 660	In House Project	CC	-	-	-	16
TOTAL						26

One Industrial /Educational Tour can be organized in any Semester of Program and report evaluated will be in Semester VI

Total Credits (22+28+30+26+28+26) = 160

COURSE OUTCOMES

AMITY INSTITUTE OF MICROBIAL TECHNOLOGY (AIMT)

B.Sc. (Hons.) MICROBIOLOGY

BSM (101) Introduction of Microbiology

- CO 1 Introduction and historical information about Microorganisms.
- CO 2 Develop theoretical skills to handle microbes and their maintenance.

BSM (102) Life Sciences-I

- CO 1 Introduction and characteristics of Bryophytes, Pteridophytes, Gymnosperms and Angiosperms.
- CO 2 Explain plant anatomy, physiology & embryology.
- CO 3 Define various ecological interactions.

BSM (103) Chemistry-I

- CO 1 Understand quantum chemistry and their models for structure of atoms.
- CO 2 Periodic properties of various elements.
- CO 3 Various types of bond and calculation of their lattice energy, bonding energy, ionic character in bond.
- CO 4 Thermodynamics of chemical reactions and calculation of work, heat and enthalpy.
- CO 5 Calculation of entropy change and free energy change of various processes.
- CO 6 Ionization and calculation of solubility product.

BSM (104) Biochemistry & Biophysics

- CO 1 Explain structure and function of bio-molecules.
- CO 2 Explain biophysics principals and its application for the study of bio-molecules

BSM (122) Life Sciences-I Lab

- CO 1 To understand the role of plants physiology in life sciences
- CO 2 To study the plant cell morphology using microscopy
- CO 3 To study plant cell structures

BSM (123) Chemistry-I Lab.

- CO 1 To understand the chemical reactions and mechanisms
- CO 2 To study the experimental setup for analysis
- CO 3 To understand the underlying calculations involved in chemical analysis

BCS (101) English – I

- CO 1 Identify essentials components of basic English language
- CO 2 Analyse varied tools to improve vocabulary and learn them
- CO 3 Interpret varied nuances of communication skills
- CO 4 Acquire mastery over grammatical aspects so as to use error free language
- CO 5 Explore and use English as medium of communication in real life situation

BSS (103) (Behavioural Sciences-I) Understanding Self for Effectiveness

- CO 1 Understanding self & process of self-exploration
- CO 2 Learning strategies for development of a healthy self esteem
- CO 3 Importance of attitudes and its effective on personality
- CO 4 Building Emotional Competence

BSM (201) Bacteriology & Virology

- CO 1 Understanding of the bacterial cellular organization, cell organelles, bacterial classification, taxonomic tools, diversity and their importance
- CO 2 Students will have knowledge of virus structure, types, genomes, classification, multiplication and role in cancer

BSM (202) Mycology & Phycology

- CO 1 **Introduction and characteristics of Fungi, Algae, Lichens & Mycorrhizae**
- CO 2 Explain Cell Structures, Classification, life cycle & economic importance of Algae, Fungi, and Lichens.
- CO 3 Also explain its economic importance.

BSM (203) Life Sciences-II

- CO 1 Classification and characteristics of different classes of chordate and non-chordata.
- CO 2 Fundamental knowledge of animal histology and physiology, Concept of animal evolution
- CO 3 Scientific process and practical applications of applied zoology

BSM (204) Chemistry-II

- CO 1 Understand general organic chemistry and its application on chemical reactions.
- CO 2 Synthesise the intermediates in control manner.
- CO 3 Synthesise the molecules in stereospecific and stereoselective manner
- CO 4 Prepare the Grignard reagent and apply it chemical reactions.
- CO 5 Synthesise the petrol in laboratory and their fractionation and cracking.
- CO 6 Determine the age of earth by carbon dating and apply the radioactive elements in general life.

BSM (221) Bacteriology & Virology Lab

- CO 1 To understand viral cell cultivation
- CO 2 To learn the different methods of bacteria culture
- CO 3 To study cell behavior in different environment

BSM (222) Mycology & Phycology Lab

- CO 1 To study the structure and cellular organization of the fungi
- CO 2 To study the structure and cellular organization of the Algae
- CO 3 To understand the nutrient requirements of the fungal and algal cells

BSM (224) Chemistry-II Lab.

- CO 1 To understand basic chemical reactions
- CO 2 To analyses the salts along with their confirmatory tests

CO 3 To study the chemical behavior of the salts

BSM (301) Microbial Physiology & Metabolism

CO 1 Explain nutritional requirements of microorganism and their growth

CO 2 Explain metabolic processes in details

BSM (302) Molecular Biology & RDT

CO 1 Explain the properties of genetic materials and storage and processing of genetic information.

CO 2 Apply mechanisms of DNA replication, damage and its repair

CO 3 Explain mechanisms involved in gene expression.

CO 4 Explain the tools and techniques of genetic engineering including DNA manipulation enzymes, various Cloning and expression vectors

EVS (003) Environmental Sciences

CO 1 **Understand the importance**

CO 2 Evaluate local, regional

CO 3 Measure environmental variables

CO 4 Interpret the results

CO 5 Implement “Sustainable

BSM (321) Biochemistry & Microbial Physiology Lab.

CO 1 To understand the biochemical behavior of the microbial cells

- CO 2 To study the metabolic pathways and key enzymes
- CO 3 To learn the biochemical production of the various metabolites

BSM (322) Molecular Biology & RDT Lab.

- CO 1 To study the methods for the DNA extraction
- CO 2 To understand the plasmid and other genetic materials
- CO 3 To study the DNA purification methods

BSM (311) Bio-nanotechnology & Biosensors

- CO 1 To understand the properties of the nanoparticles
- CO 2 To study the physical properties of the nanomaterials
- CO 3 To learn the applications of the nanomaterials

BSM (312) Soil Microbiology

- CO 1 To study the soil microflora of the regions
- CO 2 To understand the interactions amongst soil microflora
- CO 3 To study the biogeochemical cycles of major nutrients

BSM (313) Food Biotechnology

- CO 1 To learn the applications of the food processing
- CO 2 To study the food regulations and agencies
- CO 3 To determine the food quality on the basis of food analysis

BSM (314) Cell Biology

- CO 1 To understand the cell signaling
- CO 2 To study about the functioning of the cell organelles
- CO 3 To understand the cell behavior, cancer and apoptosis

BSM (330) Term Paper

- CO 1 To study the scientific writing ethics
- CO 2 To understand the importance of writing ethics
- CO 3 To study the statistical tools and techniques

BSM (401) Immunology

- CO 1 Description of the cells, organs and molecules involved in immunity
- CO 2 Ability to describe the basic mechanisms that provide innate immunity
- CO 3 Understanding of the cell-mediated and humoral adaptive immune responses against extra and intracellular pathogens
- CO 4 Understanding of immuno-technologies

BSM (402) Fermentation Technology & Industrial Microbiology

- CO 1 Introduction to metabolic pathways and industrial productions
- CO 2 Understanding of the Fermentation Economics and Bioprocess Development.
- CO 3 Creating and Understanding the design of specialized Bioreactors.

BSM (403) Medical Microbiology

- CO 1 Explain the diversity in the microbial world including bacteria, viruses, fungi, microsporidia
- CO 2 Explain the role of microorganisms in a range of diseases, including the nature of the disease-causing organisms as well as their routes of transmission & how we can control them.
- CO 3 Explain Factors that limit microbial growth and survival in disease
- CO 4 Application of medical microbiology principles for clinical or public health benefits

BSM (421) Immunology & Medical Microbiology Lab.

- CO 1 To perform the antigen antibody interactions
- CO 2 To culture medically important pathogens
- CO 3 To determine the clinical traits of various human pathogens

BSM (422) Fermentation Technology & Industrial Microbiology Lab.

- CO 1 To learn about the batch and continuous fermentations
- CO 2 To screen microbial cells for various enzymes productions
- CO 3 To determine the microbial metabolites in a fermentation broth

BSM (411) Bioinformatics

- CO 1 To learn the computer-based technologies for DNA analysis
- CO 2 To learn the study of genomic tools
- CO 3 To understand the molecular docking and analysis

BSM (412) Pharmaceutical Technology & Microbiology

- CO 1 Understand the role of Pharmaceutical technology and microbiology in Pharmaceutical Industries.
- CO 2 Understanding of Pharmaceutical Dosage Forms & New Drug Delivery Systems.
- CO 3 Understanding of the Scope of Microbiology in Pharmaceutical Product development.
- CO 4 Understanding of pharmaceutical industrial process.

BSM (413) Biomaterial Science

- CO 1 To study the different biomaterials developed
- CO 2 To study the applications of the biomaterials
- CO 3 To determine the characteristics of the biomaterials

BSM (414) Inheritance Biology

- CO 1 To learn the Mendel genetics experiments
- CO 2 To study the population genetics
- CO 3 To learn the chromosome behaviors

BSM (501) Microbial Ecology & Diversity

- CO 1 Explain the microbial ecology and diversity
- CO 2 Explain role of microorganisms in environment

BSM (502) Microbial Genetics & Genomics

- CO 1 Understanding of bacterial and viral genetics
- CO 2 Knowledge of the genomics tools and techniques
- CO 3 Ability to demonstrate experiments of basic microbial genetics and genomics

BSM (503) Plant Pathology

- CO 1 Students will be exposed to Disease Cycle and relevant scientific contributions.
- CO 2 Explain Host – pathogen Interaction including plant defence mechanisms.
- CO 3 Exposure of Various Plant Diseases and their control measures

BSM (521) Microbial Ecology & Plant Pathology Lab.

- CO 1 To understand the factors involved in the microbial ecology
- CO 2 To study the cell behaviors in different ecological niche
- CO 3 To understand the methods involved in cultivation of microbial cells

BSM (522) Microbial Genetics & Genomics Lab.

- CO 1 To learn methods used in understanding the microbial genetics
- CO 2 To study the methods used for DNA purification and modifications
- CO 3 To learn about the process of the RDT

BSM (511) Industrial Safety & Management

- CO 1 To understand the levels of hazards in industrial management

- CO 2 To learn the methods adopted for industrial safety
- CO 3 To learn the regulations related to the industrial safety

BSM (512) IPR and Bioethics

- CO 1 To learn about the process of the IPR filling
- CO 2 To determine the factors and data relevant to the IPR filing
- CO 3 To understand the bioethics in microbiology

BSM (513) GMP & Microbial Quality Control

- CO 1 To understand the good manufacturing practices adopted
- CO 2 To learn the importance of the quality control in the industry
- CO 3 To study the interconnections of quality control and quality assurance

BSM (514) Clinical Research & Pharmacovigilance

- CO 1 Understanding of Drug Discovery and Development Process
- CO 2 Understanding for Profile of Clinical research and pharmacovigilance organizations
- CO 3 Understanding of drug regulatory aspects behind the Clinical research and pharmacovigilance
- CO 4 Understanding of Clinical trials designs and control

BSM (550) Summer Training Evaluation

- CO 1 To understand the functioning of Industrial setup
- CO 2 To study the scale of production at large scale

BSM (601) Bioanalytical Techniques & Statistics

- CO 1 To enable application of the theories and laws of physics to biological structure and functioning
- CO 2 To understand the principles and working of instruments commonly used to study biological material and for human health care, basic functioning and application of instruments
- CO 3 To understand statistics concepts, theories, and formulae
- CO 4 To be able to utilize the biostatistics tools for applications in the areas of life sciences in general and human health in particular

BSM (602) Food and Dairy Microbiology

- CO 1 Introduction of food and dairy Science.
- CO 2 Discuss food & Dairy Microorganisms, food preservation and Food Borne Disease.
- CO 3 Exposure to Food Sanitation & Quality Assurance.

BSM (603) Marine Microbiology

- CO 1 Know the basic biology of marine microorganisms and their activities
- CO 2 Understanding the ecological role of marine microorganisms and marine microbial communities
- CO 3 Know the main techniques of modern use necessary for the characterization and study of marine microbes
- CO 4 Apply the principles of marine microbiology to understand the biological phenomena occurring in marine environments.

BSM (650) Industrial Tour/Educational Tour

- CO 1 To expose the students for industrial functioning
- CO 2 To understand the process of quality control and quality assurance
- CO 3 To understand the process of product research

BSM (660) In-House project/Dissertation

- CO 1 To perform the project work in assigned laboratory
- CO 2 To understand the importance of the scientific ethics
- CO 3 To study the statistical tools and techniques



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF MICROBIAL TECHNOLOGY (AIMT)

Master of Science (M.Sc.)

Programme Outcome (PO)

PO1: To be able to analyse problems, formulate a hypothesis, evaluate and validate results; acquire capacity to extrapolate from what one has learned and apply the competencies to solve different kinds of non-familiar problems.

PO2: To acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethics in the subject concerned; identify unethical behaviour, plagiarism and acquire knowledge of plagiarism tools.

PO3: To develop analytical reasoning and to evaluate the reliability and relevance of scientific evidence; acquire logical thinking; analyse and synthesise data from a variety of sources with valid interpretations and conclusions.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF MICROBIAL TECHNOLOGY
(AIMT)**

**Master of Science
(Industrial Microbiology)**

Programme Code: MMC

12292

Duration – 2 Years Full Time

(Programme Structure)

Credits Summary

M.Sc. Industrial Microbiology							
(02Years/ 04 Semesters)							
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non-Teaching Credit Courses (NTCC)	Anandam	Total
I	22	3	4	-	-	2	31
II	16	3	4	3	-	2	28
III	17	3	4	3	3	2	32
IV	-	-	-	-	25	-	25
Total	55	9	12	6	28	6	116

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non-Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

- Students will be able to acquire, articulate, retain and apply knowledge relevant to microbiology.
- Students will acquire and demonstrate competence in microbiology laboratory skills applicable to relevant industries and research.
- The student will communicate scientific concepts, experimental results, and analytical arguments clearly.
- Students will develop skill to become efficient entrepreneur, R & D or industry professional.

PROGRAMME STRUCTURE

AMITY INSTITUTE OF MICROBIAL TECHNOLOGY (AIMT)

M.Sc. –INDUSTRIAL MICROBIOLOGY

FIRST SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MMC 101	Introduction to Industrial Microbiology	CC	4	-	-	4
MMC 102	Microbial Physiology	CC	3	1	-	4
MMC 103	Enzyme Technology and Biosensors	CC	3	1	-	4
MMC 104	Microbial Genetics & Strain Improvement	CC	3	1	-	4
MMC 121	Introduction of Industrial Microbiology Lab.	CC	-	-	4	2
MMC 122	Microbial Physiology Lab.	CC	-	-	2	1
MMC 123	Enzyme Technology and Biosensors Lab.	CC	-	-	2	1
MMC 124	Microbial Genetics & Strain Improvement Lab.	CC	-	-	4	2
Domain Elective-I: Choose anyone from the following courses						
MMC 111	Biostatistics, IPR, Biosafety and Bioethics	DE	3	-	-	3
MMC 112	Industrial Safety & Management					

Value Added Courses						
BCS 111	Communication Skills – I	VA	1	-	-	1
BSS 111	Behavioural Science – I [Self-Development and Interpersonal Skills]	VA	1	-	-	1
FLT 111 FLG 111 FLS 111 FLC 111	Foreign Language – I French German Spanish Chinese	VA	2	-	-	2
AND001	Aanandam I	NTCC	2	-	-	2
	TOTAL					<u>31</u>

SECOND SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MMC 201	Immunology	CC	4	-	-	4
MMC 202	Fermentation Technology and Metabolic Pathways	CC	3	-	-	3
MMC 203	Food and Dairy Microbiology	CC	3	-	-	3
MMC 221	Immunology Lab	CC	-	-	4	2
MMC 222	Fermentation Technology and Metabolic Pathways Lab	CC	-	-	4	2
MMC 223	Food and Dairy Microbiology Lab	CC	-	-	4	2
Domain Elective-II :Choose any one from the following courses						
MMC 211	Pharmaceutical Microbiology & Herbal Technology	DE	3	-	-	3
MMC 212	Nanobiotechnology					
MMC 213	Bio- entrepreneurship					

Open Elective-I		OE				3
BCS 211	Communication Skills – II	VA	1	-	-	1
BSS 211	Behavioural Science – II [Behavioural Communication and Relationship Management]	VA	1	-	-	1
FLT 211 FLG 211 FLS 211 FLC 211	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
AND002	Aanadam-II	NTCC	2	-	-	2
TOTAL						28

Note: -Term Paper/ Case Study topic distribution before summer vacations and will be evaluated in Third Semester.

THIRD SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MMC 301	RDT & Genomics	CC	3	1	-	4
MMC 302	Environment & Agricultural Microbiology	CC	3	-	-	3
MMC 303	Clinical Microbiology	CC	3	1	-	4
MMC 321	RDT & Genomics Lab	CC	-	-	4	2
MMC 322	Environment & Agricultural Microbiology Lab	CC	-	-	4	2
MMC 323	Clinical Microbiology Lab	CC	-	-	4	2
Domain Elective-III: Choose any one from the following courses						
MMC 311	Instrumentation &	DE	3	-	-	3

	Techniques in Microbiology					
MMC 312	Marine Microbiology					
MMC 313	Cellular Microbiology					
Open Elective- II		OE				3
MMC 330	Term Paper	NTCC	-	-	-	3
BCS 311	Communication Skills – III	VA	-	-	-	1
BSS 311	Behavioural Science – III [Leading Through Teams]	VA	-	-	-	1
FLT 311 FLG 311 FLS 311 FLC 311	Foreign Language – III French German Spanish Chinese	VA	-	-	-	2
AND 003	Aanandam III	NTCC	2	-	-	2
TOTAL						32

FOURTH SEMESTER

Course Code	Course Title	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MMC 460	Research Project & Dissertation	-	-	-	25
	TOTAL	-	-	-	25

Total Credits (31+28+32+25) =

COURSE OUTCOMES

AMITY INSTITUTE OF MICROBIAL TECHNOLOGY (AIMT)

M.Sc. INDUSTRIAL MICROBIOLOGY

MMC (101) Introduction to Microbiology

- CO 1** Introduction and historical information on Microorganisms and their use in different industries
- CO 2** Acquire experimental skills of microbial handling
- CO 3** Demonstrate the advanced application of Microbes in emerging areas

MMC (102) Microbial Physiology

- CO 1** Able to describe the principals of metabolism and growth process in microbes
- CO 2** Explain the principals of microbial metabolism and nutrition based on experimental results
- CO 3** Evaluate and relate contemporary issues with reference to microbial physiology

MMC (103) Enzyme Technology and Biosensors

- CO 1** Distinguish the fundamentals of enzymes, properties, characteristics, and mechanism.
- CO 2** Compare methods for production, purification, immobilization, and applications of enzymes.
- CO 3** Discover the current and future trends of enzyme technology, protein engineering and biosensor design.

MMC (104) Microbial Genetics & Strain Improvement

- CO 1** Understanding of genetic material and ability to explain the processes and mechanism behind mutagenesis and recombination
- CO 2** Ability to explain genome expression and genetic regulatory mechanisms
- CO 3** Capability to do genetic analysis of microbes and apply knowledge for strain improvement

MMC (121) Introduction of Industrial Microbiology Lab.

- CO 1 To provide hands on experience to the students about microbiology experiments
- CO 2 To understand cultivation of microorganisms
- CO 3 To understand the techniques used in microbiology laboratory

MMC (122) Microbial Physiology Lab

- CO 1 To provide hands on experience to the students about microbiology experiments
- CO 2 To understand cultivation of microorganisms
- CO 3 To understand the techniques used in microbiology laboratory
- CO 1 To understand microbial physiology, nutrition and growth
- CO 2 To grow the microbial cells for mass production of metabolites
- CO 3 To understand the resistance in microbial cells

MMC (123) Enzyme Technology and Biosensors Lab.

- CO 1 To understand the enzyme production and activity estimation
- CO 2 To explore the application of enzymes in industry
- CO 3 To study the behavior of the enzyme in different systems

MMC (124) Microbial Genetics & Strain Improvement Lab.

- CO 1 To understand the techniques used for DNA estimation
- CO 2 To perform the process of strain improvement
- CO 3 To differentiate between extracellular and genomic DNA

MMC (111) Biostatistics, IPR, Biosafety and Bioethics

- CO 1 Application of the statistical tools in biological research
- CO 2 Understanding of the ethical issues while planning the research
- CO 3 Understanding of the preservation of intellectual property

MMC (112) Industrial Safety and Management

- CO 1 Understanding of the industrial hazards and their control
- CO 2 Ability to design industrial plant, maintaining plant safety and industrial laws
- CO 3 Prevention of the occupational diseases

MMC (201) Immunology

- CO 1 Enlisting and explanation of the cells, organs and molecules involved in immunity
- CO 2 Ability to describe the basic mechanisms that provide innate immunity
- CO 3 Understanding of the cell-mediated and humoral adaptive immune responses against extra and intracellular pathogens
- CO 4 Exploration of the immune system for various types of diseases and immunotherapy

MMC (202) Fermentation Technology and Metabolic Pathways

- CO 1 Introduction to metabolic pathways and industrial productions
- CO 2 Understanding of the Fermentation Economics and Bioprocess Development.
- CO 3 Creating and understanding the design of specialized Bioreactors.

MMC (202) Fermentation Technology and Metabolic Pathways

- CO 1 Introduction to metabolic pathways and industrial productions
- CO 2 Understanding of the Fermentation Economics and Bioprocess Development.
- CO 3 Creating and understanding the design of specialized Bioreactors.

MMC (203) Food and Dairy Microbiology

- CO 1 Introduction of food and dairy biochemistry & biology.
- CO 2 Discuss food & Dairy Microorganisms, food preservation and food commodities.
- CO 3 Exposure to Food Quality Assurance.

MMC (221) Immunology Lab

- CO 1 To understand the antigen antibody interactions
- CO 2 To study the immunological properties of cells
- CO 3 To determine the immunogenic profiles of cells

MMC (222) Fermentation Technology and Metabolic Pathways Lab

- CO 1 To study the different fermentation processes
- CO 2 To understand the production of various metabolites
- CO 3 To understand the process of the industrial processing's

MMC (223) Food and Dairy Microbiology Lab.

- CO 1 To understand role of microorganism in food and dairy processing
- CO 2 To study the role of food composition on the microbial growth
- CO 3 To determine the impact of the environmental factors on the growth

MMC (211) Pharmaceutical Microbiology and Herbal Technology

- CO 1 Understand the role of pharmaceutical technology and microbiology in the development and validation of different pharmaceutical dosage forms.
- CO 2 Understanding of Pharmaceutical Dosage Forms & New Drug Delivery Systems.
- CO 3 Understanding of the role of Microbiology in Pharmaceutical Product development.
- CO 4 Understanding of herbal pharmaceutical industrial process.

MMC (212) Nanobiotechnology

- CO 1 To explore the applications of nanotechnology in biological sciences
- CO 2 To understand the structural properties of the nanomaterials
- CO 3 To study the properties of the nanomaterials

MMC (213) Bio-entrepreneurship

- CO 1 To develop entrepreneurship skills in the students
- CO 2 To assess the startup project ideas in life sciences
- CO 3 To study the market research, marketing strategies for enterprise fundings

MMC (301) RDT & Genomics

- CO 1 Explain the tools and techniques of genetic engineering, DNA manipulation enzymes, genome and transcriptome analysis and manipulation tools.
- CO 2 Introduction of gene expression regulation, production and characterization of recombinant proteins.

CO 3 Knowledge of advances in biotechnology- healthcare, agriculture and environment cleanup via recombinant DNA technology.

MMC (302) Environmental & Agricultural Microbiology

CO 1 Introduce components of environment (Air, Water & Soil) and their interaction with indigenous microorganisms.

CO 2 Introduction of beneficial Microorganisms and their role in Mineral cycles and Agriculture.

CO 3 Explain Host Plant Interaction, also discuss sustainable waste management.

MMC (303) Clinical Microbiology

CO 1 Understanding of infection biology and host-pathogen interactions

CO 2 Ability to do direct and indirect diagnosis of the diseases

CO 3 Knowledge of the disease prevention measures

MMC (321) RDT & Genomics Lab

CO 1 To understand the techniques used in the RDT technologies

CO 2 To differentiate the COned cells from non-COned cells

CO 3 To study the gene COning methods

MMC (322) Environmental & Agricultural Microbiology Lab

CO 1 To understand the role of the microbes in agriculture and environment

CO 2 To understand the synergies of microorganisms in different ecological niche

CO 3 To study the role of microflora in contaminants managements

MMC (323) Clinical Microbiology Lab

CO 1 To study the pathogenesis of given human pathogens

CO 2 To understands the preventive and control measures

CO 3 To study the diagnostics and epidemiological aspects

MMC (311) Instrumentation & Techniques in Microbiology

CO 1 Explain concept of techniques-based outcome relating to growth limitation and sterilization, culturing micro-organisms and microorganisms identification.

CO 2 Explain the applications of instruments and techniques in biomolecular studies

MMC (312) Marine Microbiology

CO 1 To understand the microbial diversity of the marine environments

CO 2 To determine the applications of the marine microflora

MMC (313) Cellular Microbiology

CO 1 To understand the mechanisms behind the cell functioning's

CO 2 To study the cell signaling and pathways

MMC (330) Term Paper

CO 1 To search and prepare a scientific information's

CO 2 To develop the scientific writing abilities

CO 3 To understand the tools and scientific ethics in term paper

MMC (330) Research Project & Dissertation/In House project

CO 1 To search and prepare a scientific information's

CO 2 To develop the scientific skills during industrial project

CO 3 To understand the tools and scientific ethics in term paper



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF APPLIED SCIENCES (ASAS)

Bachelor of Science (B.Sc.)

Programme Outcome (PO)

PO1: To identify, formulate and analyse complex problems, and to reach substantial conclusions using principles of sciences.

PO2: To apply various statistical tools to research problems and to develop the ability to build statistical knowledge.

PO3: To develop scientific intuition, ability and techniques to tackle problems, either theoretical or experimental in nature.

PO4: To inculcate scientific thinking, awareness and ability to use necessary current techniques, skills and modern tools.

PO5: To understand the impact of scientific solutions on societal and environmental contexts and to demonstrate knowledge of and need for sustainable development.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF APPLIED SCIENCES
(ASAS)**

Bachelor of Science (Pass Course) PCM

Programme Code: BSM

121414

Duration- 3 Years Full Time

Programme Structure

Credit Summary Sheet

Credits UG (3 years/ 6 semesters)					
Semester	Core (CC)	Domain Elective (DE)	V/ A	Open Electives(OE)	Total
1	18	0	6	0	24
2	18	0	6	3	27
3	18	0	6	3	27
4	18	3	6	3	30
5	18	3	6	3	30
6	21	3	2	0	26
Total	111	9	32	12	164

Program Specific Outcomes (PSOs)

The programme acts as a foundation degree and helps to develop critical, analytical and problem solving skills at first level. The foundation degree makes the graduates employable in scientific organizations and to assume administrative position in various types of organizations. Further, acquisition of higher level degrees helps the graduates to pursue a career in academics or scientific organizations as a researcher.

After undergoing this programme, a student will be able to:

1. Identify and describe basic laws and principles governing natural and man-made physical systems,
2. Explain the underlying scientific principles that govern the systems
3. Conduct experiments as per the procedures, tabulate data and interpret results
4. Work as a member of a scientific project team and communicate across teams
5. Conduct himself/herself as a responsible citizen and professional which can further act as educationalist, academician, researcher and administrators in public, private and government organizations or business administrator with further training and education
6. Choose appropriate programmes for further learning; participate in seminars and conference work alongside engineering, medical, ICT professionals and scientists to assist them in scientific problem solving
7. Pursue masters and doctoral research degrees to work in colleges, universities as professors or as scientists in research establishments

PROGRAMME STRUCTURE

AMITY SCHOOL OF APPLIED SCIENCES (ASAS)

Bachelor of Science (Pass Course) PCM

FIRST SEMESTER

Code	Course	Category	L	T	P	Credits
BSP 101	Differential Calculus	CC	3	-	-	3
BSP 102	Integral and Vector Calculus	CC	3	-	-	3
BSP 103	Mechanics	CC	2	-	-	2
BSP 104	Electromagnetism	CC	2	-	-	2
BSP 105	Physics Lab -I	CC	-	-	2	2
BSP 106	Molecular Structure and Bonding in compounds	CC	2	-	-	2
BSP 107	Some Concepts of Organic Chemistry and Hydrocarbons	CC	2	-	-	2
BSP 108	Chemistry Lab-I	CC	-	-	2	2
Value Added Courses						
BCS 101	English	VA	1	-	-	1
BSS 103	Behavioral Science – I	VA	1	-	-	1
	Foreign Language -I	VA	2	-	-	2
FLF 101	French- I					
FLG 101	German-I					
FLS 101	Spanish-1					
FLC 101	Chinese-I					
AND001	Anandam	NTCC			2	2
	Total					24

SECOND SEMESTER

Code	Course	Category	L	T	P	Credits
BSP 201	Abstract Algebra	CC	3	-	-	3
BSP 202	Three Dimensional Geometry	CC	3	-	-	3
BSP 203	Oscillation and Waves	CC	2	-	-	2
BSP 204	Optics	CC	2	-	-	2
BSP 205	Physics Lab -II	CC	-	-	2	2
BSP 206	Basics of Organic Chemistry	CC	2	-	-	2
BSP 207	Fundamentals of physical chemistry	CC	2	-	-	2
BSP 208	Chemistry Lab -II	CC	-	-	2	2
Open Elective 1						
		OE	3	-	-	3
Value Added Courses						
BCS 201	English	VA	1	-	-	1
BSS 203	Behavioral Science – II	VA	1	-	-	1
	Foreign Language – II	VA	2	-	-	2
FLF 201	French- II					
FLG 201	German-II					
FLS 201	Spanish-II					
FLC 201	Chinese-II					
AND002	Anandam	NTCC			2	2
	Total					27

THIRD SEMESTER

Code	Course	Category	L	T	P	Credits
BSP 301	Real Analysis	CC	3	-	-	3
BSP 302	Differential Equations	CC	3	-	-	3
BSP 303	Thermodynamics and statistical physics	CC	2	-	-	2
BSP 304	Electronics	CC	2	-	-	2
BSP 305	Physics Lab -III	CC	-	-	2	2
BSP 306	Inorganic Chemistry -I	CC	2	-	-	2
BSP 307	General Organic Chemistry-I	CC	2	-	-	2
BSP 308	Chemistry Lab -III	CC	-	-	2	2
Open Elective 2						
		OE	3	-	-	3
Value Added Courses						
BCS 301	Communication Skills – I	VA	1	-	-	1
BSS 303	Behavioral Science – III	VA	1	-	-	1
	Foreign Language -III	VA	2	-	-	2
FLF 301	French- III					
FLG 301	German-III					
FLS 301	Spanish-III					
FLC 301	Chinese-III					
AND003	Anandam	NTCC			2	2
	Total					27

FOURTH SEMESTER

Code	Course	Category	L	T	P	Credits
BSP 401	Dynamics	CC	3	-	-	3
BSP 402	Numerical Analysis	CC	3	-	-	3
BSP 403	Mathematical Physics	CC	2	-	-	2
BSP 404	Solid state Physics and Devices	CC	2	-	-	2
BSP 405	Physics Lab -IV	CC	-	-	2	2
BSP 406	Chemistry of States of Matter	CC	2	-	-	2
BSP 407	General Organic Chemistry II	CC	2	-	-	2
BSP 408	Chemistry Lab -IV	CC	-	-	2	2
DE Electives: Student has to select 1 course from the list of following DE electives						
BSP 409	Number Theory	DE	3	-	-	3
BSP 410	Digital Electronics & Microprocessor					
BSP 411	Nuclear/Radio chemistry					
Open Elective 3						
		OE	3	-	-	3
Value Added Courses						
BCS 401	Communication Skills – II	VA	1	-	-	1
BSS 403	Behavioral Science – IV	VA	1	-	-	1
	Foreign Language – IV	VA	2	-	-	2
FLF 401	French- IV					
FLG 401	German-IV					
FLS 401	Spanish-1V					
FLC 401	Chinese-IV					
AND004	Anandam	NTCC			2	2
	Total					30

FIFTH SEMESTER

Code	Course	Category	L	T	P	Credits
BSP 501	Metric and Vector space	CC	3	-	-	3
BSP 502	Operations Research	CC	3	-	-	3
BSP 503	Quantum Physics	CC	2	-	-	2
BSP 504	Nuclear and Particle Physics	CC	2	-	-	2
BSP 505	Physics Lab -V	CC	-	-	2	2
BSP 506	Inorganic Chemistry-II	CC	2	-	-	2
BSP 507	Advance Physical Chemistry	CC	2	-	-	2
BSP 508	Chemistry Lab -V	CC	-	-	2	2
DE Electives: Student has to select 1 course from the list of following DE electives						
BSP 509	Partial Differential Equation	DE	3	-	-	3
BSP 510	Laser Physics					
BSP 511	Quantum Chemistry & Spectroscopy-I					
Open Elective 4						
		OE	3	-	-	3
Value Added Courses						
BCS 501	Communication Skills - III	VA	1			1
BSS 503	Behavioral Science – V	VA	1			1
	Foreign Language – V	VA	2	-	-	2
FLF 501	French- V					
FLG 501	German- V					
FLS 501	Spanish- V					
FLC 501	Chinese- V					
AND005	Anandam	NTCC			2	2
	Total					30

SIXTH SEMESTER

Code	Course	Category	L	T	P	Credits
BSP 601	Function of Complex Variable	CC	3	-	-	3
BSP 602	Linear Algebra	CC	3	-	-	3
BSP 603	Atomic and Molecular Spectroscopy	CC	2	-	-	2
BSP 604	NanoScience & technology	CC	2	-	-	2
BSP 605	Physics Lab -VI	CC	-	-	2	2
BSP 606	Bio-inorganic and Polymer Chemistry	CC	2	-	-	2
BSP 607	Bio-Organic Chemistry	CC	2	-	-	2
BSP 608	Chemistry Lab -VI	CC	-	-	2	2
BSP 640	Seminar (P/C/M)	CC	-	-	-	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BSP 609	Atmospheric Physics	DE	3	-	-	3
BSP 610	Game Thoery					
BSP 611	Heterocyclic Chemistry&Spectroscopy-II					
AND006	Anandam	NTCC			2	2
	Total					26

COURSE OUTCOMES

AMITY SCHOOL OF APPLIED SCIENCES (ASAS)

B.Sc. (Passcourse)

BSP 101 Differential Calculus

Investigate the basic concept and applications of differential and integral Calculus.

Apply Lagrange's theorem, Taylor's theorem and mean value theorems.

Calculate asymptotes, curvature, tangents & normals, maxima & minima, partial derivatives.

Recognize and able to trace the Cartesian and polar curves.

BSP 102 Integral and vector Calculus

Reduction Formulae of trigonometric functions and know properties of Gamma and Beta functions

Understand some basic properties of length of Cartesian and polar curves. Quadrature: Area of Cartesian and polar curves, Volumes and Surfaces of solids of revolution.

Understand Double integrals, Change of order of integration, Triple integrals, Dirichlet's Integral.

Understand Scalar and vector point functions and their properties.

Understand Identities involving differential vector operators.

BSP 103 Mechanics

Explain Physical Laws and Frames of Reference

Discuss Centre of mass

Describe Motion under central forces

Explain Special theory of relativity

BSP 104 **Electromagnetism**

develop an understanding of the various concepts of Vector and scalar field.

solve simple problems on Vector and scalar field.

explain and interpret the electromagnetic wave.

define and understand electrostatics and dielectrics.

Impart Maxwell's equations and their problems.

BSP 106 **Molecular Structure and bonding in compounds**

To acquire knowledge of atomic bonds

To understand the properties p block elements

To acquire knowledge of molecular structure

BSP 107 **Some concepts of organic Chemistry and hydrocarbons**

Understanding of organic reactions

To understand IUPAC nomenclature

BSP 201 **Abstract Algebra**

Investigate the fundamental concepts including groups, subgroups, normal subgroups, homeomorphisms and isomorphism.

Demonstrate knowledge and understanding of rings, fields and their properties.

Apply algebraic ways of thinking.

Develop algebraic methods to solve the problems using appropriate techniques.

BSP 202 **Three Dimensional Geometry**

Understanding geometrical structures

Application of coordinate system

Understanding spherical dimensions

BSP 203 Oscillation and waves

Develop an understanding of Simple harmonic motion

Driven harmonic oscillator

Explain Coupled oscillators

Define and understand Wave motion

BSP 204 Optics

Develop an understanding of Geometric Optics and its applications

Explain Interference, diffraction and polarization

BSP 206 Basics of Organic Chemistry

Recognise many functional groups such as arenes and alkyl halides and their reactivity

Interpret data related to the aromaticity and stereochemistry

Recognise many fundamental bond forming reactions and how to apply them in synthesis

Describe bonding models and appreciate how these impact on the properties of a simple molecule

Apply the use of various commercially used alkyl halide

Appreciate when different reactions are likely to compete and ways to bias reactions towards a single outcome

Understand how stereochemistry can be used to delineate a molecule's structure

Understand the influence of aromaticity and stereochemistry on a molecule's structure and reactivity

BSP 207 Fundamental of Physical Chemistry

Understanding of electro chemistry

Understanding chemical kinetics

Application of Thermodynamics in chemistry

BSP 301 Real Analysis

Order completeness of Real numbers

Real Sequences

Alternating Series

Reimann Integration

Uniform convergence , Sequence and series of function

BSP 302 Differential Equation

Explain the concept of differential equation.

Demonstrate the existence-uniqueness theorem of differential equations.

Identify ODEs and system of ODEs concepts that are encountered in the real world, understand and be able to communicate the underlying mathematics involved to help another person gain insight into the situation.

Apply the method of undetermined coefficients to solve the non-homogeneous linear differential equations with constant coefficients.

BSP 303 Thermodynamics and Statistical Physics

Comprehension knowledge of thermodynamics.

Immense understanding of thermodynamic relations

Knowledge of production of low temperature

Understanding of classical and quantum statistics.

BSP 304 Electronics

Understanding of basic circuit analysis

Explain Semi conductor diode and rectification

Explain BJT and amplifier.

BSP 306 Inorganic Chemistry-I

Understanding first and second transition series

Acquire knowledge of stereo knowledge

Acquire knowledge of coordination chemistry

BSP 307 General Organic Chemistry-I

Understand the UV absorption spectroscopy, IR spectroscopy and their applications in synthetic organic chemistry.

Understand types of alcohols and different types of name reactions.

Find out the types of aliphatic alcohols, aromatic alcohols, and re-arrangement reactions.

Find out the types of carbonyl compounds and different types of condensation reactions.

Find out the applications of different types of alcohols and carbonyl compounds in daily life.

BSP 401 Dynamics

Velocity and acceleration

Motion in a resisting medium

Central orbits-p-r equations, Apses, time in an orbit, Kepler's law of planetary motion.

Constrained motion in two dimensions

Moment of Inertia

BSP 402 Numerical Analysis

Investigate the solution of a nonlinear equation.

Create a function which closely fits given n- points in the plane by using interpolation method.

Apply numerical methods to obtain approximate solutions to mathematical problems.

Develop appropriate numerical methods to solve a differential equation.

BSP 403 Mathematical Physics

Comprehension knowledge of Vector Calculus

Immense understanding of Infinite Series and Fourier Series

Knowledge of Differential Equations

Understanding of Curvilinear coordinates.

BSP 404 Solid state Physics and devices

have a basic knowledge of crystal systems and spatial symmetries

have an understanding thermal, electrical and superconducting properties of solids

have an understanding of the magnetic properties of condensed matter

have an understanding of the recent trends in electronics devices

BSP 407 General Organic Chemistry-II

Acquire knowledge of Ethers And Epoxides

Acquire knowledge of Carboxylic Acids

Organic Compounds of Nitrogen

BSP 501 Metric and vector space

Metric Space: Definition with examples, Bounded set, Open set, closed sets

Continuous mappings, Sequence in a Metric Space

Separable Space, Compact spaces and Compact Sets

BSP 502 Operation Research

objective of OR, scope of OR. General Linear Programming problem

for Linear Programming, Big

BSP 503 Quantum Physics

Comprehension knowledge of WavemechanicsandSchrodingerequation.

Immense understanding of Schrodingerequation

Knowledge of Simple solutions of Schrödinger equation and Boundary value problems

Understanding of Simple harmonic oscillator

BSP 504 Nuclear and Particle Physics

Comprehension knowledge of nuclear properties.

Immense understanding of nuclear fission

Knowledge of production of Particle physics

Understanding of classical accelerator and devices.

BSP 507 Advance physical Chemistry

Photochemistry: Interaction of radiation with matter, difference between thermal and photochemical processes

Physical Properties and Molecular Structure: Optical activity, polarization

Solutions, Dilute Solutions and Colligative Properties: Ideal and non-ideal solutions, methods of expressing concentrations of solutions, activity and activity coefficient

BSP 511 Quantum Chemistry and spectroscopy -I

Elementary quantum Mechanics: Black-body, radiation, Planck's radiation law

Molecular orbital theory: Basic ideas-criteria for forming M.O. from A.O. construction of M.O's by LCAO. H₂⁺ ion calculation of energy

Spectroscopy: Introduction: Electromagnetic radiation, spectrum, basic features of different spectrometers, statement

BSP 601 Function of complex variable

De-Moivre's Theorem and its applications, Exponential, Sine, Cosine and Logarithm of a complex number

Analytic functions, C-R equation, Harmonic functions. Construction of analytic functions, Line integrals and their properties

Cauchy's integral theorem, Cauchy's Fundamental theorem, Fundamental theorem of Integral Calculus

BSP 602 Linear Algebra

Linear Systems and Gaussian Elimination, Linear systems. Matrix representation of linear systems

Orthogonality in Vector Spaces, Scalar products in R_n and C_n . Complex matrices and orthogonality in C_n

Eigenvalues and Eigenvectors, Eigenvalues and eigenvectors. Characteristic equation and polynomial. Eigenvectors and eigenvalues

BSP 603 Atomic and Molecular Spectroscopy

Comprehension knowledge of atomic spectrum

Immense understanding of spectra of alkali and alkaline atoms

Knowledge of X-ray spectra.

Understanding of infrared spectroscopy and Raman spectra.

BSP 604 Nano science and Technology

Understanding of nanoparticles.

Comprehension knowledge of preparation method.

Immense understanding of characterization techniques.

BSP 605 Bio Inorganic and polymer chemistry

Bioinorganic Chemistry: Essential and trace elements in Biological processes, metalloporphyrins with special reference to haemoglobin

Synthetic Dyes: Colour and constitution (electronic concept), Classification of dyes, Synthesis of Methyl orange, Congo red. Malachite

Silicones and Phosphazenes : Silicones :Phosphazenes as examples of inorganic polymers, nature of bonding in triphosphazenes

BSP 607 Bio-organic Chemistry

Organic Synthesis via Enolates : Acidity of α Hydrogens, alkylation of diethyl malonate and ethyl acetoacetate. Synthesis of ethyl acetoacetate

Amino Acids, Peptides, Proteins and Nucleic Acids: Classification, structure and stereochemistry of amino acids. Acid-base behaviour, is electric point and electrophoresis, Preparation and reactions of α - amino acids, Structure and nomenclature of peptides and proteins

Introduction, constituents of nucleic acids. Ribonucleosides and ribonucleotides, the double helical structure of DNA



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF APPLIED SCIENCES (ASAS)

Master of Science (M.Sc.)

Programme Outcome (PO)

PO1: To be able to analyse problems, formulate a hypothesis, evaluate and validate results; acquire capacity to extrapolate from what one has learned and apply the competencies to solve different kinds of non-familiar problems.

PO2: To acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethics in the subject concerned; identify unethical behaviour, plagiarism and acquire knowledge of plagiarism tools.

PO3: To develop analytical reasoning and to evaluate the reliability and relevance of scientific evidence; acquire logical thinking; analyse and synthesise data from a variety of sources with valid interpretations and conclusions.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF APPLIED SCIENCES
(ASAS)**

Master of Science-Applied Physics

Programme Code:12500

Duration- 2 Years Full Time

Programme Structure

Credit Summary Sheet

M.Sc. (Applied Physics)

Credits PG(2 yrs/4 semester) - M. Sc Applied Physics					
Semester	CC	DE	VA	OE	Total
1	23	-	6	0	29
2	20	4	6	3	33
3	26	4	4	3	37
4	21	-	-	-	21
					120

Program Specific Outcomes (PSOs)

The learning outcome of the program is:

- 1.) The program aims to impart advanced knowledge on various branches of Physics. This learning would build a bridge between theory and applications/technology.
- 2.) This program will also enable the students to carry out experimental work to enhance their knowledge of theoretical aspects of the subjects.
- 3.) The program would help the students to develop their problem solving abilities.
- 4.) The program will enhance the communication skills of the students.

The student will be ready to do research work independently in his/her area of interest.

PROGRAMME STRUCTURE

AMITY SCHOOL OF APPLIED SCIENCES (ASAS)

M.Sc. (Applied Physics)

FIRST SEMESTER

Course Code	Course Title	Category	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MAP101	Mathematical Physics	CC	3	1	-	4
MAP102	Classical Mechanics	CC	3	1	-	4
MAP103	Electronics	CC	3	1	-	4
MAP104	Electromagnetic Theory	CC	3	1	-	4
MAP105	Computer Programming using C Language	CC	3	1		4
MAP120	Electronics Lab	CC	-	-	4	2
MAP121	Computer Programming Lab Using 'C' – Language	CC	-	-	2	1
Value Added Courses						
BCS111	Communication Skills – I		1	-	-	1
BSS111	Behavioral Science – I		1	-	-	1
	Foreign Language – I					
FLT 101	French-I		2	-	-	2
FLG 101	German-I					
FLS 101	Spanish-I					
FLC 101	Chinese-I					
AND001	Anandam		-	-	2	2
	TOTAL					29

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work

SECOND SEMESTER

Code	Course	Category	L	T	P	Credits
MAP201	Solid State Physics	CC	3	1	-	4
MAP202	Statistical Mechanics	CC	3	1	-	4
MAP203	Quantum Mechanics	CC	3	1	-	4
MAP204	Numerical Methods & Data Analysis	CC	3	1	-	4
MAP220	Solid State Physics Lab	CC			4	2
MAP221	MAT Lab	CC			4	2
Domain Elective						
MAP205	Nanotechnology	DE	3	1	-	4
MAP206	Optical Fibers and Communications	DE				
Value Added Courses						
BCS211	Communication Skills – II	VA	1	-	-	1
BSS211	Behavioral Science – II	VA	1	-	-	1
	Foreign Language – II	VA	2	-	-	2
FLT 201	French-II					
FLG 201	German-II					
FLS 201	Spanish-II					
FLC 201	Chinese-II					
	OPEN ELECTIVES (OE-1)	OE				3
AND002	Anandam	VA	-	-	2	2
	TOTAL					33

SUMMER INTERNSHIP (8-10 WEEKS)

Note: Students must submit their summer internship report immediately on return from summer vacation in July /August and the same would be evaluated for 6 credit units, which would be included in the Third Semester marks.

THIRD SEMESTER

MAP301	Atomic & Molecular Physics	CC	3	1	-	4
MAP302	Nuclear Physics	CC	3	1	-	4
MAP303	Lasers & their Applications	CC	3	1	-	4
MAP 304	Material Sciences	CC	3	1	-	4
MAP320	Laser & Fiber Optics Lab	CC	-	-	4	2
MAP321	Optics Lab	CC	-	-	4	2
MAP355	Summer Internship (Evaluation)	CC	-	-	-	6
Domain Elective: Student has to choose one course from the following list						
MAP306	<ul style="list-style-type: none"> • Digital Electronics & Microprocessors • Non-conventional Energy Sources • Astrophysics 	DE	3	1	-	4
MAP307						
MAP308						
Value Added Courses						
BCS311	Communication Skills - III	VA	1	-	-	1
BSS311	Behavioral Science - III	VA	1	-	-	1
	Foreign Language - III	VA	2	-	-	2
FLT 301	French-III					
FLG 301	German-III					
FLS 301	Spanish-III					
FLC 301	Chinese-III					
	Open Elective -2	OE				3
	TOTAL					37

FOURTH SEMESTER

MAP460	Research Work Based Project*	CC	-	-	-	21
	TOTAL					21

Student will be sent to laboratories at universities, national institute and industries for their project based research work during 4th semester. At the end of 4th semester student will be evaluated on the basis of dissertation followed by presentation of their research work.

COURSE OUTCOMES

AMITY SCHOOL OF APPLIED SCIENCES (ASAS)

M.Sc. (Applied Physics)

MAP 101 Mathematical Physics

At the successful completion of this course you (the student) should be able to:

1. have a good grasp of the basic elements of complex analysis, including the calculation of calculus of residues. You will be able to determine the residues of a complex function and use the residue theorem to compute certain types of integrals.
2. analyze and solve standard differential equations of second order occurring in the Physical sciences
3. define Laplace transforms and its properties. The student would be able to use it to solve differential equations and mathematical problems relevant to the physical sciences.
4. expand a function in a Fourier series, and use Fourier Transform. 2.4 Relationship between course and program learning outcomes and assessments

MAP 102 Classical Mechanics

At the successful completion of this course you (the student) should be able to:

1. Describe mechanics of system particles and various principles.
2. Demonstrate Lagrangian and Hamiltonian equations.
3. Integrate two body central force problems
4. Integrate the principles to solve various motion related problems

MAP103 Electronics

At the successful completion of this course you (the student) should be able to:

1. Design and explain the electronic circuits for given specifications.
2. Explain the principle and circuitry of communication system.
3. Explain the principle of operation for microprocessor, architecture and programming.

MAP104 ELECTROMAGNETIC THEORY

At the successful completion of this course you (the student) should be able to:

1. Develop the concepts related to EM waves.
2. Explain the principle and solution of EM waves in physical worlds.
3. Explain the applications of maxwells equation.

MAP201 Solid State Physics

Upon successful completion of the course, students should:

- 1) Have a basic knowledge of crystal systems and spatial symmetries.
- 2) have an understanding of the elastic properties of solids and lattice vibrations;
- 3) have an understanding thermal, electrical and optical properties of solids
- 4) have an understanding of the magnetic properties of condensed matter;
- 5) have an understanding of the recent trends in Nanoscience

MAP 203 Quantum Mechanics

At the successful completion of this course you (the student) should be able to:

1. Explain perturbation theory and apply them to problems such as Zeeman effect etc.
2. Identify and examine the process of scattering process and apply the theory to real physical examples.
3. Solve and explain Klein Gordon and Dirac equation.
4. The student will also recognise symmetry principles and can apply the basics of the concept of field.

MAP 204 Numerical Methods and data Analysis

At the successful completion of this course you (the student) should be able to:

Use the different methods of approximation methods to solve polynomials and simultaneous equations.

Use various standard methods of interpolation to solve numerical problems.

Analyse and interpret data

Use numerical methods of differentiation and integration to solve the problems on integration and differentiation

MAP205 Nanotechnology

At the successful completion of this course you (the student) should be able to:

1. Theoretical and practical knowledge related to modern nanotechnology with quantum confinement effect.
2. Synthesis and characterization of materials.
3. Working process of electron microscopy and spectroscopy to understand properties of nanomaterials.
4. The skills needed to report and present results in a professional manner. The ability to evaluate research and academic publications. The ability to work independently with research.

MAP 207 Materials Science

At the successful completion of this course you (the student) should be able to:

1. Comprehension knowledge of the atomic arrangement in the materials with types of defects. Phase equilibrium will provide the appropriate understanding of transition in materials.
2. Immense understanding of electrical resistivity and conductivity of materials with magneto-optical effect.
3. Introduction to nanomaterials with synthesis and characterization techniques.
4. Application of nanomaterials in different devices such as: sensors, LED, supercapacitors etc.

MAP 301 Atomic and Molecular Physics

At the successful completion of this course you (the student) should be able to:

1. Describe the atomic spectra of one and two valance electron atoms.
2. Explain the change in behavior of atoms in external applied electric and magnetic field.
3. Explain rotational, vibrational, electronic and Raman spectra of molecules.
4. Describe electron spin and nuclear magnetic resonance spectroscopy and their applications.

MAP 302 Nuclear Physics

At the successful completion of this course you (the student) should be able to:

1. Comprehension knowledge of the Properties of deuteron.
2. Comprehension knowledge of Nucleon-nucleon scattering.
3. Nuclear fusion and fission.
4. Liquid drop model, Shell model
5. Enormous learning of Elementary particles.

MAP 303 LASERS AND THEIR APPLICATIONS

At the successful completion of this course you (the student) should be able to:

1. Explain processes like absorption and emission.
2. Appreciate and understand the various types of Lasers.
3. Explain and compare various line broadening mechanism.

Knowledge of Spectroscopy and various applications and properties of LASER

MAP305 Digital Electronics & Microprocessors

At the successful completion of this course you (the student) should be able to:

1. Design and explain the basics of digital electronic circuits.
2. Explain the principle and circuitry of digital circuits.
3. Explain the principle of operation for microprocessor, architecture and programming.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF APPLIED SCIENCES
(ASAS)**

M.Sc. (Applied Chemistry)

Programme Code:12509

Duration- 2 Years Full Time

Programme Structure

Credit Summary Sheet

M.Sc (Applied Chemistry)

Semester	CC	DE	VA	OE	Total
I	26	0	6	0	32
II	18	4	6	3	31
III	26	4	4	3	37
IV	21	0	0	0	21
Total	91	8	12	6	121

Core Courses: CC, Domain Electives: DE, Open Electives: OE

Program Specific Outcomes (PSOs)

M.Sc Applied Chemistry programme is designed to prepare graduates to attain the following program outcomes:

PSO1: To develop a firm foundation in the fundamentals and application of current chemical and scientific theories including those in Analytical, Inorganic, Organic and Physical Chemistries.

PSO2: Gain an ability to design and carry out scientific experiments as well as accurately record and analyze the results of such experiments as well as develop the skills of problem solving, critical thinking and analytical reasoning as applied to scientific problems.

PSO3: To develop an ability to exposure new areas of research in both chemistry and allied fields of science and technology..

PSO4: To produce individuals which will appreciate the central role of chemistry in our society and use this as a basis for ethical behavior in issues facing chemists including an understanding of safe handling of chemicals, environmental issues and key issues facing our society in energy, health and medicine.

PROGRAMME STRUCTURE

AMITY SCHOOL OF APPLIED SCIENCES (ASAS)

M.Sc. (Applied Chemistry)

FIRST SEMESTER

Course Code	Course Title	Category	(L)	(T)	(P)	Credits
Core Courses						
MAC101	Physical Chemistry	CC	3	1	-	4
MAC102	Organic Chemistry	CC	3	1	-	4
MAC103	Computer programming using “c” Language	CC	3	1	-	4
MAC104/ MAC105	Applied Mathematics/Applied Biology	CC	2	1	-	3
MAC155	Seminar		-	-		6
MAC120	Physical Chemistry lab	CC	-	-	4	2
MAC121	Organic Chemistry Lab	CC	-	-	4	2
MAC122	Computer programming using “c” Language lab	CC	-	-	2	1
Value Added Courses						
BCS111	Basics of Communication	VA	1	-	-	1
BSS111	Self Development and interpersonal skill	VA	1	-	-	1
FLT 101 FLG 101 FLS 101 FLC 101	Foreign Language – I French-1 German-1 Spanish-1 Chinese-1	VA	2	-	-	2
AND001	Anandam	VA	-	-	2	2
	TOTAL					32

SECOND SEMESTER

Course	Course Title	Category	(L)	(T)	(P)	Credits
Core Courses						
MAC 201	Analytical Chemistry	CC	3	1		4
MAC 202	Industrial and Applied Chemistry	CC	3	1		4
MAC 203	Inorganic Chemistry	CC	3	1		4
MAC-220	Analytical chemistry-Lab	CC			4	2
MAC-221	Industrial Chemistry-Lab	CC			4	2
MAC-223	Inorganic chemistry-Lab	CC			4	2
Domain Elective –I(Select any one of following)						
MAC-204	Drugs and Dyes	DE	3	1		4
MAC-205	Natural Products Chemistry	DE	3	1		4
MAC-206	Bioinorganic and Organometallic Chemistry	DE	3	1		4
MAC-207	Industrial Management and Safety Processes	DE	3	1		4
MAC-208	Environmental Chemistry	DE	3	1		4
MAC-209	Chemistry of cosmetics	DE	3	1		4
MAC-210	Nano Chemistry	DE	3	1	-	4
Value Added Courses						
BCS 211	Corporate Communication	VA	1	-	-	1
BSS 211	Behavioral Communication and Relationship Management	VA	1	-	-	1
FLT 201 FLG 201 FLS 201 FLC 201	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
AND002	Anandam		-	-	2	2
OPEN ELECTIVE-II						
	OE-I	OE				3
	Total					31

SUMMER INTERNSHIP

Note: Students must submit their summer internship report immediately on return from summer vacation in July /August and the same would be evaluated for 6 credit units, which would be included in the Third Semester marks.

THIRD SEMESTER

Course Code	Course Title	Category	(L)	(T)	(P)	Credits
Core Courses						
MAC 301	Instrumental Method of Analysis I	CC	3	1	-	4
MAC 302	Synthetic Organic Chemistry	CC	3	1	-	4
MAC 303	Introduction to Polymeric Materials	CC	3	1	-	4
MAC-304	Chemistry of Materials and Nano Materials	CC	3	1		4
MAC 355	Summer Internship(Evaluation)	CC	-	-	-	6
MAC320	Applied Chemistry Lab	CC			4	2
MAC321	Instrumental Lab	CC			4	2
Domain Elective –II(Select any one of following)						
MAC305	Medicinal Chemistry	DE	3	1		4
MAC306	Polymer Technology	DE	3	1		4
MAC307	Green Chemistry	DE	3	1		4
MAC308	Industrial Waste and Water Treatment	DE	3	1		4
MAC309	Nuclear Chemistry	DE	3	1		4
Value Added Course						
BCS 311	Communication Skills – III	VA	1	-	-	1
BSS 311	Behavioural Science – III	VA	1	-	-	1
	Foreign Language – III	VA	2	-	-	2
FLT 301	French					
FLG 301	German					
FLS 301	Spanish					
FLC 301						
	Chinese					
	Open Elective- II		3			3
	TOTAL					37

FOURTH SEMESTER

Course Code	Course Title	Category	(L)	(T)	(P)	Credits
MAC460	Research Work Based Project*	CC				30

*Student will be sent to laboratories at universities, national institute and industries for their project based research work during 4th semester. At the end of 4th semester student will be evaluated on the basis of dissertation followed by presentation of their research work.

COURSE OUTCOMES

AMITY SCHOOL OF APPLIED SCIENCES (ASAS) **M.Sc. (Applied Chemistry)**

MAC- 101 PHYSICAL CHEMISTRY

At the successful completion of this course you (the student) should be able to:

1. Distinguish the maximum performance of a reaction from its rate of advancement to receive the product.
2. Be able to distinguish the usefulness of mathematics in physical chemistry and be inspired by the charm of their application.
3. Be able to quality the idea about the behavior of molecules and system in order to be able to cope with experiment.

MAC-201 ANALYTICAL CHEMISTRY

At the successful completion of this course the student will be able to:

1. Understand the role of spectroscopy and understand the sense of job responsibilities, while maintaining social and environment awareness.
2. Understand the manufacture of TLC and importance of these material in daily life. Understand the build-up a progressive and successful career in industries with a biotechnological perspective.
3. Understand the manufacturing of polarography.
4. Understand the significant number and understand the gap between knowledge based conventional education and market demands and provide an alternative to those pursuing higher education.
5. Understand the electro analytical techniques and the concept of experimental design in chemistry.
6. Understand the separation techniques and also understand the area of self employment.

MAC-202

Industrial and Applied Chemistry

At the successful completion of this course you (the student) should be able to:

1. Understand the role of Glass in Industry and understand the sense of job responsibilities, while maintaining social and environment awareness. Understand the manufacturing of soap and detergents
2. Understand the manufacture of cement and importance of these material in industry and daily life. Understand the build-up a progressive and successful career in cement industries with a biotechnological perspective. Understand the catalytic processes and the concept of experimental design in chemistry.
3. Understand the industrial processes and understand the gap between knowledge based conventional education and market demands and provide an alternative to those pursuing higher education. Understand the process of reactor and also understand the area of self employment.

MAC 203

Inorganic Chemistry

At the successful completion of this course you (the student) should be able to:

1. Identify the bonding fundamentals for metal ligand complexes, including their bonding, structure, reactivity, stability, magnetic properties, electronic spectra, chemical reactions and their applications
2. Learn the fundamentals of the chemistry of the transition metal complexes and metal- π complexes and their importance in real world applications
3. Basic and advanced laboratory procedures used in inorganic synthesis
4. Select and Implement the laboratory safety rules
5. Demonstrate awareness of the solutions of problems encountered in an experiment which can be further utilized for work or education
6. Analyse how to maintain standards of professional and scientific ethics.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF APPLIED SCIENCES
(ASAS)**

Master of Science – Applied Mathematics

Programme Code:12510

Duration- 2 Years Full Time

Programme Structure

Credit Summary Sheet

Credits PG (2 years/ 4 semesters)		PG			
Semester	Core (CC)	Domain	VA	Open	Total

		Electives (DE)		Electives(OE)	
1	21	0	6	0	27
2	21	4	6	3	34
3	26	4	4	3	37
4	21	0	0	0	21
Total	89	8	12	6	119

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective

Program Specific Outcomes (PSOs)

1. The learning outcome of the program is:
 1. Students will get qualified for many jobs in private and public sector including financial institutions.
 2. Value added courses would help students to improve job prospect.
 3. The flexi learning options would help students to choose appropriate subjects needed for their career.
 4. Students will also be able to pursue higher academic careers.

PROGRAMME STRUCTURE

AMITY SCHOOL OF APPLIED SCIENCES (ASAS)

Master of Science – Applied Mathematics

FIRST SEMESTER

Code	Course	Category	L	T	P	Credits
MAM 101	Complex Analysis	CC	3	1	-	4
MAM 102	Real Analysis	CC	3	1	-	4
MAM 103	Advanced Differential Equation	CC	3	1	-	4
MAM104	Probability Theory & Statistics	CC	3	1	-	4
MAM 105	Computer Mathematics and C Language	CC	3	1	-	4
MAM 120	Computer Mathematics and C Language Lab.	CC	-	-	2	1
Value Added Courses						
BCS 111	Communication Skills – I	VA	1	-	-	1
BSS 111	Behavioral Science – I	VA	1	-	-	1
	Foreign Language -I	VA	2	-	-	2
FLF 111	French- I					
FLG 111	German-I					
FLS 111	Spanish-1					
FLJ 111	Japanese-I					
FLC 111	Chinese-I					
AND001	Anandam		-	-	2	2
	Total					27

SECOND SEMESTER

Code	Course	Category	L	T	P	Credits
MAM 201	Advanced Abstract Algebra & Linear Algebra	CC	3	1	-	4
MAM 202	Numerical Methods & Data Analysis	CC	3	1	-	4
MAM 203	Optimization Techniques	CC	3	1	-	4
MAM 204	Statistical Methods	CC	3	1	-	4
MAM 205	Computer Programming Using c++	CC	3	1	-	4
MAM 220	Statistical Method Lab	CC	-	-	2	1
DE Electives: Student has to select 1 course from the list of following DE electives						
MAM 206	Number Theory	DE	3	1	-	4
MAM 207	Topology					
MAM 208	Fuzzy Sets and their Applications					
MAM 209	Coding Theory					
MAM 210	Special Functions and Transform Calculus					
Open Elective 1						
		OE	3	-	-	3
Value Added Courses						
BCS 211	Communication Skills – II	VA	1	-	-	1
BSS 211	Behavioral Science – II	VA	1	-	-	1
	Foreign Language – II	VA	2	-	-	2
FLF 211	French- II					
FLG 211	German-II					
FLS 211	Spanish-II					
FLJ 211	Japanese-II					
FLC 211	Chinese-II					
AND002	Anandam		-	-	2	2
	Total					34

SUMMER INTERNSHIP

Note: Students must submit their summer internship report immediately on return from summer vacation in July /August and the same would be evaluated for 6 credit units, which would be included in the Third Semester marks.

THIRD SEMESTER

Code	Course	Category	L	T	P	Credits
MAM 301	Mathematical Modeling	CC	3	1	-	4
MAM 302	Functional Analysis	CC	3	1	-	4
MAM 303	Discrete Mathematical Structures	CC	3	1	-	4
MAM 304	Mathematical Methods	CC	3	1	-	4
MAM 305	Partial Differential Equation	CC	3	1	-	4
MAM350	Summer Internship (Evaluation)	CC	-	-	-	6
DE Electives: Student has to select 1 course from the list of following DE electives						
MAM 306	Cryptography	DE	3	1	-	4
MAM 307	Biomechanics					
MAM 308	Classical Mechanics					
MAM 310	Lebesgue Measure Theory					
MAM 311	Information Theory					
Open elective 2						
		OE	3	-	-	3
Value Added Courses						
BCS 311	Communication Skills – III	VA	1			1
BSS 311	Behavioral Science – III	VA	1			1
Foreign Language – III		VA	2	-	-	2
FLF 311	French- III					
FLG 311	German-III					
FLS 311	Spanish-III					
FLJ 311	Japanese -III					
FLC 311	Chinese-III					
	Total					37

FOURTH SEMESTER

Code	Course	Category	L	T	P	Credits
MAM 460	Project	CC	-	-	-	21
	Total					21

COURSE OUTCOMES

AMITY SCHOOL OF APPLIED SCIENCES (ASAS) **Master of Science – Applied Mathematics**

MAM 101 COMPLEX ANALYSIS

At the successful completion of this course you (the student) should be able to:

1. Explain the fundamental concepts of complex analysis and their role in modern mathematics and applied contexts.
2. Demonstrate accurate and efficient use of complex analysis techniques.
3. Demonstrate capacity for mathematical reasoning through analyzing, proving and explaining concepts from complex analysis.
4. Apply problem-solving using complex analysis techniques applied to diverse situations in physics, engineering and other mathematical contexts.

MAM 102 Real Analysis

At the successful completion of this course you (the student) should be able to:

1. Explain the fundamental concepts of complex analysis and their role in modern mathematics and applied contexts.
2. Demonstrate accurate and efficient use of complex analysis techniques.
3. Demonstrate capacity for mathematical reasoning through analyzing, proving and explaining concepts from complex analysis.
4. Apply problem-solving using complex analysis techniques applied to diverse situations in physics, engineering and other mathematical contexts.

MAM 201 Advanced Abstract Algebra & Linear Algebra

At the successful completion of this course you (the student) should be able to:

1. Apply the basic methods of Set theory and applications.
2. Interpret and understand several important concepts in Abstract algebra, Group theory, Ring Theory, vector spaces, linear transformations.
3. Describe field theory and its application.
4. Explore and implement the principles of counting of subgroup and uses of Sylow's Theorems for abelian and non – abelian groups.
5. Analyse the linear dependencies among vector spaces.

MAM 202 Numerical Methods & Data Analysis

At the successful completion of this course you (the student) should be able to:

1. Investigate the solution of a nonlinear equation.
2. Create a function which closely fits given n - points in the plane by using interpolation method.
3. Apply numerical methods to obtain approximate solutions to mathematical problems.
4. Develop appropriate numerical methods to solve a differential equation.

MAM 203 Optimization Techniques

At the successful completion of this course you (the student) should be able to:

1. Investigate the solution of a nonlinear linear programming.
2. Create a research skill in the field of operation research.
3. Apply basic concepts of mathematics to formulate an optimization problem.
4. Develop linear programming (LP) models for shortest path, Assignment and transshipment problems.

MAM – 204 Statistical Methods

At the successful completion of this course you (the student) should be able to:

1. Analyse the probability and probability distribution
2. Select and implement the probability theory, make use of sampling and draw inferences
3. Calculate the multiple correlation and regression.
4. Apply different hypothesis testing techniques.
5. Investigate data conditions used for different sampling distributions.

MAM – 211 Special functions and transform calculus

At the successful completion of this course you (the student) should be able to:

1. To study general properties of Hypergeometric functions and its solution .
2. Learn to solve various problem related to Bessel's Functions and Legendre's Function.
3. To study general properties of Hermite Polynomials and generating function.
4. Learn to solve various problem of Differential Equations by using Fourier Transforms
5. To study general properties of Hankel Transform and its applications

6. Through the study of Special Functions and Transform Calculus, students will gain an understanding and appreciation of mathematical reasoning and will develop their problem solving skills.

MAM-301 Mathematical Modeling

At the successful completion of this course you (the student) should be able to:

1. Apply the basic methods of Set theory and applications.
2. Interpret and understand several important concepts in Abstract algebra, Group theory, Ring Theory, vector spaces, linear transformations.
3. Describe field theory and its application.
4. Explore and implement the principles of counting of subgroup and uses of Sylow's Theorems for abelian and non – abelian groups.
5. Analyse the linear dependencies among vector spaces.

MAP 102 Classical Mechanics

At the successful completion of this course you (the student) should be able to:

1. Describe mechanics of system particles and various principles.
2. Demonstrate Lagrangian and Hamiltonian equations.
3. Integrate two body central force problems
4. Integrate the principles to solve various motion related problems



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF APPLIED SCIENCES
(ASAS)**

**CENTER FOR OCEAN-ATMOSPHERIC SCIENCE & TECHNOLOGY
(COAST)**

**Master of Science
(Atmospheric and Environmental Sciences)**

Programme Code: MOA

121040

Duration- 2 Years Full Time

Programme Structure

Credit Summary Sheet

M.Sc. Atmospheric and Environmental Sciences (02 Years/ 04 Semesters)						
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non- Teaching Credit Courses (NTCC)	Total
I	21	0	6	-	-	27
II	18	3	4	3	-	28
III	18	3	4	3	3	31
IV	-	-	-	-	25	25
Total	54	9	12	6	28	111

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non - Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

- Describe the fundamentals principles governing motions and phenomena in Atmospheric and Environmental Sciences.
- Acquire knowledge about data handling, data interpretation, environmental, weather and climate forecast data display and physical and dynamical processes of Atmospheric & Environmental Sciences.
- Pursue higher degree (PhD) study programs in interdisciplinary area of Meteorology, Oceanography and Environmental Sciences.
- Acquire and demonstrate competence in Atmospheric and Environmental modeling and laboratory skills applicable to relevant industries and research.
- Student should be able to communicate scientific concepts, experimental results and analytical arguments clearly.
- After successful completion of the program student should be able to carry out higher study and research in the area of weather, climate and environmental sciences and become efficient entrepreneur, R & D or industry professional.

PROGRAMME STRUCTURE

CENTER FOR OCEAN-ATMOSPHERIC SCIENCE & TECHNOLOGY(COAST)

Master of Science-(Atmospheric and Environmental Sciences)

FIRST SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MOA 101	Atmospheric Physics	CC	3	-	-	3
MOA 102	Introduction to Oceanography	CC	3	-	-	3
MOA 103	Synoptic Meteorology	CC	3	-	-	3
MOA 104	Air Pollution Meteorology	CC	3	-	-	3
MOA 105	Lab 1: Fortran Programming	CC	-	1	4	3
MOA 106	Lab 2: Synoptic Analysis	CC	-	1	4	3
MOA 107	Introduction to Hydrology	CC	2	-	2	3
Domain Elective-I						
Value Added Courses						
BCS 111	Communication Skills – I	VA	1	-	-	1
BSS 111	Behavioural Science – I	VA	1	-	-	1
FLT 111 FLG 111 FLS 111 FLC 111	Foreign Language – I French German Spanish Chinese	VA	2	-	-	2
AND001	Anandam				2	2
	TOTAL					<u>27</u>

SECOND SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MOA 201	Atmospheric Dynamics	CC	3	-	-	3
MOA 202	Science of Climate and Climate Change	CC	3	-	-	3
MOA 203	Atmospheric Chemistry and Air Pollution	CC	3		-	3
MOA 204	Tropical Meteorology	CC	3	-	-	3
MOA 205	Lab 1: Climate Data Visualization and Analysis	CC	-	1	4	3
MOA 206	Lab 2: Programming with MATLAB	CC	-	1	4	3
Domain Elective-I:						
MOA 207	Environmental Risk Assessment	DE	3	-	-	3
	Open Elective-I	OE	3			3
BCS 211	Communication Skills – II	VA	1	-	-	1
BSS 211	Behavioural Science – II	VA	1	-	-	1
FLT 211 FLG 211 FLS 211 FLC 211	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
	TOTAL					<u>28</u>

THIRD SEMESTER

Course Code	Course Title	Category	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MOA 301	Earth System Modelling	C C	3	-	-	3
MOA 302	Land-Ocean- Atmospheric Interaction	C C	3	-	-	3
MOA 303	Urban Environment	C C	3	-	-	3
MOA 304	Statistical Methods in Atmospheric Sciences	C C	3		-	3
MOA 305	Lab 1: Environmental Simulations	C C	0	1	4	3
MOA 306	Lab 2: Statistical Analysis	C C	0	1	4	3
MOA 308	Summer Internship		-	-	-	3
Domain Elective-II: Choose any one from the following courses						
MOA 307	Agriculture Meteorology	D E	3	-	-	3
	Open Elective- II	OE	3			3
BCS 311	Communication Skills – III	VA	-	-	-	1
BSS 311	Behavioural Science – III	VA	-	-	-	1
FLT 311 FLG 311 FLS 311 FLC 311	Foreign Language – III French Germ an Spanis h Chine se	VA	-	-	-	2
	TOTAL					31

FOURTH SEMESTER

Course Code	Course Title	Lectures(L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MOA 401	Research Project & Dissertation	-	-	-	25
	TOTAL	-	-	-	25

COURSE OUTCOMES

CENTER FOR OCEAN-ATMOSPHERIC SCIENCE & TECHNOLOGY(COAST)

Master of Science-(Atmospheric and Environmental Sciences)

1st Semester

MOA 101 *Atmospheric Physics*

After completing the course, the students will be able to:

- 1) Present an overview of the fundamental concepts of atmospheric physics.
- 2) Understand the basic thermodynamic concepts for the atmosphere related to atmospheric stability and cloud formation, and to be able to explain weather phenomena.
- 3) Demonstrate an understanding of solar and terrestrial radiation.
- 4) Understand the energy transfer processes between the surface of the Earth and Atmosphere.

MOA 102 *Introduction to Oceanography*

After completing the course, the students will be able to:

- 1) Identify fundamental concepts in physics, chemistry, biology, geology, mathematics and engineering technologies as applicable to the study of modern oceanography.
- 2) Describe the common tools and techniques used in oceanography.
- 3) Demonstrate knowledge of the ocean's role within the Earth System Science.

- 4) Describe the natural and anthropogenic impacts on the oceans.

MOA 103 *Synoptic Meteorology*

After completing the course, the students will be able to:

- 1) Understand and explain the dynamic and thermodynamic characteristics of synoptic-scale weather systems.
- 2) Explain and apply numerous meteorological principles and concepts in synoptic-scale systems.
- 3) Critically evaluate multi-platform meteorological data (e.g., observations, models, satellite, radar etc.).
- 4) Apply knowledge of forecasting techniques and map interpretation.

MOA 104 *Air Pollution Meteorology*

After completing the course, the students will be able to:

- 1) Present knowledge of basic atmospheric chemistry and its role in air pollution.
- 2) Understand how organic compounds, such as Sulphur and Nitrogen-containing compounds, are converted and produces photochemical oxidants, smog, and acidification.
- 3) Explain the transformation of air pollution in the particle phase, the chemistry of stratosphere.
- 4) Describe the effect of weather on air pollution, global influence from air

pollution, interaction between troposphere and stratosphere, aerosols and their properties.

- 5) Describe the air polluting gases measurements and aerosols for making sustainable policy and defining research objectives.

MOA 105 *Lab 1: Fortran Programming*

After completing the course, the students will be able to:

- 1) Familiarizing with the basics of flowchart and then transform into a computer language (FORTRAN).
- 2) Understand the basics commands of FORTRAN and develop subroutines and functions for statistics, special functions and applied mathematics.
- 3) Analyze various iterative methods for a nonlinear equation and their convergence analysis in FORTRAN.
- 4) Developing the FORTRAN program for differentiation, integration and complex differential equations.

MOA 106 *Lab 2: Synoptic Analysis*

After completing the course, the students will be able to:

- 1) Utilize synoptic weather charts and numerical forecasting products in order to acquire skills needed to make competitive weather forecasts.
- 2) Use these skills for forecasting temperature, precipitation and other meteorological conditions at least for few days in advance.
- 3) Understand the conceptual models of wave cyclones, including those of their structure and evolution.

- 4) Explain the role of various physical processes, such as PVA, thermal advection, atmospheric stability, and diabatic heating, in the development and evolution of mid-latitude wave cyclones.

MOA 107 *Introduction to Hydrology*

After completing the course, the students will be able to:

- 1) Understand the hydrologic cycle and related major water quantity and quality challenges
- 2) Comprehend the basic water properties and can measure basic physical and biochemical aspects of water associated with hydrologic processes.
- 3) Understand the factors affecting the rainfall-runoff processes between total rainfall, abstraction losses to direct runoff and the formation of streamflow hydrographs.
- 4) Discuss the basic mechanisms of groundwater storage in confined and unconfined aquifers.

2nd Semester

MOA 201 *Atmospheric Dynamics*

After completing the course, the students will be able to:

- 1) Interpret the terms in the governing equations.
- 2) Understand the relations between variables in the equations.
- 3) Gain knowledge on when and how to apply assumptions to simplify the

- equations.
- 4) Recognize the strengths and limits of simplified solutions to the governing equations.

MOA 202 *Science of Climate and Climate Change*

After completing the course, the students will be able to:

- 1) Critically evaluate current understandings of the science of climate change, including future climate scenario development.
- 2) Critically appraise information about current and future impacts of climate change on biophysical and social systems, and vulnerability to climate change.
- 3) Evaluate a range of response strategies to climate change, including international and Indian adaptation and mitigation policy approaches.
- 4) Critique future climate change policy in the context of the international climate change negotiations, with application to their professional experience.

MOA 203 *Atmospheric Chemistry and Air Pollution*

After completing the course, the students will be able to:

- 1) Predict fate of molecules and radicals under typical atmospheric conditions.
- 2) Qualitatively explain and quantitatively compute trends in photolysis rate constants with altitude, season, and time of day for photochemistry of known molecules.
- 3) Qualitatively predict effects of chemical perturbations on catalytic cycles producing and destroying ozone.
- 4) Explain basic principles of greenhouse effect and compute global warming

potentials and predict major atmospheric degradation pathways of natural and anthropogenic trace gases.

MOA 204 Tropical Meteorology

After completing the course, the students will be able to:

- 1) Demonstrate knowledge of the climatology in the tropics and the physical processes underlying the tropical general circulation.
- 2) Demonstrate knowledge of the major sources of spatial, seasonal, and interannual tropical variability including tropical waves, ENSO, and MJO.
- 3) Demonstrate knowledge of the development, structure, and evolution of tropical cyclones.
- 4) Demonstrate the ability to analyze diverse data and models to forecast tropical cyclone track and intensity.

MOA 205 *Lab 1: Climate Data Visualization and Analysis*

After completing the course, the students will be able to:

- 1) Understand the fundamental design principles and create types of data visualization.
- 2) Conduct exploratory data analysis using visualization.
- 3) Apply the fundamental concepts of data visualization to do a climate data analysis.
- 4) Demonstrate the process of creating data visualization including data from

different sources, refining data quality, and converting raw data into visualizations offering meaningful solutions.

MOA 206 *Lab 2: Programming with MATLAB*

After completing the course, the students will be able to:

- 1) Able to use MATLAB for interactive computations.
- 2) Able to create and store values in variables, matrices, and their use.
- 3) Able to write codes/program scripts and functions using MATLAB.
- 4) Able to generate plots and export them for using in reports and presentations.

MOA 207 *Environmental Risk Assessment*
(DE)

After completing the course, the students will be able to:

- 1) Understand the environmental processes that shape the natural world at different temporal and spatial scales and their influence on and by anthropogenic activities.
- 2) Memorize the terminology, nomenclature, and classification systems used in environmental sciences.
- 3) Explain the methods of acquiring, analyzing, and interpreting environmental science data with a critical understanding of the appropriate contexts for their use.
- 4) Comprehend issues concerning the availability and sustainability of natural resources and provide solutions in minimizing human interventions causing loss of such resources.

3rd Semester

MOA 301 *Earth System Modelling*

After completing the course, the students will be able to:

- 1) Describe aspects of each component of the earth system that can influence and change climate patterns.
- 2) Understand the perspective of varying spatial and temporal scales of climate change, projected climate variability, and the range of uncertainties under various distinct radiative forcing scenarios.
- 3) Use basic numerical methods to solve simple climate equations or model systems of equations.
- 4) Offer solutions for problems in integration, differential equations, root-finding, and linear algebra with increased confidence using MATLAB (or R/ Python) to program simple numerical methods.

MOA 302 *Land-Ocean-Atmospheric Interaction*

After completing the course, the students will be able to:

- 1) Identify, discuss and compare various components of land, ocean, and atmospheric circulation.
- 2) Analyze and discuss the physical coupling of momentum, heat, moisture and buoyancy fluxes of the land, ocean, and atmosphere.

- 3) Explain the causes of shifting of wind and pressure belts across land, ocean, and atmosphere.
- 4) Understand and differentiate the energy sources and mechanisms in tropics versus mid-latitudes.

MOA 303 *Urban Environment*

After completing the course, the students will be able to:

- 1) Define the city, urban, urbanized and the concepts of environment.
- 2) Discuss the relationship between elements of the process of urbanization, for instance, management, population, production and emplacement.
- 3) Explain the characteristics of environment and urbanization internationally and in India.
- 4) Understand and offer meaningful solutions for a sustainable urban environment.

MOA 304 *Statistical Methods in Atmospheric Sciences*

After completing the course, the students will be able to:

- 1) Understanding the elements and principles of statistical learning.
- 2) Ability to select the appropriate statistical learning tools to tackle atmospheric research problems.
- 3) Ability to apply methods of statistical learning to atmospheric research.

- 4) Critical evaluation of the potential, but also of potential pitfalls and limitations of statistical learning approaches in atmospheric sciences.

MOA 305 *Lab 1: Environmental Simulations*

After completing the course, the students will be able to:

- 1) Categorize the application areas of modeling in Environmental Sciences and Engineering and define the fundamental concepts of modeling.
- 2) Define well-mixed systems, distinguish the fundamental components of these systems and formulate and solve models dealing with these systems.
- 3) Recognize regression models and apply them to data.
- 4) Define fundamentals of uncertainty analysis and apply them to models.

MOA 306 *Lab 2: Statistical Analysis*

After completing the course, the students will be able to:

- 1) Understand basic theoretical and applied principles of statistics needed to enter the job force.
- 2) Communicate key statistical concepts to non-statisticians.
- 3) Gain proficiency in using statistical software for data analysis.
- 4) Demonstrate the ability to summarize a technical report and/or statistical analysis and interpret results; also, show the ability for broader implication of application in the statistical field.

MOA 307 *Agricultural Meteorology*
(DE)

After completing the course, the students will be able to:

- 1) Discuss the relevance of soil characteristics and microclimate for agriculture in India
- 2) Explain about the various agroclimatic zones in India, and interpret the variability of climate in crop production.
- 3) Understand various instrumentation for use and application in agrometeorology
- 4) Gain the importance of crop weather models, interpret an important crop
- 5) weather models available, and be enabled to apply them for the Indian region.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF BEHAVIOURAL & ALLIED SCIENCES (AIBAS)

Master of Arts (M.A.)

Programme Outcome (PO)

PO1: To acquire the knowledge of various research methods and develop research aptitude for finding solutions to a specific issue.

PO2: To explain social, economic, historical, geographical, political, ideological and philosophical tradition of their respective subjects.

PO3: To develop as responsible citizens and professionals and to think and act for the solution of various issues prevailing in the human life to make this world a better place.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF BEHAVIOURAL & ALLIED SCIENCES
(AIBAS)**

M.A. Psychology

Duration – 2 Years Full Time

(Programme Structure)

Program Specific Outcomes (PSOs)

After completion of the course students will be able to:

Identify the various psychological schools of thought, contemporary perspectives and advancements in the field of cognitive science, personality and its socio-cultural constructs and developmental aspects.

Demonstrate breadth of knowledge of a variety of psychotherapy theories and in-depth knowledge of one chosen theory of intervention

Demonstrate knowledge of empirically supported clinical interventions and evidence ability to select treatments for individual clients

Develop competence to conduct empirical and qualitative researches.

Demonstrate knowledge of the basic and advanced skills required for counselling and to implement them in case analysis and therapeutic formulation.

Identify counselling needs for diverse population and plan and implement interventions strategies.

Attain life skills training for facilitating effective counselling process.

Develop proficiency in reading, writing and communicating in one foreign language of choice to be ready for cross cultural assignments.

Acquire the professional and personal communication skills for assessment, diagnosis and treatment at individual and group level

PROGRAMME STRUCTURE

AMITY INSTITUTE OF BEHAVIOURAL & ALLIED SCIENCES

(AIBAS)

M.A. Psychology

Semester I

Code	Course	Category	L	T	P/FW	Credits
MCP 101	History & Schools of Psychology	CC	2	1	-	3
MCP 102	Personality Theories	CC	2	1	-	3
MCP 103	Research Methodology	CC	2	1	-	3
MCP 104	Psychological Measurement and Statistics	CC	2	1	-	3
MCP 120	Practicum - I	CC	-	-	4	2
FLN111	French	VA	2	-	-	2
FLG111	German					
FLS111	Spanish					
FLC111	Chinese					
BCS111	Communication Skills - I					
BSS111	Behavioural Science - I (Self - Development and Interpersonal Skills)		1	-	-	1
	Anandam		-	-	-	2
DE Electives: Student has to select 9 credits from the list of following DE & NTCC electives						
MCP 105	Cognitive Psychology	DE	2	1	-	3
MCP 106	Neurological Basis of Behaviour	DE	2	1	-	3
MCP 130	Term Paper	DE			6	3
MCP 145	Seminar	DE	-	-	6	3
Total						31

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work

Semester II

Code	Course	Category	L	T	P/F W	Credits
MCP 201	Advanced Social Psychology	CC	2	1	-	3
MCP 202	Psychometrics	CC	2	1	-	3
MCP 203	Human Development in Social Context	CC	2	1	-	3
MCP 204	Indian Approaches to Psychology	CC	2	1		3
MCP 220	Practicum- II	CC	-	-	4	2
	Summer Internship*					
FLN211	French	VA	2	-	-	2
FLG211	German					
FLS211	Spanish					
FLC211	Chinese					
BCS211	Communication Skills - II		1	-	-	1
BSS211	Behavioural Science - II (Behavioural Communication and Relationship Management)		1	-	-	1
	Anandam		-	-	-	2
	Open Elective	OE	2	1		3
DE Electives: Student has to select 9 credits from the list of following DE electives						
MCP 207	Life Skills	DE	2	1	-	3
MCP 205	Experimental Design in Behavioural Research	DE	2	1	-	3
MCP 206	Advanced Counseling Skills	DE	2	1	-	3
MCP 240	Review Article	DE			6	3
	Summer Internship*					3*
Total						32

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work

*** Evaluation of Summer Internship will be done in Sem III**

Semester III

Code	Course	Category	L	T	P/FW	Credits
MCP 350	Summer Internship Evaluation	NTCC	-	-	-	3
MCP 320	Practicum- III	CC	-	-	4	2
FLF311	French	VA	2	-	-	2
FLG311	German					
FLS311	Spanish					
FLN111	Chinese					
BCS311	Communication Skills - III		1	-	-	1
BSS311	Behavioural Science - III (Leading Through Teams)		1	-	-	1
	Anandam			-	-	-
	Open Elective	OE			-	3
DE Electives: Student has to select 9 credits from the list of following DE electives						
MCP 309	Community Psychology	DE	2	1	-	3
MCP 310	Behavioural Problems of Children & Adolescents	DE	2	1	-	3
MCP 375	Guided Counseling	DE	-	-	-	3
MCP 365	Scientific Research Paper	DE				3
	Clinical Psychology (Specialization)					
MCP 301	Introduction to Clinical Psychology	CC	2	1	-	3
MCP 302	Psychopathology	CC	2	1	-	3
MCP 303	Psychotherapy	CC	2	1	-	3
MCP 304	Clinical Psychology: Positive Psychology Approach	CC	1	1	-	3
	Counseling Psychology (Specialization)					
MCP 305	Methods and Approaches in Counseling	CC	2	1	-	3
MCP 306	Assessment and Research in Counseling	CC	2	1	-	3
MCP 307	Areas and Related Disciplines of Counseling	CC	2	1	-	3
MCP 308	Counseling for Diverse & Vulnerable Population	CC	1	1	-	3
	Total					35

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work

Semester IV

Code	Course	Category	L	T	P/FW	Credits
	Clinical Psychology (Specialization)					
MCP 481	Conduction of Supervised Workshops	FW	-	-	-	4
MCP 482	Internship in Clinical setting	FW	-	-	-	5
MCP 483	Internship in NGO/ rehabilitation center	FW	-	-	-	5
MCP 455	Dissertation	FW	-	-	-	6
	Total					20
	Counseling Psychology (Specialization)					
MCP 484	Conduction of Supervised Workshops	FW	-	-	-	4
MCP 485	Internship in Community setting	FW	-	-	-	5
MCP 486	Internship in NGO/ rehabilitation center	FW	-	-	-	5
MCP 455	Dissertation	FW	-	-	-	6
	Total					20

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work

COURSE OUTCOMES

AMITY INSTITUTE OF BEHAVIOURAL & ALLIED SCIENCES (AIBAS)

M.A. Psychology

MCP 101 HISTORY AND SCHOOLS OF PSYCHOLOGY

After the successful completion of the course the students will be able to:

1. You will be able to describe various schools of psychology and their contribution in evolving psychology as a science.
2. You will be able to explain strength and weaknesses of work done by each school and their contributors
3. You will be able to compare the work of different schools and their contributors.
4. You will be able to apply the psychological theories to distant problems of daily life

MCP 102 PERSONALITY THEORIES

At the successful completion of this course you (the student) should be able to:

1. Demonstrate in-depth knowledge in the major concepts and theories of personality.
2. Analyse socio cultural influences on the personality development.
3. Compare and contrast traditional biological / evolutionary approaches to the human subject with modern social psychological approaches of personality.
4. Critically examine and reflect on personality problems with reference to diverse socio cultural contexts.

MCP 103 RESEARCH METHODOLOGY

At the successful completion of this course you (the student) should be able to:

1. Develop conceptual clarity of the research methodology and researches in applied fields of psychology and its significance and importance to the students.
2. Learn different techniques of sample selection
3. Learn to process data through parametric and non parametric statistical analysis of quantitative and qualitative data and various research designs.
4. Selection of statistical methods, Interpretation of the data.
5. Writing a Research Report.

MCP 104 PSYCHOLOGICAL MEASUREMENT AND STATISTICS

1. Summarize the main reasons for studying Statistics in Psychology.
2. Gain a basic awareness of the underlying concepts regarding Statistics.
3. Understand the meaning, importance and limitation of statistics.
4. Learn to calculate and use descriptive
5. Learn to calculate and use parametric statistics: inferential statistics.
6. Learn to calculate and use non parametric statistics: inferential statistics
7. Use of SPSS

MCP 105 COGNITIVE PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Understand and differentiate concepts of formation, attention, and perception
2. Develop the cognitive and problem-solving skills in themselves and others.
3. Understand the concept of learning, language, and memory
4. Apply the knowledge of intelligence, language and decision making

MCP 106 NEUROLOGICAL BASIS OF BEHAVIOR

At the successful completion of this course you (the student) should be able to:

1. Demonstrate the broad anatomy of the human brain, especially the cerebral cortex.
2. Establish the relationship between brain structure/function and several psychological processes/ neurological and mental illness.
3. Explain the neuro chemistry and the function of hormones.
4. Identify and recognize the cognitive neuroscience techniques.
5. Link the biological factors underlying human behavior and different neurological disorders

MCP 201 ADVANCED SOCIAL PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Display basic knowledge of the major concepts, and chart the progression of theoretical perspectives, empirical findings, and historical trends in Social Psychology.
2. Describe, explain and evaluate research studies examining core areas of social psychology.
3. Develop a critical understanding of the major methods of research in this area.
4. Use critical and creative thinking, sceptical inquiry, and the scientific approach to solve problems related to social behaviour, socialization, group processes (both inter and intra group), and interpersonal processes (viz. helping behaviour and interpersonal affiliation and attraction, social influence).
5. Value empirical evidence; act ethically and professionally; and analyse the complexity of socio-cultural and international diversity.
6. Apply psychological concepts, theories, and research findings to solve problems in everyday life and in society.

MCP 202 PSYCHOMETRICS

At the successful completion of this course you (the student) should be able to:

1. Understand the historical perspectives & ethical consideration concerning the nature meaning and types of psychological assessment.
2. Develop the ability to select and evaluate tests for specific purposes, populations, situations, and settings.
3. Gain an insight about standardization of psychological tests.
4. Gain an understanding about basic procedures of using qualitative methodology
5. Develop an understanding about the different tyoes of non-parametric tests and their assumptions.

MCP 203 HUMAN DEVELOPMENT IN SOCIAL CONTEXT

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge of the major theoretical frameworks in study of human development.
2. Identify the dynamics of development in the early and middle childhood, adolescence, adulthood and old age.
3. To contextualize the developmental concerns in the social context of contemporary India.

MCP 204 INDIAN APPROACHES TO PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Investigate scope and research methods of study of Indian Psychology.
2. Analyse, evaluate, and compare major theories and concept in Indian psychology and relate new experimental results to these theories.

3. Explain some of the broader implications of Indian Psychology for mind body complex.
4. Understand various dimensions of self and Personality.
5. Describe and evaluate emotion and cognition in Indian context

MCP 205 EXPERIMENTAL DESIGN IN BEHAVIORAL RESEARCH

1. Demonstrate in-depth knowledge in the major concepts and theories of the research designs.
2. Analyse and articulate through extensive practice the employment of research designs
3. Compare and contrast different types of research designs in psychology
4. Understand basic terminology associated with research
5. examine and reflect different research designs and statistics as per the usage in psychology

MCP 206 ADVANCED COUNSELING SKILLS

At the successful completion of this course you (the student) should be able to:

1. Describe basic concept of counselling in psychology.
2. Become aware of major counselling skills in counselling psychology.
3. Develop real life understanding of counselling skills in various setting of counselling in psychology..

MCP 207 LIFE SKILLS

1. This course will enable students to understand core life skills, its concept, process and practice and how they facilitated the counseling process if they are mastered.
2. Demonstrate knowledge of the key theoretical concepts of life skills

3. The students will acquire the attitudes, knowledge, and skills that contribute to effective learning in across the life span.
4. The student will understand the relationship of academics to the world of work and to life at home and in the community.
5. Examine various issues of life (e.g.,School related problems, Academic, Study, caree, personal & family problems).
6. Assess to different life skill through different kind of activities.

MCP 301 INTRODUCTION TO CLINICAL PSYCHOLOGY

At the successful completion of this course, the student should be able to:

1. Describe historical perspective and professional identity in the area of clinical psychology.
2. Understand various approaches related to clinical psychology.
3. Apply the knowledge to improve the biological, psychological, social, emotional aspect of human functioning.
4. Understand the application of various methods and techniques required for assessing psychiatric disorders.

MCP 302 PSYCHOPATHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Describe various types classification systems of disorders
2. Understand various types of psychopathologies and their diagnosis
3. Apply the knowledge to improve mental health of individuals.

MCP 303 PSYCHOTHERAPY

At the successful completion of this course the student should be able to:

1. Develop an appreciation for the importance of psychotherapy research
2. Describe different psychotherapeutic intervention techniques
3. Understand the role of psychotherapist in different intervention techniques.
4. Develop skills and knowledge required to work with clients in order to carry out psychological interventions

MCP 304 CLINICAL PSYCHOLOGY: POSITIVE PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Explore the development of positive psychology and Indian and Western approach to it.
2. Evaluate the role of positive psychology models in quality of life and wellbeing of clients.
3. Using elements of positivity in counselling
4. Studying role of positive relationships and apply apply positive psychological approach in clinical set up.
5. Applications of Positive Psychology in Counselling diverse populations

MCP 305 METHODS AND APPROACHES IN COUNSELLING

At the successful completion of this course you (the student) should be able to:

1. Explore various approaches, methods and techniques in counselling.
2. Apply the knowledge of various approaches using different methods and techniques.
3. Evaluate the application of various method and techniques in different situations.

MCP 306 ASSESSMENT AND RESEARCH IN COUNSELLING

At the successful completion of this course you (the student) should be able to:

1. Understanding assessment, testing and research as important tools in counselling psychology.

2. Identify and learn various research methods applied in counselling psychology and Demonstrate awareness of major methods of research and analysis of data in counseling psychology.
3. Understand problems of test development and research in India and future practice.

MCP 307 AREAS AND RELATED DISCIPLINE IN COUNSELLING

At the successful completion of this course you (the student) should be able to:

1. Describe various areas of counseling
2. To gain understanding of special counselling applications
3. Understanding the purpose and approach of counselling in different areas

MCP 308 COUNSELLING FOR DIVERSE AND VULNERABLE POPULATION

At the successful completion of this course you (the student) should be able to:

1. Explore the concept of diverse and vulnerable population
2. Identify the counselling needs of diverse and vulnerable population.
3. Apply counselling skills and theories to such cases.

MCP 309 COMMUNITY PSYCHOLOGY

1. Explore history of community psychology and various models of mental health services.
2. Identify the role of various models, concept of community-based rehabilitation, and issues and challenges of different groups of community.
3. Analyse various models of community mental health services, community-based rehabilitation and issues of different communities of society.

MCP 310 BEHAVIORAL PROBLEMS OF CHILDREN AND ADOLESCENTS

At the successful completion of this course you (the student) should be able to:

1. Develop theoretical perspective on problem behaviour of children and adolescents.

2. Identify problem behaviour of children and adolescents and develop an appropriate evidence-based intervention for it.
3. Demonstrate specific skills and strategies useful for working with issues related to abuse.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY INSTITUTE OF BEHAVIOURAL & ALLIED SCIENCES (AIBAS)

Bachelor of Arts (B.A.)

Programme Outcome (PO)

PO1: To acquire capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems.

PO2: To apply analytical thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, and beliefs on the basis of empirical evidence.

PO3: To develop a sense of inquiry so as to ask relevant or appropriate questions related to problem solving, defining problems, formulating hypotheses, testing hypotheses.

PO4: To get acquainted with social transactions, social relations, social formations, social control, social values and culture.

PO5: To realize human values and acquire critical temper and creative ability.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY INSTITUTE OF BEHAVIOURAL & ALLIED SCIENCES
(AIBAS)**

B.A. (Hons.) Applied Psychology

Duration – 3 Years Full Time

(Programme Structure)

Program Specific Outcomes (PSOs)

After completion of the course students will be able to:

1. Identify the various psychological schools of thought, and compare and contrast them.
2. Demonstrate scientific approach to the study of mind, brain, behavior and experience and the complex way they work together.
3. Develop and demonstrate statistical & scientific research-oriented intellect and skills in research and projects.
4. Apply knowledge of clinical and health psychology in classification and treatment of behavioral issues.
5. Demonstrate the ability to use psychological knowledge, skills, and values in occupational pursuits in a variety of settings that meet personal goals and societal needs.
6. Develop and demonstrate improved psycho-social and emotional skills to deal effectively in personal and professional lives and remain mentally healthy.
7. Develop proficiency in reading, writing and communicating in one foreign language of choice to be ready for cross cultural assignments.
8. Acquire the professional and personal communication skills for assessment, diagnosis and treatment at individual and group level
9. Analyze the complexities of human behavior and how these dynamics impact life in relationships, groups, organizational and cultural settings.

PROGRAMME STRUCTURE

AMITY INSTITUTE OF BEHAVIOURAL & ALLIED SCIENCES

(AIBAS)

B.A. (Hons.) Applied Psychology

Semester -
I

Code	Course	Category	L	T	P/FW	Credits
PSY 101	Introduction to Psychology	CC	2	1	-	3
PSY 102	Applied Social Psychology	CC	2	1	-	3
PSY 103	Experimental Psychology	CC	2	1	-	3
PSY 104	Biological Basis of Behavior	CC	2	1	-	3
PSY 120	Practicum I	CC	-	-	4	2
FLN 101	French	VA	2	-	-	2
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
BCS 101	English					
BSS 103	Behavioural Science-I (Understanding Self for Effectiveness)					
	Anandam					2
Domain elective: Student has to select 3 credits from the list of following domain electives						
PSY 105	System & Approaches		2	1		3
PSY 106	Psychology of Ageing		2	1		3
	TOTAL					23

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC - Non Teaching Credit Course

Semester - II

Code	Course	Category	L	T	P/FW	Credits
PSY 201	Life Span Development	CC	2	1	-	3
PSY 202	Basic Cognitive Processes	CC	2	1	-	3
PSY 203	Statistics in Psychology	CC	2	1	-	3
PSY 204	Gender Dynamics and Gender Studies	CC	2	1	-	3
PSY 220	Practicum II	CC	-	-	4	2
EVS 001	Environmental Studies	CC	4			4
FLN 201	French	VA	2	-	-	2
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
BCS 201	English					
BSS 203	Behavioral Science-II (Problem solving and creative thinking)		1	-	-	1
	Anandam					2
		OE				3
NTCC: Students will be earning 2 credits from this course (Compulsory)						
PSY 230	Term Paper	NTCC	-	-	-	1
PSY 235	Reading in Psychology	NTCC	-	-	-	1
	TOTAL					29

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC - Non Teaching Credit Course

Semester - III

Code	Course	Category	L	T	P/FW	Credits
PSY 301	Psychopathology	CC	2	1	-	3
PSY 302	Counseling Psychology	CC	2	1	-	3
PSY 303	Psychometric Testing and Assessment	CC	2	1	-	3
PSY 304	Theories of Personality	CC	2	1	-	3
PSY 320	Practicum III	CC	-	-	4	2
FLN 301	French	VA	2	-	-	2
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
BCS 301	Communication Skills -I		1	-	-	1
BSS 303	Behavioral Science-III (Interpersonal Communication & Relationship Management)		1	-	-	1
	Anandam					2
		OE				3
Domain elective: Student has to select 3 credits from the list of following domain electives						
PSY 305	Science of Happiness	DE	2	1	-	3
PSY 306	Community Psychology	DE	2	1	-	3
NTCC: Students will be earning 2 credits from this course (Compulsory)						
PSY 335	Reading in Psychology	NTCC	-	-	-	1
PSY 340	Article/ Feature Writing	NTCC	-	-	-	1
	TOTAL					28
Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC - Non Teaching Credit Course						

Semester - IV

Code	Course	Category	L	T	P/FW	Credits
PSY 401	Educational Psychology	CC	2	1	-	3
PSY 402	Defence Psychology	CC	2	1	-	3
PSY 403	Research methodology	CC	2	1	-	3
PSY 404	Clinical Psychology	CC	2	1	-	3
PSY 420	Practicum IV	CC	-	-	4	2
FLN 401	French	VA	2	-	-	2
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
BCS 401	Communication Skills-II		1	-	-	1
BSS 403	Behavioral Science-IV (Group Dynamics and Team Building)		1	-	-	1
	Anandam					2
		OE				3
Domain elective: Student has to select 3 credits from the list of following domain electives						
PSY 405	Psychology of Peace	DE	2	1		3
PSY 406	School Counseling	DE	2	1		3
NTCC: Students will be earning 2 credits from this course (Compulsory)						
PSY 460	Project (with Presentation & Evaluation)	NTCC	-	-	-	2
	TOTAL					28
	Summer internship to be evaluated in V sem					-2
Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC - Non Teaching Credit Course						

Semester - V

Code	Course	Category	L	T	P/FW	Credits
PSY 501	Indian Psychology and Logic	CC	2	1	-	3
PSY 502	Forensic Psychology	CC	2	1	-	3
PSY 503	Organizational Psychology	CC	2	1	-	3
PSY 504	Health Psychology	CC	2	1	-	3
PSY 520	Practicum V	CC	-	-	4	2
FLN 501	French	VA	2	-	-	2
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
BCS 501	Communication Skills-III					
BSS 503	Behavioral Science-V (Individual, Society and Nation)		1	-	-	1
		OE				3
DE Electives: Student has to select 3 credits from the list of following DE electives						
PSY 505	Human Rights, Values and Ethics	DE	2	1	-	3
PSY 506	Crime and Delinquency	DE	2	1	-	3
NTCC: Students will be earning 5 credits from this course (Compulsory)						
PSY 565	Scientific Research Paper	NTCC	-	-	-	1
PSY 555	Dissertation - I	NTCC	-	-	-	2
PSY 550	Summer Internship evaluation					2
	TOTAL					29
Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC - Non Teaching Credit Course						

Semester - VI

Code	Course	Category	L	T	P/FW	Credits
PSY 601	Sports Psychology	CC	2	1	-	3
PSY 602	Positive Psychology	CC	2	1	-	3
PSY 603	Human Resource Management	CC	2	1	-	3
PSY 604	Environmental Psychology	CC	2	1	-	3
PSY 620	Practicum VI	CC	-	-	4	2
NTCC: Students will be earning 7 credits from this course (Compulsory)						
PSY 645	Seminar	NTCC	-	-	-	1
PSY 655	Dissertation - II	CC	-	-	-	6
	TOTAL					21

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC - Non Teaching Credit Course

COURSE OUTCOMES

AMITY INSTITUTE OF BEHAVIOURAL & ALLIED SCIENCES (AIBAS) BA (H). APPLIED PSYCHOLOGY

PSY 101 INTRODUCTION TO PSYCHOLOGY

1. Investigate the meaning and nature, historical background and scope of psychology.
2. Examine and compare the works of major psychologists, their ideas, theories and schools with which they are associated.
3. Apply different methods of psychology for projects and research
4. Demonstrate awareness of various states of consciousness and stages of sleep.
5. Analyse emotions, feelings, motivations and personality types.

PSY 102 APPLIED SOCIAL PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Display basic knowledge of the major concepts, and chart the progression of theoretical perspectives, empirical findings, and historical trends in Social Psychology .
2. Describe, explain and evaluate research studies examining core areas of social psychology.
3. Develop a critical understanding of the major methods of research in this area.
4. Use critical and creative thinking, sceptical inquiry, and the scientific approach to solve problems related to social behaviour, socialization, group processes (both inter and

intra group), and interpersonal processes (viz. helping behaviour and interpersonal affiliation and attraction, social influence).

5. Value empirical evidence; act ethically and professionally; and analyse the complexity of socio-cultural and international diversity.
6. Apply psychological concepts, theories, and research findings to solve problems in everyday life and in society.

PSY 103 EXPERIMENTAL PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Gain a basic awareness of the underlying concepts regarding Experimental psychology.
2. Identify and describe the basic skills and strategies of formulating a research problem and hypothesis and importance of literature review.
3. Describe the basic concepts and phenomena of learning & memory.
4. Develop a comprehension of the nature, causes and theories of forgetting.
5. Ascertain some of the key issues (e.g., practical, ethical) involved in psychophysics.

PSY 104 BIOLOGICAL BASIS OF BEHAVIOR

At the successful completion of this course you (the student) should be able to:

1. Identify various components of nervous system and their function.
2. Identify and classify various structures of nervous system and techniques to study them.
3. Analyse various psychological processes.
4. Relate psychological processes with physiological basis (like memory, learning, motivation and emotion)⁹

5. To study Homeostasis, Consciousness and its states, Circadian Rhythm, Dreams, and various disorders of sleep

PSY 105 SYSTEMS AND APPROACHES

At the successful completion of this course you (the student) should be able to:

1. Describe basic concepts of psychology and it as a science.
2. Understand and apply various concepts related to structuralism and functionalism.
3. Understand and apply various concepts related to psychoanalysis.
4. Understand and apply various concepts related to behaviourism.
5. Understand and apply various concepts related to phenomenology and gestalt.

PSY106 PSYCHOLOGY OF AGEING

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge of the key theoretical concepts related to ageing. Obtain and evaluate original research material in the area of aging.
2. Examine the changes in physical, cognitive and psychosocial development as people age.
3. Identify major illnesses and develop the skills of accuracy and precision in assessment, diagnosis & planning of health needs and care of older adults.
4. Examine various issues in ageing (e.g., transition to retirement, health-related changes, optimal ageing factors, adaptation to changes in family patterns, loss of spouse etc.), as well as multiple influences on the experience of ageing (e.g., caregiving, societal policies, attitudes toward elderly) highlighting aspects which facilitate successful / positive ageing.
5. Analyse and critically evaluate ethical, legal and financial issues of the elderly.

PSY 201 LIFE SPAN DEVELOPMENT

1. Identify major theoretical perspectives in developmental psychology.
2. Demonstrate knowledge of physical, cognitive, affective, moral, social and neural development across the lifespan.
3. Articulate various developmental terms and concepts.
4. Apply developmental concepts and theories to everyday relationships and situations.

PSY 202 BASIC COGNITIVE PROCESSES

1. Describe historical perspective and professional identity of cognitive psychology.
2. Analyse, evaluate, and compare major theories in cognitive psychology and relate new experimental results to these theories.
3. Explain some of the broader implications of cognitive research for society.

PSY 203 STATISTICS IN PSYCHOLOGY

1. Summarize the main reasons for studying Statistics in Psychology.
2. Gain a basic awareness of the underlying concepts regarding Statistics.
3. Understand the meaning, importance and limitation of statistics.
4. Learn to calculate and use descriptive
5. Learn to calculate and use parametric statistics: inferential statistics.
6. Learn to calculate and use non parametric statistics: inferential statistics
7. Use of SPSS

PSY 204 GENDER DYNAMICS AND GENDER STUDIES

1. Demonstrate in-depth knowledge in the major concepts and theories of the psychology of gender.
2. Analyze and articulate through extensive reading and writing the media, institutional and sociocultural influences on the psychological development of gender role, identity, beliefs, and behaviors.
3. Compare and contrast traditional biological / evolutionary approaches to the human subject with modern social psychological approaches
4. Critically examine and reflect on gender issues with reference to transgenders and diverse sociocultural contexts.
5. Evaluate scientific research on gender and synthesize their implications as explained by psychology

PSY 301 PSYCHOPATHOLOGY

1. At the successful completion of this course you (the student) should be able to:
2. Describe various types classification systems of disorders
3. Understand various types of psychopathologies and their diagnosis
4. Apply the knowledge to improve mental health of individuals.

PSY 302 COUNSELLING PSYCHOLOGY

1. At the successful completion of this course you (the student) should be able to:
2. Describe various types classification systems of disorders
3. Understand various types of psychopathologies and their diagnosis
4. Apply the knowledge to improve mental health of individuals.

PSY 303 PSYCHOMETRIC TESTING ASSESSMENT

At the successful completion of this course, you (the student) should be able to:

1. Develop the understanding about the background of psychometric testing
2. Develop the knowledge related to different levels of measurements and techniques of attitude measurements.
3. Develop an insight about the different types of reliability and validity of a psychometric test and the techniques to improve them.
4. Develop an insight about the different aspects of how to construct a psychological test.
5. Demonstrate skills in the administration and scoring of intelligence, personality, aptitude, achievement, interest, attitude/value in diverse fields.

PSY 304 THEORIES OF PERSONALITY

At the successful completion of this course you (the student) should be able to:

1. Demonstrate in-depth knowledge in the major concepts and theories of personality.
2. Investigate the meaning and nature, historical background and determinants of personality
3. Analyse trait, type theory and socio cultural influences on the personality development.
4. Compare and contrast analytical theory, traditional biological / evolutionary approaches to the human subject with modern social psychological approaches of personality.
5. Critically examine and reflect on personality problems with reference to diverse socio cultural contexts.

PSY 305 SCIENCE OF HAPPINESS

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge about the theory and research related to happiness.
2. Identify a wide range of factors that promote and affect happiness.
3. Studying the physical, mental and social aspect of happiness. Also reflecting on the religious and spiritual aspect of happiness.

PSY 306 COMMUNITY PSYCHOLOGY

1. Explore history of community psychology and various models of mental health services.
2. Identify the role of various models, concept of community-based rehabilitation, and issues and challenges of different groups of community.
3. Analyse various models of community mental health services, community-based rehabilitation and issues of different communities of society.

PSY 401 EDUCATIONAL PSYCHOLOGY

1. Investigate role of individual differences, personality, creativity, needs of exceptional children in relation education.
2. Identify and describe role various factors that contribute in better education of pupil.
3. Apply various concepts and principles of psychology in the field of education.
4. Relate the concepts of psychology in learning process of pupils of difference age group.

PSY 402 DEFENCE PSYCHOLOGY

1. Demonstrate knowledge of the major theoretical frameworks in study of Forensic psychology.
2. Identify the dynamics of Psychology of Law and Crime.

3. To contextualize the importance of understanding psychology of violence and significance of correctional psychology.

PSY 403 RESEARCH METHODOLOGY

- i. Develop a conceptual understanding about the concepts related to scientific research such as problem, hypothesis and variables.
- ii. Identify different techniques to conduct research, to develop research tools, to collect and analyze data.
- iii. Gain an insight about different sampling types, techniques and errors
- iv. Understand various methods to collect data and research designs
- v. Demonstrate an increased ability to prepare a scientific report & acquire knowledge about ethical aspect.

PSY 404 CLINICAL PSYCHOLOGY

1. Describe historical perspective and professional identity of clinical psychology.
2. Understand various approaches in clinical psychology.
3. Apply the knowledge to improve the biological, psychological, social, emotional aspect of human functioning.
4. Evaluate the application of various methods and techniques of assessing psychiatric disorders.
5. Demonstrate an increased ability to participate in the field of clinical psychology as a practitioner.

PSY 405 PSYCHOLOGY OF PEACE

1. Demonstrate knowledge about the field of psychology of peace.

2. Compare and contrast the major theory of peace buildings.
3. Recognize career options for psychology of peace.
4. Analyse and critically evaluate the major issues related to peace building.
5. Demonstrate awareness of the peace education and peace buildings.

PSY 406 SCHOOL COUNSELING

1. Demonstrate knowledge of the key theoretical concepts related to School Counseling
2. The students will acquire the attitudes, knowledge, and skills that contribute to effective learning in school and across the life span.
3. The student will understand the relationship of academics to the world of work and to life at home and in the community.
4. Examine various issues of school Counseling (e.g., School related problems, Academic, Study, career, personal & family problems).
5. Analyse and critically evaluate ethical, legal and personal issues of the adolescents.

PSY 501 INDIAN PSYCHOLOGY AND LOGIC

At the successful completion of this course you (the student) should be able to:

1. Investigate the meaning and nature, historical background and scope of Indian psychology.
2. Examine and compare the works of major psychologists and schools of Indian Psychology.
3. Investigate the meaning of Yoga Psychology and different levels of consciousness.
4. Demonstrate the ability to understand logical reasoning.
5. Analyse argument, truth function and testing validity of an argument.
6. Explain some of the broader implications logical of concepts.

PSY 502 CRIME AND DELINQUENCY

1. Explore importance of criminology.
2. Identify the causes of criminal behaviour.
3. Analyse significance of criminal profiling to mitigate crime in society.

PSY 503 ORGANISATIONAL PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

6. Demonstrate knowledge about the field of organisational psychology and its functions.
7. Compare and contrast the major organisational functions.
8. Recognize career options for organisational psychologist.
9. Analyse and critically evaluate the ethical and legal issues in organisational psychology
10. Demonstrate awareness of the complex role organisational psychology.

PSY 504 HEALTH PSYCHOLOGY

1. Describe basic concepts and key theories and perspectives of health psychology
2. Understand various causes of illnesses.
3. Apply the knowledge to improve coping mechanisms and ways to maintain good health of individuals.

PSY 506 FORENSIC PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

4. Demonstrate knowledge of the major theoretical frameworks in study of Forensic psychology.
5. Identify the dynamics of Psychology of Law and Crime.
6. To contextualize the importance of understanding psychology of violence and significance of correctional psychology.

PSY 601 SPORT PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Describe historical perspective and recent historical perspective of sport psychology.
2. Analyse, evaluate, and compare major theories in sport psychology. and relate new experimental results to these theories.
3. Explain some of the broader implications of sport psychology for individual and team sports

PSY 602 POSITIVE PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge about the theory and research related to positive psychology.
2. Identify a wide range of character strengths and virtues that promote creativity, cognitive flexibility and a sense of purpose.
3. Apply positive psychology interventions in order to maximize one's potential and cultivate positive relationships for enhancement of self and others

PSY 603 HUMAN RESOURCE MANAGEMENT

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge about the field of Human Resource Management and its functions.
2. Compare and contrast the major organisational functions.
3. Recognize career options in Human Resource Management.
4. Analyse and critically evaluate the ethical and legal issues in Human Resource Management
5. Demonstrate awareness of the complex role Human Resource Management.

PSY 604 ENVIRONMENTAL PSYCHOLOGY

At the successful completion of this course you (the student) should be able to:

1. Identify major theoretical perspectives in environmental psychology.
2. Demonstrate knowledge of cognitive and affective aspects of environment
3. To understand the environmental stressors.
4. Apply psychological concepts and theories to everyday relationships between human and environment and to manage environmental issues.



AMITY UNIVERSITY
— R A J A S T H A N —

**Amity Institute of Clinical Psychology
(AICP)**

M.Phil. In Clinical Psychology

Program Code:

12109

Programme Structure

Program Specific Outcomes (PSOs)

The program is developed as a rigorous two year program with extensive theoretical inputs and widespread clinical experience to acquire the necessary skills in the area of clinical psychology.

By the end of it the trainee should be able to:

1. Diagnose mental health problems.
2. Conceptualize specific adult and child mental health problems within a psychological framework, giving due consideration to psychosocial/ contextual factors, and carryout relevant treatment/management.
3. Apply psychological principles and techniques in rehabilitating persons with mental health problems and disabilities.
4. Work with the psychosocial dimensions of physical diseases, formulate and undertake focused/targeted psychosocial interventions.
5. Work with community to promote health, quality-of-life and psycho-logical well-being.
6. Undertake research in the areas of clinical psychology such as, mental health/illness, physical health/diseases and relevant societal issues viz. misconception, stigma, discrimination, social tension, gender construction, lifestyle etc.
7. Undertake responsibilities connected with teaching and training in core and allied areas of Clinical Psychology.
8. Undertake administrative and supervisory/decision-making responsibilities in mental health area.
9. Provide expert testimony in the court of law assuming different roles.

PROGRAMME STRUCTURE

Amity Institute of Clinical Psychology (AICP)

M.Phil. In Clinical Psychology

Part - I (I-Year)

Code	Course	Category	L	T	P/FW	Credits
HCP 101	Psychosocial Foundation of Behavior and Psychopathology	CC	3	3	-	6
HCP 102	Statistics and Research Methodology	CC	3	3	0	6
HCP 103	Psychiatry	CC	3	3	0	6
HCP 155	Psychological Assessments and Viva Voce	CC	0	3	3	6
HCP 160	Submission of Five Cases of Full-length Psychodiagnostic Report	CC	0	3	3	6
Total			9	15	6	30

Part - II (II-Year)

Code	Course	Category	L	T	P/FW	Credits
HCP 201	Biological Foundation of Behavior	CC	3	3	0	6
HCP 202	Psychotherapy and Counselling	CC	3	3	0	6
HCP 203	Behavioral Medicine	CC	3	3	-	6
HCP 255	Psychological Therapies & Viva Voce	CC	1	3	3	6
HCP 256	Submission of Five Fully Worked-out Psychotherapy Report	CC	0	3	3	6
HCP 260	Dissertation	CC	0	0	12	6
Total			10	15	8	30

COURSE OUTCOMES

Amity Institute of Clinical Psychology (AICP)

M.Phil. In Clinical Psychology

(RECOGNIZED BY REHABILITATION COUNCIL OF INDIA, GOVT. OF INDIA)

HCP-101: PSYCHOSOCIAL FOUNDATION OF BEHAVIOUR

At the successful completion of this course the trainee is expected to perform the following functions:

- Demonstrate/ describe a working knowledge of the theoretical application of the psychosocial model to various disorders.
- Demonstrate an awareness of the range of mental health problems with which clients can present to services, as well as their psychosocial/contextual mediation.
- Carry out the clinical work up of clients with mental health problems and build psychosocial formulations and interventions, drawing on their knowledge of psychosocial models and their strengths and weaknesses.
- Apply and integrate alternative or complementary theoretical frameworks, for example, biological and/or religious perspectives, sociocultural beliefs and practices etc. in overall management of mental health problems.

HCP 102: STATISTICS AND RESEARCH METHODOLOGY

At the successful completion of this course the trainee is expected to perform the following functions:

- Understand the empirical meaning of parameters in statistical models
- Understand experimental design issues - control of unwanted variability, confounding and bias.
- Take account of relevant factors in deciding on appropriate methods and instruments to use in specific research projects.
- Understand the limitations and shortcomings of statistical models
- Apply relevant design/statistical concepts in their own particular research projects.
- Analyze data and interpret output in a scientifically meaningful way

- Generate hypothesis/hypotheses about behavior and prepare a research protocol outlining the methodology for an experiment/survey.
- Critically review the literature to appreciate the theoretical and methodological issues involved.

HCP 103: PSYCHIATRY

At the successful completion of this course the trainee is expected to perform the following functions:

- Demonstrate an understanding of a clinically significant behavioral and psychological syndrome, and differentiate between child and adult clinical features/presentation.
- Understand that in many ways the culture, biological, societal and familial practices shape the clinical presentation of mental disorders, and understand the role of developmental factors in adult psychopathology.
- Carryout the clinical work up, psychological assessment of clients presenting with the range of mental health problems and make clinical formulations/diagnosis drawing on their knowledge of a pertinent diagnostic criteria and phenomenology.
- Discuss various pharmacological agents that are used to treat common mental disorders and their mode of action.
- Assess the disability/dysfunctions and understand medico legal emergencies.

HCP 201: BIOLOGICAL FOUNDATION OF BEHAVIOUR

At the successful completion of this course the trainee is expected to perform the following functions:

- Describe and explain the nature and basic functions of the nervous system (brain, biochemical processes, and endocrine system) and its units.
- Discuss the principles of psychopharmacology and review the general role of neurotransmitters and neuromodulators in the brain.
- Describe what kinds of clinical symptoms are often associated with lesions of frontal, parietal, temporal and occipital lobes of the brain.
- Describe what kinds of neuropsychological deficits are often associated with lesions of frontal, parietal, temporal and occipital lobes of the brain, and carry out the indicated neuropsychological assessment employing any valid battery of tests.

HCP 202: PSYCHOTHERAPY AND COUNSELLING

At the successful completion of this course the trainee is expected to perform the following functions:

- Demonstrate an ability to provide a clear, coherent, and succinct account of patient's problems and to develop an appropriate treatment plan.
- Demonstrate a sense of working collaboratively on the problem and ability to foster an effective alliance.
- Carry out and use specialized assessments and interventions, drawing on their knowledge of pertinent outcome/evidence research.
- Demonstrate ability to link theory-practice and assimilate clinical, professional, academic and ethical knowledge in their role of a therapist.
- Present a critical analysis of intervention related research articles and propose their own methods/design of replicating such research.

HCP 203: BEHAVIOURAL MEDICINE

At the successful completion of this course the trainee is expected to perform the following functions:

- Appreciate the impact of psychological factors, psychosocial impact of an illness and psychosocial outcome on developing and surviving a systemic illness.
- Understand the importance of physician-patient relationships and communication in determining health outcomes.
- Understand of how basic principles of health psychology are applied in specific context of various health problems, and apply them with competence.
- Demonstrate the required sensitivity to issues of death and dying, breaking bad news, and end-of-life issues.
- Carry out specialized interventions during period of crisis, grief and bereavement.
- Understand, assimilate, apply and integrate newer evidence-based research findings in therapies, techniques and processes.
- Critically evaluate current health psychology/behavioral medicine research articles, and present improved design/methods of replicating such research.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF LANGUAGES (ASL)

Bachelor of Arts (B.A.)

Programme Outcome (PO)

PO1: To acquire capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems.

PO2: To apply analytical thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, and beliefs on the basis of empirical evidence.

PO3: To develop a sense of inquiry so as to ask relevant or appropriate questions related to problem solving, defining problems, formulating hypotheses, testing hypotheses.

PO4: To get acquainted with social transactions, social relations, social formations, social control, social values and culture.

PO5: To realize human values and acquire critical temper and creative ability.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF LANGUAGES
(ASL)**

Bachelor of Arts

English (Honors)

Programme Code: BEG

Duration – 3Years Full Time

Programme Structure

Credit Summery

Bachelor of Arts- English (Honors)						
CC	DE	VA	OE	NTCC	EVS	Total
09	3	4	0	7	0	23
09	3	4	3	7	4	30
09	3	4	3	8	0	27
09	3	4	3	9	0	28
09	3	4	3	12	0	31
06	3	0	0	9	0	18
51	18	20	12	52	4	157

Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective

Program Specific Outcomes (PSOs)

This Programme will provide students with the opportunity to develop the following competencies:	
Program Outcomes	On completion of this programme
1. Clearly express ideas orally and in writing	<ul style="list-style-type: none">• You will be able to exchange your views in seminars/conferences and even a part and parcel in writing the same as articles in journals
2. Demonstrate an understanding of, and appreciation of multicultural, including global perspectives	<ul style="list-style-type: none">• You will be having a clear concept of multicultural and global perspectives through reading all genres of broad literature range prescribed in your syllabus
3. Conduct research demonstrating information literacy	<ul style="list-style-type: none">• be acquainted with the research writing techniques• locate Citations and their techniques (APA/MLA)
4. Produce effective research papers and presentations	<ul style="list-style-type: none">• To produce your original writings as article/research papers for publications• You will be able to make and deliver presentations of the studied area
5. Appropriately apply skills and knowledge	<ul style="list-style-type: none">• You will be able to apply skills and knowledge attained from the classroom to your internship experience
6. Analyze broad range of literature(s)	<ul style="list-style-type: none">• To analyze wide range of written literature and language, recognizing their temporal, social, political, and artistic context.

Program Structure

AMITY SCHOOL OF LANGUAGES (ASL)

Bachelor of Arts - English (Honors)

First Semester

Code	Course	Category	L	T	P/FW	Credit
BEG101	History of English Literature	CC	3	0	0	3
BEG102	English Poetry from Chaucer to Blake	CC	3	0	0	3
BEG103	Drama from Elizabethan to Restoration Age	CC	3	0	0	3
Select any one of the DEs						
BEG104 BEG 105 BEG 106	Classical Literature in Translation American Short Fiction An Introduction to Folk Literature	DE	3	0	0	3
BEG150	Project Work	NTCC	0	0	5	5
AND001	Anandam	NTCC	0	0	2	2
BCS101	English	VA	1	0	0	1
BSS103	Behavioral Science-I Understanding Self for Effectiveness	VA	1	0	0	1
Foreign Language (Select any 1)		VA	2	0	0	2
FLN 101	French-1					
FLG 101	German-1					
FLS 101	Spanish-1					
FLC 101	Chinese-1					
Total Credits						23

Second Semester

Code	Course	Category	L	T	P/FW	Credit
BEG 201	History of English Language	CC	3	0	0	3
BEG201	English Poetry From Wordsworth to Tennyson	CC	3	0	0	3
BEG203	Modern Drama	CC	3	0	0	3
Choose any one of the DEs						
BEG204	Introduction to Linguistics	DE	3	0	0	3
BEG 205	Indian Short Fiction					
BEG 206	Tradition, Identity and Culture: Various Approaches					
AND002	Anandam	NTCC	0	0	2	2
BEG250	Project Work	NTCC	0	0	5	5
BCS 201	English	VA	1	0	0	1
BSS 203	Behavioral Science-II Understanding Self for Effectiveness	VA	1	0	0	1
EVS 001	Environmental Science	VA	4	0	0	4
Foreign Language (Select any 1)		VA	2	0	0	2
FLN 201	French-					
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
Open Elective			3			
Total Credits			30			

Third Semester

Code	Course	Category	L	T	P/FW	Credit	
BEG 301	20 th Century Indian English Writing	CC	3	0	0	3	
BEG302	English Novel	CC	3	0	0	3	
BEG303	Literary Criticism	CC	3	0	0	3	
BEG350	Project Work	NTCC	0	0	6	6	
AND003	Anandam	NTCC	0	0	2	2	
Choose any one of the Des							
BEG 305	Postcolonial Literature	DE	3	0	0	3	
BEG 306	British, American and Diaspora Writings						
BEG 307	The Folk and Modern Narratives						
BSS 303	Behavioral Science-III Interpersonal Communication and Relationship Management	VA	1	0	0	1	
BCS 301	Communication Skills	VA	1	0	0	1	
Foreign Language (Select any 1)		VA	2	0	0	2	
FLN 301	French-						
FLG 301	German						
FLS 301	Spanish						
FLC 301	Chinese						
Open Elective							3
Total Credits							27

Fourth Semester

Code	Course	Category	L	T	P/FW	Credit
BEG 401	Literary Criticism	CC	3	0	0	3
BEG402	Prose Down The Ages	CC	3	0	0	3
BEG403	20 th Century Indian English Novel	CC	3	0		3
Choose any one of the DEs						
BEG 404 BEG 405 BEG 406	Modern European Drama African American Writing Exploration of Folk Tradition and Conservation of Folklore	DE	3	0	0	3
BEG450	Project Work	NTCC	0	0	7	7
AND004	Anandam	NTCC	0	0	2	2
BSS 404	Behavioral Science-IV Group Dynamics and Team Building	VA	1	0	0	1
BCS 401	Communication Skills-II	VA	1	0	0	1
Foreign Language (Select any 1)		VA	2	0	0	2
FLN 401	French-					
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
Open Elective						3
Total Credits						28

Fifth Semester

Code	Course	Category	L	T	P/FW	Credit
BEG 501	Modern English Poetry	CC	3	0	0	3
BEG502	Contemporary Literature-1	CC	3	0	0	3
BEG503	Fiction: Science & Mystery Plays	CC	3	0		3
Choose any one of the Des						
BEG 504	Indian Women Writing	DE	0	0	3	3
BEG505	Women Writing in General					
BEG506	Dimensions of Folklore Studies					
BEG550	Summer Internship Project	NTCC	0	0	10	10
AND005	Anandam	NTCC	0	0	2	2
BSS 505	Behavioral Science-V Individual, Society and Nation	VA	1	0	0	1
BCS 501	Communication Skills-III	VA	1	0	0	1
Foreign Language (Select any 1)		VA	2	0	0	2
FLN 501	French-					
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
Open Elective						3
Total Credits						31

Sixth Semester

Code	Course	Category	L	T	P/FW	Credit
BEG 601	Linguistics	CC	3	0	0	3
BEG602	Contemporary Literature-II	CC	3	0	0	3
BEG603	Dissertation	NTCC	0	0	9	9
Choose any one of Des						
BEG604 BEG 605 BEG 606	American Literature Internship Training Project Writing	DE	0	0	3	3
Total Credits						
						18

COURSE OUTCOMES

AMITY SCHOOL OF LANGUAGES (ASL)

Bachelor of Arts - English (Honors)

BEG 101 – HISTORY OF ENGLISH LITERATURE

Upon successful completion of the course, the students will be able to:

Identify texts, its socio-political background, authors and genres of different ages and the development of literary traditions

Interpret and discuss key ideas, themes, and aesthetic modalities of different ages.

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.

Relate your knowledge of Socio-historical background on the classical texts of those times

Design and create texts/ posters for a variety of purposes and audiences, evaluating and assessing the importance of classical texts and the writers.

BEG 102 – ENGLISH POETRY FROM CHAUCER TO BLAKE

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the early literary traditions

Explore poetic and dramatic representations of Greek and Indian literature

Explain how the texts, ideas, themes and modalities arose within a given cultural or historic context.

Relate your knowledge of ancient texts and belief systems to enduring issues and values in contemporary societies, including your own.

BEG 103 – DRAMA FROM ELIZABETHAN TO RESTORATION AGE

Upon successful completion of the course, the students will be able to:

Identify the socio-political background of the dramatists, texts and the dramatic techniques.

Interpret and discuss the texts, themes, and the nuances of the writers.

Explain how the texts are exemplary of their own times, their ideas, and themes.

Relate the knowledge of tools and techniques of drama with the contemporary texts of their times.

Create term paper based on knowledge conferred on them

BEG 104 – CLASSICAL LITERATURE IN TRANSLATION (DE)

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the early literary traditions

Explore poetic and dramatic representations of Greek and Indian literature

Explain how the texts, ideas, themes and modalities arose within a given cultural or historic context.

Relate your knowledge of ancient texts and belief systems to enduring issues and values in contemporary societies, including your own.

BEG 106 – AN INTRODUCTION TO FOLK LITERATURE

Upon successful completion of the course, the students will be able to:

Identify texts, its socio-political background, authors and genres of different ages and the development of literary traditions

Interpret and discuss key ideas, themes, and aesthetic modalities of different ages.

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.

Relate your knowledge of Socio-historical background on the classical texts of those times

Design and create texts/ posters for a variety of purposes and audiences, evaluating and assessing the importance of classical texts and the writers.

BEG 150 – NTCC PROJECT ON THEATRE

Upon successful completion of the course, the students will be able to:

Identify the basic features of theatre performance.

Apply the knowledge of theatre performance.

Create a theatre performance from the original text and student participation.

BEG 201 – HISTORY OF ENGLISH LANGUAGE

Upon successful completion of the course, the students will be able to:

Identify the mechanism and reasons for loan words in English language.

Interpret and discuss the growth and development of English Language.

Explain how the structures of English Language were significant in different ages.

Relate the laws of English Language study in understanding the overall mechanism of the same.

Create term paper on the basis of usage of language in real life situations.

BEG 202 – ENGLISH POETRY FROM WORDSWORTH TO TENNYSON

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the literary traditions

Interpret and discuss key texts, ideas, themes, and emerging trends of the Victorian age modalities.

Explain how the texts, ideas, themes and modalities arose within a given cultural, historic and political context.

Relate your knowledge of poetry to the texts and authors read and interpret them in your own words

BEG 203 – MODERN DRAMA

Upon successful completion of the course, the students will be able to:

Identify texts, its socio-political background, authors and genres of the modern age and the flowering of drama in the Modern age.

Interpret and discuss key ideas, themes, and aesthetic modalities of the Modern Age in English literature.

Explain how the texts, ideas, themes, and modalities arose within cultural and historical contexts of the Modern Age.

Relate your knowledge of socio-historical background on the significant texts of the Modern Age.

Design and create texts/ posters for a variety of purposes and audiences, evaluating and assessing the importance of classical texts and the writers of the Modern drama.

BEG 204 – INTRODUCTION TO LINGUISTICS (DE)

Upon successful completion of the course, the students will be able to:

- Provide the basic knowledge of Linguistics
- Comprehend various aspects of languages
- Analyze nuances of vowel and consonant sounds
- Enables to speak with correct articulation

BEG 205 – INDIAN SHORT FICTION (DE)

Upon successful completion of the course, the students will be able to:

- Identify texts, its socio-political background, authors and genres of different ages and the development of literary traditions
- Interpret and discuss key ideas, themes, and aesthetic modalities of different ages.
- Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.
- Relate your knowledge of Socio-historical background on the classical texts of those times
- Design and create texts/ posters for a variety of purposes and audiences, evaluating and assessing the importance of classical texts and the writers.

BEG 206 – TRADITION, IDENTITY AND CULTURE (DE)

Upon successful completion of the course, the students will be able to:

- Enables the learners to understand what tradition and relationship with Identity.
- Discusses the genres of Oral Tradition in detail.
- Helps to identify and classify aspects of performance in tradition i.e. music, dance, theatre, and games; and classify knowledge-based tradition.
- Enables the learners to identify the social and traditional context of folklore.
- Aims to Identify different types of folk genres and list out the functions of folklore.

BEG 250 – NTCC PROJECT ON SCRIPT WRITING

Upon successful completion of the course, the students will be able to:

Identify the basic features of script writing.

Apply the knowledge of script writing

Create a script from the original text to be used for dramatic performance

BEG 301 –TWENTIETH CENTURY WRITING IN ENGLISH

Upon successful completion of the course, the students will be able to:

Identify the twentieth century Indian writings in translation and its background.

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.

Relate your knowledge of socio-historical background of IWE.

Design and create texts/ posters for a variety of purposes and audiences, evaluating and assessing the importance of Indian writing in English and the writers.

BEG 302 –ENGLISH NOVELS

Upon successful completion of the course, the students will be able to:

Investigate the reasons and conditions for the rise of the novel.

Create answers and dialogues that generate clear understanding of the genre that novel is and its significance.

Apply the theoretical knowledge of cultural and literary dimensions that are represented through the novel.

Develop an understanding of the techniques used in the English novel.

Investigate the reasons and conditions for the rise of the novel.

BEG 303 –LITERARY CRITICISM

Upon successful completion of the course, the students will be able to:

Investigate the background to the History of literary criticism

Explain the various principles laid down by the theorists

Apply the theories laid down by them on famous works of English Literature

Design and create texts/ posters for a variety of purposes and audiences, evaluating and assessing the importance of these theories and the writers

BEG 304–POSTCOLONIAL LITERATURE (DE)

Upon successful completion of the course, the students will be able to:

Identify texts, its socio-political background, authors and genres of different ages and the development of literary traditions.

Explain how the texts, ideas, themes and modalities arose within a given cultural or historic context.

Design and create texts/ posters for a variety of purposes and audiences, evaluating and assessing the importance of Postcolonial texts and the writers.

Relate your knowledge of Socio-historical background on the classical texts of those times

BEG 306–BRITISH, AMERICAN AND DIASPORA WRITINGS (DE)

Upon successful completion of the course, the students will be able to:

Be acquainted with Diaspora concept

Study the themes and characteristics of Diaspora writings of British, American

Know study the efficacy of Diaspora on twentieth century writing

Design and create texts/ posters for a variety of purposes and audiences, evaluating and assessing the importance of diaspora writings and the writers.

BEG 307–THE FOLK AND MODERN NARRATIVES (DE)

Upon successful completion of the course, the students will be able to:

Enable the learners to discuss the relation between folk forms and modern narratives.

Help to list out the problems in classification of ‘folk’ and ‘modern’ in literature.

Examine the nature, concept, and function of ‘folk’ in modern Indian literature.

Enable the learners to know about Indian literature and how is it different from pre-modern Indian literature.

Relate with it to the prescribed texts.

BEG 350–NTCC PROJECT ON STORY WRITING

Upon successful completion of the course, the students will be able to:

Identify the basic features of story writing

Apply the knowledge of story writing
Create a story from the original resource provided

BEG 401–LITERARY THEORY

Upon successful completion of the course, the students will be able to:

Investigate the reasons and conditions for the rise of the literary theory in the postmodern age.

Create answers and dialogues that generate clear understanding about various literary theories

Apply the theoretical knowledge of cultural and literary dimensions that are represented through theoretical texts.

Develop an understanding of the social concerns in the postmodern times.

BEG 402–PROSE FROM 16TH TO 20TH CENTURY

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the literary traditions

Interpret and discuss key texts, ideas, themes, and emerging trends of the Victorian age modalities.

Explain how the texts, ideas, themes and modalities arose within a given cultural, historic and political context.

Relate your knowledge of poetry to the texts and authors read and interpret them in your own words.

BEG 403–TWENTIETH CENTURY INDIAN ENGLISH NOVEL

Upon successful completion of the course, the students will be able to:

Investigate the reasons and conditions for the rise of the Indian English novel.

Create answers and dialogues that generate clear understanding of the genre that Indian English novel is and its significance.

Apply the theoretical knowledge of cultural and literary dimensions that are represented through the Indian English novel.

Develop an understanding of the techniques used in the Indian English novel.

BEG 404–MOERN EUROPEAN DRAMA

Upon successful completion of the course, the students will be able to:

Investigate the reasons and conditions for the rise of the Modern European Drama.

Create answers and dialogues that generate clear understanding of the genre that Modern European Drama is and its significance.

Apply the theoretical knowledge of cultural and literary dimensions that are represented through the European Drama.

Develop an understanding of the techniques used in the Modern European Drama.

BEG 406–AFRICAN AMERICAN WRITINGS (DE)

Upon successful completion of the course, the students will be able to:

Be acquainted with the Afro- American writer.

Create knowledge about the writers' age and writing techniques.

Analyze impact of various age on literature and society and emerging trends in Afro American Literature

Develop an understanding of the techniques used in the Afro American Writngs.

BEG 406– Exploration of Folk Tradition and Conservation of Folklore (DE)

Upon successful completion of the course, the students will be able to:

Enables the learner about Folk Theatre and various folk forms of Rajasthan.

Helps to introduce the cause of language death and decaying of folk culture methods of preservation of language and culture.

Aims to teach the various methods to conserve and preserve folklore.

Helps the learner to learn various ways of documentation.

Introduces the cause of language death and decaying of folk culture.

BEG 450– NTCC PROJECT ON DIGITAL MEDIA WORK (DE)

Upon successful completion of the course, the students will be able to:

Identify the basic features of digital media content

Apply the knowledge of digital media content

Create digital media content in the forms required

BEG 501– MODERN ENGLISH POETRY

Upon successful completion of the course, the students will be able to:

Identify the socio-political background of the poets, texts and the poetic techniques in the Modern Age.

Interpret and discuss the texts, themes and the nuances of the writers living and writing in the first half of the twentieth century.

Explain how the texts are exemplary of the times, the ideas and the themes of the poets.

Relate the knowledge of tools and techniques of modern poets with the contemporary texts of their times.

Create term papers on the basis of knowledge conferred on them.

BEG 502– CONTEMPORARY LITERATURE-I

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the early literary traditions.

Explore poetic and dramatic representations of African, Canadian and Indian literature.

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.

Relate your knowledge of ancient texts and belief systems to enduring issues and values in contemporary societies, including your own.

BEG 503– FICTION: SCIENCE & MYSTERIES

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the artistic achievement of detective fiction writers

Interpret and discuss key texts, ideas, themes, and aesthetic modalities

Apply knowledge of the historical, fictional, and cultural contexts of the literature of this to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts.

Develop your own skills for critical analysis

BEG 504– INDIAN WOMEN WRITING (DE)

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the artistic achievement of IWW

Interpret and discuss key texts, ideas, themes, and aesthetic modalities

Apply knowledge of the historical, fictional, and cultural contexts of the literature of this to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts.

Develop your own skills for critical analysis

BEG 505– WOMEN’S WRITING IN GENERAL IN THE NINETEENTH AND TWENTIETH CENTURIES (DE)

Upon successful completion of the course, the students will be able to:

Identify the socio-political and cultural background of the women writers, texts and the techniques they have adopted to voice their concerns.

Interpret and discuss the texts, themes and the nuances of the women writers living and writing in 19th and 20th century.

Explain how the texts written by the women writers are representative of their times, the ideas and the themes.

Relate the knowledge of tools and techniques of women writers with the women writers of the contemporary times.

Create term papers based on knowledge conferred on them.

BEG 506– DIMENSIONS OF FOLKLORE STUDIES (DE)

Upon successful completion of the course, the students will be able to:

Helps the learners to establish relationship between gender and folklore in detail.

Creates awareness about dynamics of various media and folklore.

Provides a comprehensive knowledge on nature of folklore in arts, films etc.

Endeavours to equip the learners with basic knowledge of various functions that human language plays in the society via various cultural platforms.

Helps the learners to establish relationship between gender and folklore in detail.

BEG 550– SUMMER INTERNSHIP EVALUATION

Upon successful completion of the course, the students will be able to:

Identify the requirements of workplace and related behaviour.

Apply the knowledge of internship and internship report writing

Create an internship report based on skills acquired during the internship

BEG 601– LINGUISTICS

Upon successful completion of the course, the students will be able to:

Know about human language, importance of linguistics and levels of language study.

Classify the sounds and articulation of speech sounds.

Know about the different techniques of word formation.

Comprehend implications of Transformational Generative Grammar and Phrase Structure Grammar

Know about the theories of sentence formation and the methods of the same.

BEG 602– CONTEMPORARY LITERATURE- II

Upon successful completion of the course, the students will be able to:

Identify key elements of that area distinctive to the artistic achievement of African American Writers

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts.

BEG 604– AMERICAN LITERATURE-II

Upon successful completion of the course, the students will be able to:

Identify key elements of that area distinctive to the artistic achievement of American Writers

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts.

Know the Anglo-American Writing in relation to contemporary culture and issues.

BEG 605– REGIONAL LITERATURE IN TRANSLATION

Upon successful completion of the course, the students will be able to:

Identify the basics of research writing

Apply the knowledge of research writing

Create a dissertation report with substantial



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF LANGUAGES
(ASL)**

Bachelor of Arts (Honours)

French

Programme Code: BFR

Duration – 3Years Full Time

Programme Structure

Credits Summary

Bachelor of Arts (Honours) – French

Semester	CC	DE	VA	OE	EVS	NTCC	Total
I	12	0	2	0	0	9	23
II	12	0	2	3	4	9	30
III	12	0	2	3	0	9	26
IV	12	3	2	3	0	8	28
V	12	3	2	3	0	12	32
VI	12	3	0	0	0	5	20
Total	72	9	10	12	4	52	159

Core	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Environmental Science	EVS
Project Work	NTCC
Anandam Project	ANDP

Program Specific Outcomes (PSOs)

- Understand French texts and express in standard French.
- Acquire general and domain specific vocabulary
- Exposure and understand culture and civilization of France and Francophone countries
- Engage in project writing and in creative research related activities

Program Structure

AMITY SCHOOL OF LANGUAGES (ASL)

Bachelor of Arts (Honours)- French

First Semester

Code	Course	Category	L	T	P/FW	Credit
BFR 101	Written Communication-1	CC	2	2	0	4
BFR 102	Oral Communication-1	CC	1	1	2	4
BFR 103	French for Hotel and Restaurant Industry	CC	4	0	0	4
BFR 150	Project work	NTCC	0	0	7	7
AND 001	Anandam Project	ANDP	0	0	2	2
BCS 101	English	VA	1	0	0	1
BSS 103	Behavioural Science-I Understanding Self for Effectiveness	VA	1	0	0	1
Total Credits						23

Second Semester

Code	Course	Category	L	T	P/FW	Credit
BFR 201	Written Communication-II	CC	2	2	0	4
BFR 202	Oral Communication-II	CC	1	1	2	4
BFR 203	French for Tourism Industry	CC	4	0	0	4
BFR 250	Project Work	NTCC	0	0	7	7
BCS 201	English		1	0	0	1
AND 002	Anandam Project	ANDP	0	0	2	2
BSS 203	Behavioural Science-II Problem solving and creative thinking		1	0	0	1
EVS 001	Environmental Science		4	0	0	4
Open Elective-1		OE	3	0	0	3
Total						30

Third Semester

Code	Course	Category	L	T	P/FW	Credit
BFR 301	Written Communication-III	CC	2	2	0	4
BFR 302	Oral Communication-III	CC	1	1	2	4
BFR 303	Overview of French Culture and Civilization-I	CC	4	0	0	4
BFR 350	Project Work	NTCC	0	0	7	7
AND 003	Anandam Project	ANDP	0	0	2	2
BCS 301	Communication Skills	VA	1	0	0	1
BSS 303	Behavioural Science-III Interpersonal Communication & Relationship Management	VA	1	0	0	1
Open Elective-2		OE	3	0	0	3
Total						26

Fourth Semester

Code	Course	Category	L	T	P/FW	Credit
BFR 401	Written Communication-IV	CC	2	2	0	4
BFR 402	Oral Communication-IV	CC	1	1	2	4
BFR 403	French through Literary Texts	CC	3	1	0	4
Domain Elective (Any one DE to be chosen)						
BFR 404	Technology French	DE	3	0	0	3
BFR 405	Professional and Business French	DE	3	0	0	
BFR 406	Contemporary French and Francophone Literature- I	DE	3	0	0	
BFR 450	Project Work	NTCC			6	6
BCS 401	Communication Skill	VA	1	0	0	1
AND 004	Anandam Project	ANDP	0	0	2	2
BSS 403	Behavioural Science-IV Group Dynamics and Team Building	VA	1	0	0	1
Open Elective-3		OE	3	0	0	3
Total						28

Fifth Semester

SUMMER INTERNSHIP PROJECT

Code	Course	Category	L	T	P/FW	Credit
BFR 501	Written Communication– V	CC	2	2	0	4
BFR 502	Oral Communication-V	CC	1	1	2	4
BFR 503	Introduction to French literary Movements & Typology of literary genres	CC	3	1	0	4
Domain Elective (Any one DE to be chosen)						
BFR 504	Literary Text : le petit prince by St. Exupéry	DE	3	0	0	3
BFR 505	Literary Text : l'Etranger by Albert Camus	DE	3	0	0	
BFR 506	Contemporary French and Francophone Literature- II	DE	3	0	0	
BFR 550	Summer Internship Project	NTCC	0	0	10	10
BCS 501	Communication Skill	VA	1	0	0	1
AND 005	Anandam Project	ANDP	0	0	2	2
BSS 503	Behavioural science V Individual, Society and Nation	VA	1	0	0	1
Open Elective-4		OE	3	0	0	3
Total						32

Sixth Semester

Code	Course	Category	L	T	P/FW	Credit
BFR 601	Introduction to Linguistics	CC	2	2	0	4
BFR 602	Overview of French Culture and Civilization-II	CC	3	1	0	4
BFR 603	Oral Communications– VI	CC	1	1	2	4
Domain Elective (Any one DE to be chosen)						
BFR 604	Introduction to Translation	DE	2	1	0	3
BFR 605	Consecutive Interpretation	DE	2	1	0	
BFR 650	Project Work	NTCC	0	0	5	5
Total						20

COURSE OUTCOMES

AMITY SCHOOL OF LANGUAGES (ASL)

Bachelor of Arts (Honours)- French

BFR 101 – WRITTEN COMMUNICATION - I

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammatical norms.
2. Interpret different types of texts as well as French civilizational ideas and theme.
3. Demonstrate comprehension of nuance between script and sound in French.
4. Express clearly ideas, themes in simple standard French.
5. Present oneself and others, to ask and give personal information.
6. Give directions, to describe one's surrounding.
7. Talk about likes and dislikes, hobbies.
8. Tell time and date, to talk about daily routine to describe weather.
9. Talk about events in past, to talk about one's experiences.

BFR 102 – ORAL COMMUNICATIONS - I

Upon successful completion of the course, the students will be able to:

1. Express in standard French
2. Describe persons, things, and places
3. Ask questions about things, persons, and places
4. Compare things, persons, and places
5. Understand the French phonetic system
6. Develop strategies of listening comprehension
7. Pass from written to oral, from oral to written easily
8. Be sensitized to nuances of speech, dialectical variations, and "registre de langage"
9. Overcome the fear of speaking a foreign language and take position as a foreigner speaking French

BFR 103 – FRENCH FOR HOTEL AND RESTAURANT INDUSTRY

Upon successful completion of the course, the students will be able to:

1. Know the essentials of French for hotel and catering sector
2. Understand how to communicate in French in simple, common professional situations of the hotel and catering sector
3. Initiate in the techniques of reception and services like reservation, house-keeping, catering, handling claims, preparing for departure

BFR 150 – PROJECT WORK

Upon successful completion of the course, the students will be able to:

1. Do independent work and research
2. Acquire knowledge about French culture and civilization
3. Groom oral skill and presentation
4. Self-learn the areas not treated in the course

BFR 201 – WRITTEN COMMUNICATION - II

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammatical norms.
2. Interpret different types of texts as well as French civilizational ideas and theme.
3. Demonstrate comprehension of nuance between script and sound in French.
4. Express clearly ideas, themes in simple standard French.
5. Express one's point of view, difficulties, emotions, motivation, preferences etc.
6. Describe lodgings, objects
9. Talk about or narrate events in past and future, to talk about health, express pain and symptoms to ask and to give advices, to give instructions
10. Compare objects and people, to describe daily activities

BFR 202 – ORAL COMMUNICATIONS - II

Upon successful completion of the course, the students will be able to:

1. Express in standard French
2. Describe persons, things, and places
3. Ask questions about things, persons, and places
4. Compare things, persons, and places
5. Understand the French phonetic system
6. Develop strategies of listening comprehension
7. Pass from written to oral, from oral to written easily
8. Be sensitized to nuances of speech, dialectical variations, and “registre de langage”
9. Overcome the fear of speaking a foreign language and take position as a foreigner speaking French

BFR 203 – FRENCH FOR TOURISM INDUSTRY

Upon successful completion of the course, the students will be able to:

1. Know the basic essentials of French for tourism industry
2. Understand how to communicate in French in simple, common professional situations of the tourism industry
3. Know the services like organizing event in a tourist site, promoting a destination, conceiving the design and sale of a product, accompanying and providing support

BFR 250 – PROJECT WORK

Upon successful completion of the course, the students will be able to:

1. Do independent work and research
2. Acquire knowledge about French culture and civilization
3. Groom oral skill and presentation
4. Self-learn the areas not treated in the course

BFR 301 – WRITTEN COMMUNICATION - III

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammatical norms.
2. Interpret different types of texts as well as French civilizational ideas and theme.
3. Demonstrate comprehension of nuance between script and sound in French.
4. Express clearly ideas, themes in simple standard French.

BFR 302 – ORAL COMMUNICATIONS - III

Upon successful completion of the course, the students will be able to:

1. Express in standard French
2. Describe persons, things, and places
3. Ask questions about things, persons, and places
4. Compare things, persons, and places
5. Understand the French phonetic system
6. Develop strategies of listening comprehension
7. Pass from written to oral, from oral to written easily
8. Be sensitized to nuances of speech, dialectical variations, and “registre de langage”
9. Master the current social communication skills in oral
10. Enrich the formulations, the linguistic tools and vary the sentence structure

BFR 303 – OVERVIEW OF FRENCH AND FRANCOPHONE CULTURE AND CIVILISATION – I

Upon successful completion of the course, the students will be able to:

1. Give a broad geographical, historical, cultural and social background of France
2. Know the major events- historical, political and cultural- of French society extending from French Revolution till today
3. Explore how today’s France came into existence and what role it plays in the world, especially in Europe
4. Discover the various other cultural aspects like French festivals, cuisine, cinema, music and theatre

BFR 350 – PROJECT WORK

Upon successful completion of the course, the students will be able to:

1. Do independent work and research
2. Acquire knowledge about French culture and civilization
3. Groom oral skill and presentation
4. Self-learn the areas not treated in the course

BFR 401 – WRITTEN COMMUNICATION - IV

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammatical norms.
2. Interpret different types of texts as well as French civilizational ideas and theme.
3. Demonstrate comprehension of nuance between script and sound in French.
4. Express clearly ideas, themes in simple standard French.
5. Express sentiments, obligation, possibility -to present a person, to narrate a story
6. Give or justify one's opinion
7. Describe a festival, a folkloric activity
8. Participate in a job interview, present a professional experience, give opinion on a literary work or film, to present a hobby

BFR 402 – ORAL COMMUNICATIONS - IV

Upon successful completion of the course, the students will be able to:

1. Express in standard French
2. Describe persons, things, and places
3. Ask questions about things, persons, and places
4. Compare things, persons, and places
5. Understand the French phonetic system
6. Develop strategies of listening comprehension
7. Pass from written to oral, from oral to written easily
8. Be sensitized to nuances of speech, dialectical variations, and “registre de langage”
9. Master the current social communication skills in oral
10. Enrich the formulations, the linguistic tools and vary the sentence structure

BFR 403 – FRENCH THROUGH LITERARY TEXTS

Upon successful completion of the course, the students will be able to:

1. Identify different genres of French literature
2. Interpret different types of texts, cultural ideas and themes.
3. Demonstrate comprehension of messages of literary texts
4. Express clearly ideas, themes in simple standard French

BFR 404 – FRENCH FOR TECHNOLOGY

Upon successful completion of the course, the students will be able to:

1. Develop the linguistic and professional competence to communicate in writing as well as verbal in technical field
2. Demonstrate and display the linguistic and professional skills pertaining to various jobs in Engineering domain.
3. Communicate in common situation in the profession of technical industry regarding services and facilities amenities
4. Apply the knowledge management and communication skills in the real situation
5. Understand the sorting and recycling system in France
6. Use the compliment of the direct object
7. Understand the recycling process in French
8. Grasp exams preparation in France as a topic

BFR 405 – PROFESSIONAL AND BUSINESS FRENCH

Upon successful completion of the course, the students will be able to:

1. Know the basic essentials of professional French
2. Communicate in French on business topic
3. Understand common situations related to the business and corporate world
4. Prepare CVs and face interviews

BFR 406 – CONTEMPORARY FRENCH AND FRANCOPHONE LITERATURE- I

Upon successful completion of the course, the students will be able to:

1. Identify different genres of French and francophone literature
2. Interpret different types of texts, cultural ideas and themes.
3. Demonstrate comprehension of messages of literary texts
4. Express clearly ideas, themes in simple standard French

BFR 450 – PROJECT WORK

Upon successful completion of the course, the students will be able to:

1. Do independent work and research
2. Acquire knowledge about French culture and civilization
3. Groom oral skill and presentation
4. Self-learn the areas not treated in the course

BFR 501 – WRITTEN COMMUNICATION - V

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammatical norms.
2. Interpret different types of texts as well as French civilizational ideas and theme.
3. Demonstrate comprehension of nuance between script and sound in French.
4. Express clearly ideas, themes in simple standard French.

5. Report speech, to express one's point of view
6. Analyse an editorial, to compare information given in different texts
7. Express an opposition, a hypothesis, a goal, probabilities
8. Present an experience or an educational project
9. Present a political or social project, to talk about a technological innovation
10. Debate on an issue
11. Talk about one's hobby/passion, a restaurant, a dish
12. Comment on/discuss a literary work

BFR 502 – ORAL COMMUNICATIONS - V

Upon successful completion of the course, the students will be able to:

1. Express in standard French
2. Describe persons, things, and places
3. Ask questions about things, persons, and places
4. Compare things, persons, and places
5. Understand the French phonetic system
6. Develop strategies of listening comprehension
7. Pass from written to oral, from oral to written easily
8. Be sensitized to nuances of speech, dialectical variations, and "registre de langage"
9. Master the current social communication skills in oral
10. Enrich the formulations, the linguistic tools and vary the sentence structure

BFR 503 – INTRODUCTION TO FRENCH LITERARY MOVEMENTS & TYPOLOGY OF LITERARY GENRES

Upon successful completion of the course, the students will be able to:

1. Identify different genres of French literature
2. Interpret different types of texts, cultural ideas and themes.
3. Demonstrate comprehension of messages of literary texts
4. Express clearly ideas, themes in simple standard French

BFR 550 – SUMMER INTERNSHIP PROJECT

Upon successful completion of the course, the students will be able to:

1. Gain knowledge through practical experience
2. Understand the theoretical principles learnt during the semesters
3. Write on a particular topic relating to the core course or courses of the program
4. Gather and analyse information/ideas, leading to production of a structured report

BFR 601 – INTRODUCTION TO LINGUISTICS

Upon successful completion of the course, the students will be able to:

1. Know basics of linguistic theories
2. Understand terminologies in Linguistics
3. Learn concepts of *Morphology*, *Semantics* etc.

4. Understand linguistic theories

BFR 602 – OVERVIEW OF FRENCH AND FRANCOPHONE CULTURE AND CIVILISATION – II

Upon successful completion of the course, the students will be able to:

1. Give a broad geographical, historical, cultural and social background of France
2. Know the major events- historical, political and cultural- of French society extending from French Revolution till today
3. Explore how today's France came into existence and what role it plays in the world, especially in Europe
4. Discover the various other cultural aspects like French festivals, cuisine, cinema, music and theatre

BFR 603 – ORAL COMMUNICATIONS - VI

Upon successful completion of the course, the students will be able to:

1. Develop strategies of listening comprehension
2. Pass from written to oral, from oral to written easily
3. Be sensitized to nuances of speech, dialectical variations, and “registre de langage”
4. Master the current social communication skills in oral
5. Enrich the formulations, the linguistic tools and vary the sentence structure
6. Develop logical thinking, to speak, argue and debate in a coherent and cohesive manner employing appropriate words of liaison, and transition

BFR 604 – INTRODUCTION TO TRANSLATION

Upon successful completion of the course, the students will be able to:

5. Know basics of translation theories
6. Understand the process of translation
7. Practice techniques of translation
8. Understand terminologies in Translation
9. Use concepts of *Equivalence, Translation product and process* etc.
10. Understand translation theories (skopos, polysystem...)

BFR 605 – INTRODUCTION TO CONSECUTIVE INTERPRETATION

Upon successful completion of the course, the students will be able to:

1. Know Consecutive Modes of interpretation
2. Learn Note taking techniques
3. Practice Interpretation

BFR 650 – PROJECT WORK

Upon successful completion of the course, the students will be able to:

1. Do independent work and research
2. Acquire knowledge about French culture and civilization
3. Groom oral skill and presentation
4. Self-learn the areas not treated in the course



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF LANGUAGES (ASL)

Master of Arts (M.A.)

Programme Outcome (PO)

PO1: To acquire the knowledge of various research methods and develop research aptitude for finding solutions to a specific issue.

PO2: To explain social, economic, historical, geographical, political, ideological and philosophical tradition of their respective subjects.

PO3: To develop as responsible citizens and professionals and to think and act for the solution of various issues prevailing in the human life to make this world a better place.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF LANGUAGES
(ASL)**

MA English

Programme Code: MEG

12103

Duration – 2 Years Full Time

Programme Structure

Credits Summary

MA English

SEM	CC	DE	VA	OE	NTCC	TOTAL
I	16	0	3	0	10	29
II	16	0	3	3	10	32
III	12	4	3	3	13	35
IV	12	4	0	0	14	30
TOTAL	56	8	09	6	47	126

CC- Core Course; DE- Domain Elective; VA- Value Added; OE- Open Elective

NTCC- Non-teaching Credit course

Program Specific Outcomes (PSOs)

1. Intends to make efficient academician through meticulous study/ analysis/evaluation of literary genres- Prose, poetry, Drama, and Fiction
2. Wish to train you to become experts having the expertise in writing skills, sharpen your writing capacity in the form of, critic, analyst, reviewer, content writer.
3. You will have contextual knowledge relating to society, culture and history, thereby having in depth knowledge of social sciences may develop into a social scientist by contextualizing the text read.
4. Purpose to guide you through given tasks/assignments/ projects/presentation/ which will help you become a genuine researcher. In-depth knowledge of the area will help you becoming a good research associate.
5. You will have opportunity to expose yourself as global citizen.

Program Structure

AMITY SCHOOL OF LANGUAGES (ASL)

MA English

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credits
MEG101	Ancient Greek & Latin Literature in Translation	CC	4	0	0	4
MEG102	English Literature from Medieval Period to 17 th Century	CC	4	0	0	4
MEG103	Drama from Shakespeare to Ben Jonson	CC	4	0	0	4
MEG104	Restoration and Augustan Prose and Poetry	CC	4	0	0	4
MEG 150	Project Work	NTCC	0	0	0	8
AND001	Anandam	NTCC	0	2	0	2
BSS111	Behavioral Science – I, Development, and Interpersonal Skills	VA	1	0	0	1
FLN 111 FLG 111 FLS 111 FLC 111	Foreign Language-I(Select any one) French -I German -I Spanish - I Chinese -I	VA	2	0	0	2
	TOTAL					29

Code	Course	Category	L	T	P/FW	Credits
MEG201	Restoration and Augustan Drama	CC	4	0	0	4
MEG202	18 th and 19 th Century Novels	CC	4	0	0	4
MEG203	English Romantic Poetry	CC	4	0	0	4

SECOND SEMESTER

MEG204	Victorian Literature	CC	4	0	0	4
MEG 250	Project Work	NTCC	0	0	0	8
BSS 211	Behavioral science-II (Behavioral Communication and Relationship Management)	VA	1	0	0	1
AND002	Anandam	NTCC	0	2	0	2
FLN 211 FLG 211 FLS 211 FLC 211	Foreign Language-I(Select any one) French German Spanish Chinese	VA	2	0	0	2
Open Elective-2		OE	3	0	0	3
	TOTAL					32

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credits
MEG301	20 th Century Poetry	CC	4	0	0	4
MEG302	20 th Century Drama	CC	4		0	4

				0		
MEG303	20 th Century Novel	CC	4	0	0	4
MEG 304	Select any one Literary Criticism					
MEG 305	20 TH Century Indian English Literature	DE	4	0	0	4
MEG 306	Indian Drama & Theatre					
MEG 360	Project Work	NTCC		0		11
BSS 311	Behavioral Science – III, (Leading Through Teams)	VA	1	0	0	1
AND003	Anandam	NTCC	0	2	0	2
FLN 311	Foreign Language(Select anyone)	VA	2	0	0	2
FLG 311	French					
FLS 311	German					
FLC 311	Spanish					
	Chinese					
Open Elective-3		OE	3	0	0	3
	TOTAL					35

SUMMER PROJECT

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credits
MEG 401	Literary Theory	CC	4	0	0	4

MEG 402	Linguistics and English Language Teaching	CC	4	0	0	4
MEG403	Indian Literature in Translation	CC	4	0	0	4
MEG 404	Select anyone- American Literature	DE	4	0	0	4
MEG 405	European Comedy					
MEG 406	Postmodern Indian English Drama					
MEG 450	Project Work	NTCC		0		14
TOTAL CREDITS						30

COURSE OUTCOMES

AMITY SCHOOL OF LANGUAGES (ASL)
M.A. ENGLISH

MEG 101 – ANCIENT GREEK & LATIN LITERATURE IN TRANSLATION

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the early literary traditions.

Interpret and discuss key texts, ideas, themes, and aesthetic modalities

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context

Relate your knowledge of ancient texts and belief systems to enduring issues and values in contemporary societies, including your own.

MEG 102 – ANCIENT GREEK & LATIN LITERATURE IN TRANSLATION

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the medieval literature.

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts

Develop your own skills of literary critical analysis.

MEG 103 – DRAMA FROM SHAKESPEARE TO BEN JONSON:

Upon successful completion of the course, the students will be able to:

Recognize and discuss the key characteristics of the four sub-genres (history, tragedy, comedy, romance).

Construct and justify arguments about the compositional merits, cultural value and educational importance of classical drama.

Refer to a range of critical approaches to various dramas and their linguistic, poetic, structural features.

MEG 104 – RESTORATION AGE PROSE & POETRY

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the artistic achievement of Restoration age writers.

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts.

Develop your own skills of literary critical analysis.

MEG 201 – RESTORATION AND AUGUSTAN DRAMA

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the artistic achievement of Restoration age writers.

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres

Reflect and write analytically about the literary texts and their contexts.

Develop your own skills of literary critical analysis

MEG 202 – EIGHTEENTH & NINETEENTH CENTURY NOVELS

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the early literary traditions

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.

Relate your knowledge of the early 20th Century to enduring issues and values in contemporary societies.

MEG 203 – ENGLISH ROMANTIC POETRY

Upon successful completion of the course, the students will be able to:

Investigate Romanticism as both an historical period and as a movement in art and literature

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Identify the major tenets of Romanticism, including the movement's interests in the natural world, supernaturalism, revolution, morality, ethics, exoticism, urbanization, mindscapes, moods, imagination, and interiority; and

Relate your knowledge of the early 20th Century to enduring issues and values in contemporary societies.

MEG 204 – VICTORIAN LITERATURE

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the artistic achievement of Victorian age writers

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts.

Develop your own skills for critical analysis

MEG 301 – TWENTIETH CENTURY POETRY

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the twentieth Century Poetry.

Interpret and discuss key texts, ideas, themes, and aesthetics of poetry

Apply knowledge of the historical and socio- cultural contexts of the poetry of this period to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts.

MEG 302 – TWENTIETH CENTURY DRAMA

Upon successful completion of the course, the students will be able to:

Investigate the cultural and literary tendencies of the 20th Century and the drama written therein

Create analytical answers using critical perspectives

Apply theories of existentialism, absurdism, modernism on the texts in the syllabus.

Develop newer dialogues and extend the critical thoughts already introduced by scholars and critics.

MEG 303 – TWENTIETH CENTURY NOVELS

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the artistic achievement of twentieth century writers.

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres.

Reflect and write analytically about the literary texts and their contexts.

Develop your own skills for critical analysis.

MEG 304 – LITERARY CRITICISM

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the Literary theories

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres.

MEG 305 – TWENTIETH CENTURY INDIAN ENGLISH DRAMA

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to the Literary theories

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature of this period to some major authors, works, and genres.

MEG 306 – INDIAN DRAMA & THEATRE

Upon successful completion of the course, the students will be able to:

Identify key elements that are distinctive to theatre

Interpret and discuss key texts, ideas, themes, and aesthetic modalities.

Apply knowledge of the historical and cultural contexts of the literature and theatre.

MEG 307 – COMMONWEALTH LITERATURE- HISTORY, POETRY, NOVELS

Upon successful completion of the course, the students will be able to:

Recognize and discuss the key characteristics of Commonwealth Literature

Construct and justify arguments about the compositional merits, cultural values, and educational importance of Commonwealth Literatures

Refer to a range of critical approaches to various literary texts and their linguistic, poetic, structural features.

MEG 401 – COMMONWEALTH LITERATURE- HISTORY, POETRY, NOVELS

Upon successful completion of the course, the students will be able to:

Identify the basics of literary theories

Apply the theories in analyzing texts

Develop skills of analysis and criticism.

MEG 402 – LINGUISTICS AND ENGLISH LANGUAGE TEACHING

Upon successful completion of the course, the students will be able to:

Identify the basics of linguistics and the theories of language study.

Analyze the basics of language theory.

Create term paper based on ELT and linguistics.

MEG 403 – INDIAN LITERATURE IN TRANSLATION

Upon successful completion of the course, the students will be able to:

Identify Indian literature in translation.

Analyse various elements of prose and poetry of Indian literature

Analyse basic themes in Indian literature

MEG 404 – AMERICAN LITERATURE (DE)

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the early literary traditions

Interpret and discuss key texts, ideas, themes, and aesthetic modalities

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.

Relate your knowledge of ancient texts and belief systems to enduring issues and values in contemporary societies, including your own.

MEG 405 – EUROPEAN COMEDY (DE)

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the early literary traditions

Interpret and discuss key texts, ideas, themes, and aesthetic modalities

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.

Relate your knowledge of ancient texts and belief systems to enduring issues and values in contemporary societies, including your own.

MEG 406 – POST MODERN INDIAN ENGLISH THEATRE AND DRAMA (DE)

Upon successful completion of the course, the students will be able to:

Identify texts contexts, authors and genre based stylistic hallmarks of those texts and authors within the early literary traditions

Interpret and discuss key texts, ideas, themes, and aesthetic modalities

Explain how the texts, ideas, themes, and modalities arose within a given cultural or historic context.

Relate your knowledge of ancient texts and belief systems to enduring issues and values in contemporary societies, including your own.

MEG 407 – COMMONWEALTH LITERATURE- DRAMA, NOVELS, SHORT STORIES

Upon successful completion of the course, the students will be able to:

Recognize and discuss the key characteristics of the New Literatures

Identify the prototypical features of New Literatures and critically appreciate them

Critically appreciate the structure, narrative features and language of New Literatures.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF LIBERAL ARTS (ASLA)

Bachelor of Arts (B.A.)

Programme Outcome (PO)

PO1: To acquire capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems.

PO2: To apply analytical thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, and beliefs on the basis of empirical evidence.

PO3: To develop a sense of inquiry so as to ask relevant or appropriate questions related to problem solving, defining problems, formulating hypotheses, testing hypotheses.

PO4: To get acquainted with social transactions, social relations, social formations, social control, social values and culture.

PO5: To realize human values and acquire critical temper and creative ability.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF LIBERAL ARTS
(ASLA)**

Bachelor of Arts (Honours) - Economics

Program Code: BAE

Duration – 3 Years Full Time

Programme Structure

Credits Summary

B.A. Economics UG (3 years/ 6 semesters)						
Semester	Core Course CC	Domain Electives DE	Value Added Course VA	Open Electives OE	Non- Teaching Credit Courses (NTCC) (Anadam)	Total
I	10	3	4		2	19
II	14	3	4	3	2	26
III	13	3	4	3	2	25
IV	14	3	4	3	2	26
V	13	3	4	3	5	28
VI	12	3			6	21
Total	76	18	20	12	19	145

Core	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE

Program Specific Outcomes (PSOs)

- Knowledge about domestic and global economic policies and problems
- Critical Thinking and Problem-Solving ability about present and future
- Written and Oral Communication of economics theory and economics situation
- Awareness about Economic, social and political variable's effects

Program Structure

AMITY SCHOOL OF LIBERAL ARTS(ASLA) BA (Hons.) - ECONOMICS

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAE 101	Mathematics for Economics – I	CC	3	1	0	4
BAE 102	Micro Economics – I	CC	3	0	0	3
BAE 103	Macro Economics – I	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE						
BAE104	Economic History of India	DE	3	0	0	3
BAE 105	Law and Economics					
BAE 106	An Introduction to Political Theory					
AND 001	Anandam-I	NTCC	0	0	0	2
BCS 101	English- I	VA	1	0	0	1
BSS 103	Behavioural Science-I(Understanding Self for Effectiveness)	VA	1	0	0	1
	Foreign Language-I (Select any One)	VA	2	0	0	2
FLN 101	French					
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
Total						19

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAE201	Mathematics for Economics – II	CC	3	1	0	4
BAE202	Micro Economics – II	CC	3	0	0	3
BAE203	Macro Economics – II	CC	3	0	0	3
EVS 001	Environmental Studies	CC	4	0	0	4
DE Electives: Student has to select 1 course from the list of following DE electives						
BAE 204	Political Economy	DE	3	0	0	3
BAE 205	Agriculture Economics					
AND 002	Anandam-II	NTCC	0	0	0	2
BCS 201	English-II	VA	1	0	0	1
BSS 203	Behavioural Science-II(Problem Solving and Creative Thinking)	VA	1	0	0	1
Foreign Language-II (Select any One)						
FLN 201	French	VA	2	0	0	2
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
	Open Elective/ Minor Track -I	OE	3	0	0	3
	Total					26

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAE 301	Statistics for Economics- I	CC	3	1	0	4
BAE 302	Microeconomics – III	CC	3	0	0	3
BAE 303	Macroeconomics – III	CC	3	0	0	3
BAE 304	Indian Economy – I	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE						
BAE 305	Economics of Health and Education	DE	3	0	0	3
BAE 306	Financial Economics					
AND 003	Anandam-III	NTCC	0	0	0	2
BCS 301	Communication Skill –I	VA	1	0	0	1
BSS 303	Behavioural Science-III(Interpersonal Communication & Relationship Management)	VA	1	0	0	1
Foreign Language-III (Select any One)						
FLN 301	French	VA	2	0	0	2
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
	Open Elective/ Minor Track -I	OE	3	0	0	3
	Total					25

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAE 401	Statistics for Economics- II	CC	3	1	0	4
BAE 402	Development Economics – I	CC	3	0	0	3
BAE 403	Game Theory	CC	3	1	0	4
BAE 404	Indian Economy – II	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE						
BAE 405	Public Economics	DE	3	0	0	3
BAE 406	History of Economic Thought					
AND 004	Anandam-IV	NTCC	0	0	0	2
BCS 401	Communication Skills –II	VA	1	0	0	1
BSS 403	Behavioural Science-IV (Group Dynamics and Team Building)	VA	1	0	0	1
Foreign Language-IV (Select any One)						
FLN 401	French	VA	2	0	0	2
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
	Open Elective/ Minor Track -I					
	Total	OE	3	0	0	3
						26

FIFTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAE 501	Econometrics – I	CC	3	1	0	4
BAE 502	Behavioural Economics	CC	3	1	0	4
BAE 503	Development Economics – II	CC	3	0	0	3
BAE 504	Academic Writing	CC	2	0	0	2
BAE505	Summer Internship	NTCC	0	0	0	3
DE Electives: Student has to select 1 course from the list of following DE						
BAE 506	Readings in Economics	DE	3	0	0	3
BAE 507	Labour Economics					
BAE 508	Industrial Organisation					
AND 005	Anandam-V	NTCC	0	0	0	2
BCS 501	Communication Skills –III	VA	1	0	0	1
BSS 503	Behavioral Science-V (Individual, Society and Nation)	VA	1	0	0	1
Foreign Language-V (Select any One)						
FLN 501	French	VA	2	0	0	2
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
	Open Elective/ Minor Track -I	OE	3	0	0	3
	Total					28

SIXTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAE 601	Econometrics – II	CC	3	1	0	4
BAE 602	Data Analytics	CC	2	0	0	2
BAE 603	International Economics	CC	3	0	0	3
BAE 604	Financial Market and Institutions	CC	3	0	0	3
BAE 605	Dissertation	NTCC	0	0	0	6
DE Electives: Student has to select 1 course from the list of following DE						
BAE 606	Environmental Economics	DE	3	0	0	3
BAE 607	Entrepreneurship Development					
	Total					21

COURSE OUTCOMES

AMITY SCHOOL OF LIBERAL ARTS(ASLA) BA (Hons.) - ECONOMICS

First Semester

BAE 101 MATHEMATICS FOR ECONOMICS-I

At the successful completion of this course you (the student) should be able to:

- 1 Use appropriate techniques to solve problems with calculus and linear algebra.
- 2 Interpret and use intermediate mathematical data, symbols and terminology.
- 3 Demonstrate understanding and proficiency in elementary skills in Mathematical Methods for Economics building on the knowledge and skills.
- 4 Select the appropriate mix of concept, logic and method of solution required for solving problems in Applied Economics.
- 5 Apply these mathematical methods to problems in the area of Applied Economics with confidence and accuracy.

BAE 102 MICRO ECONOMICS-I

At the successful completion of this course you (the student) should be able to:

- 1 Understand Basic Concepts of Economics & Economic Problem
- 2 Analyze the impact of Demand & Supply Mechanism
- 3 Appreciate the economic approach of consumer behavior process

BAE 103 MACRO ECONOMICS-I

At the successful completion of this course you (the student) should be able to:

- 1 Analyze the impact of domestic economic issues on internal economic situation.
- 2 Evaluate the impact of global economic issues and changes on domestic as well as global economic condition.
- 3 Examine how macro-economic policies affect economic growth, inflation, interest rates, and expectations.
- 4 Analyze the effects of new economic policies (e.g., GST, Demonetization) on domestic economy.
- 5 Examine how government's fiscal and monetary policy affects aggregate demand and aggregate supply of any economy.

BAE 104 ECONOMIC HISTORY OF INDIA (1857-1947)

At the successful completion of this course you (the student) should be able to:

- 1 At the end of the course the student will be able to Acknowledge the economic development in colonial India and its impact on the world.
- 2 Develop a critical appreciation of evolution of economic theories and their impacts.
- 3 Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past

BAE 105 LAW AND ECONOMICS

At the successful completion of this course you (the student) should be able to:

- 1 Recognize the economic issues in a legal problem and apply the economic way of thinking to analyze it.
- 2 Assess the efficiency effects of legal rules and policies.
- 3 To examine the impact of legal rules on economic efficiency and distribution.

BAE 106 AN INTRODUCTION TO POLITICAL THEORY

At the successful completion of this course you (the student) should be able to:

- 1 Establishing a cemented platform for students to learn basics of human values and its significance in human life.
- 2 Upgrading analytical abilities to understand how different aspects of political theory are important for a better human society.
- 3 Empowering the students with the new approaches which shall develop their interest in the subject and make them understand it in deeper sense.
- 4 Appreciating Students learning to the basic fundamentals of political theory and its different nuances and complexities and how different concepts of political theory help making better citizens and finally better society.

AND 001 ANANDAM-I

At the successful completion of this course you (the student) should be able to:

- 1 Awareness and empathy regarding community issues
- 2 Interaction with the community and impact on society
- 3 Interaction with mentor and development of Student teacher relationship
- 4 Interaction among students, enlarge social network
- 5 Cooperative and Communication skills and leadership qualities
- 6 Critical thinking, Confidence and Efficiency

BCS 101 ENGLISH-I

At the successful completion of this course you (the student) should be able to:

- 1 Participate in conversation and in small- and whole-group discussion
- 2 Explore and use English as medium of communication in real life situation
- 3 Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
- 4 Identify features of a reading textbook and utilize them as needed
- 5 Prepare and deliver organized presentations in small groups and to whole class
- 6 Apply sentence mechanics and master spelling of high frequency words

BSS 103 BEHAVIOURAL SCIENCE – I (UNDERSTANDING SELF FOR EFFECTIVENESS)

At the successful completion of this course you (the student) should be able to:

- 1 Inculcating Behavioural skills
- 2 Construct and showcase their Behavioural in a creative manner.
- 3 Comprehending and demonstrating ways of Behaviour.
- 4 Outlining and illustrating Behavioural Skills

FLN 101 FRENCH-I

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 101 GERMAN-I

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 101 SPANISH-I

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 101 CHINESE-I

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- 2 Students will be able to read and interpret small texts of advance level.
- 3 Students will be able to communicate with complex sentences.

Second Semester

BAE 201 MATHEMATICS FOR ECONOMICS – II

At the successful completion of this course you (the student) should be able to:

- 1 Solve Economic Problems related to Multivariable Optimization.
- 2 Understand issues involved in Linear Programming and use this mathematical programming method for locating the optimal solution to a set of linear equations.
- 3 Demonstrate understanding and proficiency in using mathematical technique of integration to solve various problems in Applied Economics.
- 4 Use Matrix Algebra to find solution to various Economic Problems.

BAE 202 MICRO ECONOMICS-II

At the successful completion of this course you (the student) should be able to:

- 1 Analyze the impact of different types of costs on production & output.
- 2 Examine how firms take decision in a competitive market.
- 3 Analyze the effects of monopoly on firms & consumers.
- 4 Examine how firms behave in monopolistic & oligopolistic markets to meet their desired objectives.

BAE 203 MACRO ECONOMICS – II

At the successful completion of this course you (the student) should be able to:

- 1 Explain the Classical and Keynesian model of income determination.
- 2 Understand the aggregate demand and aggregate supply.

- 3 Discuss the wage determination and natural rate of unemployment.
- 4 Explain the relationship between inflation and unemployment.

EVS 001 ENVIRONMENT STUDIES

At the successful completion of this course you (the student) should be able to:

- 1 Inculcating Environment friendly behaviour
- 2 Develop environmental skills
- 3 Comprehending environmental sensibilities

BAE 204 POLITICAL ECONOMY

At the successful completion of this course you (the student) should be able to:

- 1 Establishing a cemented platform for students to learn the evolution and basic fundamentals of political economy.
- 2 Upgrading analytical abilities to understand how the different concepts and theories of political economy.
- 3 Suiting the students with the new approaches which shall make them develop an interest in the subject and make them understand in deeper sense.
- 4 Students learn the basic fundamentals of political economy and how to use it for better understanding of other social sciences.

BAE 205 AGRICULTURE ECONOMICS

At the successful completion of this course you (the student) should be able to:

- 1 Equip the students with knowledge and grasp the characteristics of modern agriculture
- 2 Analyze how the agricultural sector contributes to the Indian economy.
- 3 Understand Agricultural price policy.

AND 002 ANANDAM-II

At the successful completion of this course you (the student) should be able to:

- 1 Awareness and empathy regarding community issues
- 2 Interaction with the community and impact on society
- 3 Interaction with mentor and development of Student teacher relationship
- 4 Interaction among students, enlarge social network
- 5 Cooperative and Communication skills and leadership qualities
- 6 Critical thinking, Confidence and Efficiency

BCS 201 English -II

At the successful completion of this course you (the student) should be able to:

- 1 Participate in conversation and in small- and whole-group discussion

- 2 Explore and use English as medium of communication in real life situation
- 3 Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
- 4 Identify features of a reading textbook and utilize them as needed
- 5 Prepare and deliver organized presentations in small groups and to whole class
- 6 Apply sentence mechanics and master spelling of high frequency words

BSS 203 BEHAVIOURAL SCIENCE – II (PROBLEM SOLVING AND CREATIVE THINKING)

At the successful completion of this course you (the student) should be able to:

- 1 Inculcating Behavioural skills
- 2 Construct and showcase their Behavioural in a creative manner.
- 3 Comprehending and demonstrating ways of Behaviour.
- 4 Outlining and illustrating Behavioural Skills

FLN 201 FRENCH - II

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 201 GERMAN – II

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 201 SPANISH – II

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.

- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 201 CHINESE – II

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- 2 Students will be able to read and interpret small texts of advance level.
- 3 Students will be able to communicate with complex sentences.

Third Semester

BAE 301 STATISTICS FOR ECONOMICS- I

At the successful completion of this course you (the student) should be able to:

- 1 Produce, evaluate and interpret summary statistics and graphics appropriate to a specific research question and the characteristics of a given data set.
- 2 Be familiar with various data types and presentation of data and be able to recognize the appropriate underlying distribution for descriptive analysis.
- 3 Demonstrate a working knowledge of the basics of The Research Method and its relationship to statistical inference
- 4 Understand the framework of statistical inference (estimation and hypothesis testing) based on random samples
- 5 Students will be able to synthesize and communicate the aims, methods, results and interpretation in the format of a statistical report.

BAE 302 MICRO ECONOMICS- III

At the successful completion of this course you (the student) should be able to:

- 1 Analyze how factors of market work and effect on different types of market conditions.
- 2 Examine what are the new challenges for a competitive market like moral hazards and asymmetric information.
- 3 Analyze role of externalities in decision making.
- 4 Examine how firms behave in monopolistic & oligopolistic markets to meet their desired objectives.

BAE 303 MACRO ECONOMICS- III

At the successful completion of this course you (the student) should be able to:

- 1 Analyze the impact of domestic economic issues on internal economic situation.
- 2 Examine the relationship between income and consumption in short-run and long run.
- 3 Examine how macro-economic policies affect economic growth, inflation, interest rates, and expectations.
- 4 Analyze the effects of new economic policies (e.g., GST, Demonetization) on domestic economy.
- 5 Examine how government's fiscal and monetary policy affects aggregate demand and aggregate supply of any economy.

BAE 304 INDIAN ECONOMY – I

At the successful completion of this course you (the student) should be able to:

- 1 Analyze the impact of domestic saving and investment on domestic economic condition.
- 2 Evaluate the impact of global economic position and changes on domestic economic condition.
- 3 Examine how economic condition depends on macro-economic policies and how it affected by economic growth, inflation, interest rates, and expectations.
- 4 Analyze the Indian planning period and impact of new economic policies (e.g. GST, Demonetization) on domestic economy.
- 5 Examine government's policy regarding human development, employment; poverty etc. and its effects on aggregates economy and economic environment.

BAE 305 ECONOMICS OF HEALTH AND EDUCATION

At the successful completion of this course you (the student) should be able to:

- 1 Apply the microeconomic tools and concepts to the topics of health and education, including contemporary policy issues.
- 2 To equip you with the skills to be able to understand and critique economic evaluations of health care interventions, and to be able to apply these evaluation skills more generally (i.e., to any economic project appraisal).
- 3 To encourage you to develop analytical and decision-making skills, including modest technical and quantitative proficiencies.

AND 003 ANANDAM-III

At the successful completion of this course you (the student) should be able to:

- 1 Awareness and empathy regarding community issues
- 2 Interaction with the community and impact on society
- 3 Interaction with mentor and development of Student teacher relationship
- 4 Interaction among students, enlarge social network
- 5 Cooperative and Communication skills and leadership qualities
- 6 Critical thinking, Confidence and Efficiency

BAE 306 FINANCIAL ECONOMICS

At the successful completion of this course you (the student) should be able to:

- 1 Analyze the impact of domestic economic issues on internal economic situation.
- 2 Evaluate the Investment Theory and Its Possible Implementation on Practical Ground.
- 3 Examine how industrial and home financial policies works and affect economic growth, employment, trade, inflation and expectations.
- 4 Analyze the effects of new industrial financial policies (e.g. FDIs and FIIs) on domestic economy.
- 5 Examine how government's fiscal and monetary policy affects financial market, aggregate demand and aggregate supply of any economy.

BCS 301 COMMUNICATION SKILLS – I

At the successful completion of this course you (the student) should be able to:

- 1 Inculcating creative thinking skills
- 2 Construct and showcase their communication skills in a creative manner.
- 3 Comprehending and demonstrating ways of self-introduction
- 4 Outlining and illustrating presentation Skills

BSS 303 BEHAVIOURAL SCIENCE – III (Interpersonal Communication and Relationship Management)

At the successful completion of this course you (the student) should be able to:

- 1 Inculcating Behavioural skills
- 2 Construct and showcase their Behavioural in a creative manner.
- 3 Comprehending and demonstrating ways of Behaviour.
- 4 Outlining and illustrating Behavioural Skills

FLN 301 FRENCH – III

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 301 GERMAN – III

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 301 SPANISH – III

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 301 CHINESE – III

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of advance level.
- 3 Students will be able to communicate with complex sentences.

Fourth Semester

BAE 401 STATISTICS FOR ECONOMICS- II

At the successful completion of this course you (the student) should be able to:

- 1 To equip the students with good knowledge of the issues related to the measurement and modelling of economic behaviours.
- 2 Have an ability to provide a critical assessment on the quality and reliability of data.
- 3 Gain a good understanding of the specification and estimation techniques for a selection of statistical models grounded in economic theory.

BAE 402 DEVELOPMENT ECONOMICS-I

At the successful completion of this course you (the student) should be able to:

- 1 Analyse the relationship between population and economic development.
- 2 Understand and evaluate the rural-urban interrelations, structure of markets, how contracts are linked to the problems of enforcement experienced in poor countries in the economy.
- 3 Implications on the role of globalization and increased international dependence on the process of development and the link between growth and sustainable development.

BAE 403 GAME THEORY

At the successful completion of this course you (the student) should be able to:

- 1 Describe the Normal form games and applications.
- 2 Discuss the Extensive form games with complete information.
- 3 Appreciate the strategies and Bayesian Nash equilibrium.
- 4 Explain the strategies, beliefs and sequential equilibrium.

BAE 404 INDIAN ECONOMY- II

At the successful completion of this course you (the student) should be able to:

- 1 Explain the various macroeconomic policies.
- 2 Understand the issues in agriculture sector and evaluate the food security in India.
- 3 Examine the role of industry and service sectors in overall development of Indian economy.
- 4 Assess India's position of balance of payments.

BAE 405 PUBLIC ECONOMICS

At the successful completion of this course you (the student) should be able to:

- 1 Understand and analyse the role of Governments in the modern mixed economies.
- 2 Demonstrate knowledge of how public expenditure affects economic development and how is this administered by govt.
- 3 Evaluate characteristics of a good tax system, revenue and expenditures of the Government and understand how Tax structure has evolved over years in India.
- 4 Appraise Different Budgetary tools & Evaluate Budgetary policies.
- 5 Appraise the impact of changes in fiscal policy on the economy, how initiatives and regulations in fiscal planning helps the economy.

BAE 406 HISTORY OF ECONOMIC THOUGHT

At the successful completion of this course you (the student) should be able to:

- 1 Have the ability to understand the evolutionary course of the development of economic thinking.
- 2 Understand the contribution of major economists in the past to building modern economic analysis.
- 3 Process and critically evaluate the arguments of each school of economic thought.

AND 004 ANANDAM-IV

At the successful completion of this course you (the student) should be able to:

- 1 Awareness and empathy regarding community issues
- 2 Interaction with the community and impact on society
- 3 Interaction with mentor and development of Student teacher relationship
- 4 Interaction among students, enlarge social network
- 5 Cooperative and Communication skills and leadership qualities
- 6 Critical thinking, Confidence and Efficiency

BCS 401 COMMUNICATION SKILLS – II

At the successful completion of this course you (the student) should be able to:

- 1 Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
- 2 Demonstrate the ability to analyse a problem and devise a solution in a group.
- 3 Demonstrate proficiency in the use of written communication.

- 4 Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 403 BHAVIOURAL SCIENCE - IV (GROUP DYNAMICS AND TEAM BUILDING)

At the successful completion of this course you (the student) should be able to:

- 1 Inculcating Behavioural skills
- 2 Construct and showcase their Behavioural in a creative manner.
- 3 Comprehending and demonstrating ways of Behaviour.
- 4 Outlining and illustrating Behavioural Skills

FLN 401 FRENCH – IV

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 401 GERMAN – IV

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 401 SPANISH – IV

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 401 CHINESE – IV

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

Fifth Semester

BAE 501 INTERNATIONAL ECONOMICS

At the successful completion of this course you (the student) should be able to:

- 1 Understand the concept and importance of international economics.
- 2 Understand the Implementation and effect of international economic policy.
- 3 Better evaluation of domestic and international economic situation as well as trade situation.

BAE 502 ECONOMETRICS—BASIC THEORY & APPLICATION

At the successful completion of this course you (the student) should be able to:

- 1 Understand basic econometric concepts & appraise econometric methodology.
- 2 Comprehend & analyse the issues involved in formation of Simple Linear Regression model.
- 3 Comprehend & analyse the issues involved in formation of Multiple Linear Regression model.
- 4 Assess the impact of violations of assumptions of OLS & correctly re-specify the model in case of violation.
- 5 Critically examine the issues involved in the specification of OLS Model.

BAE 503 FINANCIAL ECONOMICS

At the successful completion of this course you (the student) should be able to:

- 1 Analyze the impact of domestic economic issues on internal economic situation.
- 2 Evaluate the Investment Theory and Its Possible Implementation on Practical Ground.

- 3 Examine how industrial and home financial policies works and affect economic growth, employment, trade, inflation and expectations.
- 4 Analyze the effects of new industrial financial policies (e.g. FDIs and FIIs) on domestic economy.
- 5 Examine how government's fiscal and monetary policy affects financial market, aggregate demand and aggregate supply of any economy.

BAE 504 INDUSTRIAL ECONOMICS

At the successful completion of this course you (the student) should be able to:

- 1 To understand the comparative advantage and competitiveness among Indian industries.
- 2 To understand the composition of Indian industry and its growth and sickness.
- 3 To learn about the theories of industrial location and financing of industry.

BAE 505 SUMMER TRAINING (EVALUATION)

At the successful completion of this course you (the student) should be able to:

- 1 Construct the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship.
- 2 Assess its Strengths, Weaknesses, Opportunities and Threats (SWOT) for his / her organization of internship.
- 3 Determine the challenges and future potential for his / her internship organization in particular and the sector in general.

BAE 506 ECONOMICS OF INFRASTRUCTURE

At the successful completion of this course you (the student) should be able to:

- 1 Have a thorough grounding in the key concepts of Infrastructure economics.
- 2 Illustrate how the concepts and standard economic tools can be used to analyse Infrastructure-related Theory and policy issues.
- 3 Apply this knowledge to the analysis of specific infrastructure economics issues in India.

BAE 507 LABOUR ECONOMICS

At the successful completion of this course you (the student) should be able to:

- 1 Understand the structure of labour markets and its frictions.
- 2 Analyze the interactions between aggregate economic forces and identify the role of firms, workers and government in the economy.
- 3 Understanding integral concepts of labour market & its issues (such as unemployment,

taxation, educational choice, wage differentials, discrimination, etc.)

BAE 508 COMPARATIVE ECONOMIC DEVELOPMENT

At the successful completion of this course you (the student) should be able to:

- 1 Develop the understanding of key comparative economic theories- Kuznets's, Lewis and Gerschenkron's.
- 2 Elaborate the key factors of the agricultural revolution experienced by Great Britain and the rise of Industries.
- 3 Clearly illustrate the development process of US economy- the great depression, Marshall plan.
- 4 Assess how development of Japanese economy was different in terms of: Role of state, Agricultural Development and Industrial growth.

BAE 509 ECONOMIC ANALYTICS –I

At the successful completion of this course you (the student) should be able to:

- 1 Understand basic econometric concepts & appraise econometric methodology.
- 2 Comprehend & analyze the use of econometric tools with data.
- 3 Analyze the data issues involved in formation of Multiple Linear Regression model.
- 4 Assess the impact of various information on economic through econometric analysis.
- 5 Critically examine the issues involved in the specification of OLS Model.

BCS501 COMMUNICATION SKILLS – III

At the successful completion of this course you (the student) should be able to:

- 1 Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
- 2 Demonstrate the ability to analyse a problem and devise a solution in a group.
- 3 Demonstrate proficiency in the use of written communication.
- 4 Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 503 BEHAVIOURAL SCIENCE - V (INDIVIDUAL, SOCIETY AND NATION)

At the successful completion of this course you (the student) should be able to:

- 1 Inculcating Behavioural skills
- 2 Construct and showcase their Behavioural in a creative manner.
- 3 Comprehending and demonstrating ways of Behaviour.

4 Outlining and illustrating Behavioural Skills

FLN 501 FRENCH – V

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 501 GERMAN - V

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 501 SPANISH – V

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.
- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 501 CHINESE – V

At the successful completion of this course you (the student) should be able to:

- 1 Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
- 2 Students will be able to read and interpret small texts of intermediate level.
- 3 Students will be able to communicate in small sentences in Simple Future and Past tenses.

- 4 Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

Sixth Semester

BAE 601 PUBLIC FINANCE

At the successful completion of this course you (the student) should be able to:

- 1 Understand and analyse the role of Governments in the modern mixed economies.
- 2 Demonstrate knowledge of how public expenditure affects economic development and how is this administered by govt.
- 3 Evaluate characteristics of a good tax system, revenue and expenditures of the Government and understand how Tax structure has evolved over years in India.
- 4 Appraise Different Budgetary tools & Evaluate Budgetary policies.
- 5 Appraise the impact of changes in fiscal policy on the economy, how initiatives and regulations in fiscal planning helps the economy.

BAE 602 STRATEGIC MANAGEMENT

At the successful completion of this course you (the student) should be able to:

- 1 Compare and contrast different perspectives that characterize strategy making;
- 2 Identify strategic issues and relevant external and internal factors that need to be addressed by the company;
- 3 Apply theories of strategic fit to the formulation of effective strategy for the dynamic environment; and
- 4 Analyze futuristic challenges that firms face in maintaining future strategic plans.

BAE 603 BUSINESS INFORMATION & DATA BASE SYSTEM

At the successful completion of this course you (the student) should be able to:

- 1 Explain key concepts, need and typology of management information system.
- 2 Understand the database management system
- 3 Explain the customer relationship management, data warehousing and data mining.
- 4 Explain the concepts of database system architecture and database security.

BAE 604 DISSERTATION

At the successful completion of this course you (the student) should be able to:

- 1 Understand characteristics of quantitative and qualitative research.
- 2 Identify and define a research problem.

- 3 Solve a research problem by independently undertaking a research study.

BAE 605 BUSINESS ETHICS & CORPORATE GOVERNANCE

At the successful completion of this course you (the student) should be able to:

- 1 Demonstrate an understanding of business ethics.
- 2 Develop various corporate social Responsibilities and practice the same in their professional life.
- 3 Demonstrate various ethical codes while working in a professional environment.

BAE 606 ECONOMICS OF HEALTH AND EDUCATION

At the successful completion of this course you (the student) should be able to:

- 1 Apply the microeconomic tools and concepts to the topics of health and education, including contemporary policy issues.
- 2 To equip you with the skills to be able to understand and critique economic evaluations of health care interventions, and to be able to apply these evaluation skills more generally (i.e., to any economic project appraisal).
- 3 To encourage you to develop analytical and decision-making skills, including modest technical and quantitative proficiencies.

BAE 607 HUMAN RESOURCE DEVELOPMENT

At the successful completion of this course you (the student) should be able to:

- 1 Explain human resources development (HRD) and its theories, the difference between education, training, learning and the concept of the transfer of learning;
- 2 Critique the relationship between organisational development (OD) and HRD contribution to organisational effectiveness;
- 3 Apply and evaluate a learning process starting with training needs analysis to assessment and evaluation process;
- 4 Evaluate the HRD role dealing with contemporary challenges.

BAE 608 ECONOMIC ANALYTICS –II

At the successful completion of this course you (the student) should be able to:

- 1 Deal with Issues in the Modeling of Multiple Regressions, Simultaneous Equation, Qualitative and Dependent Variables and Time Series Data.
- 2 Demonstrate basic knowledge statistical software: Stata & SPSS.
- 3 Undertake small projects involving complexities of real-world economic problems.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF LIBERAL ARTS
(ASLA)**

Bachelor of Arts (Honours) – History

Programme Code: BHH

12573

Duration – 3 Years Full Time

Programme Structure

Credits Summary

B.A. History UG (3 years/ 6 semesters)							
Semester	Core Course CC	Domain Electives DE	Value Added Course VA	Open Electives OE	Non-Teaching Credit Courses (NTCC)	(Anadam)	Total
I	12	3	4	-	-	2	21
II	16	3	4	3	-	2	28
III	12	3	4	3	-	2	24
IV	12	3	4	3	6	2	30
V	12	3	4	3	-	2	24
VI	12	3	-	-	6	-	21
Total	76	18	20	12	12	10	148

Core	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Non - Teaching Credit Courses (NTCC)	NTCC

Program Specific Outcomes (PSOs)

- Explain and analyze a key historical event or process in the area and during the period under study.
- Understand the diversity of the human experience as influenced by geographical location, race, ethnicity, cultural traditions, gender and class
- Analyze historical processes that shape individuals and communities, drawing on detailed knowledge about the history of the area under study
- Think critically about the varieties of experience found in the historical record of the United States, exposing diversity as a critical component of history.

Program Structure

AMITY SCHOOL OF LIBERAL ARTS(ASLA) BA (Hons.) – HISTORY

FIRST SEMESTER

Code	Course	Catego	L	T	P/FW	Credit
BHH 101	History of India-I	CC	3	0	0	3
BHH 102	Social Formations and Cultural Patterns of the Ancient World	CC	3	0	0	3
BHH 103	Economic History of India	CC	3	0	0	3
BHH 104	History of Latin America (c. 1500 – 1960s)	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BHH 105	Constitutional History	DE	3	0	0	3
BHH 106	World Civilizations	DE	3	0	0	
AND 001	Anandam-I	NTCC	0	0	0	2
VALUE ADDED						
BCS 101	English- I	VA	1	0	0	1
BSS103	Behavioral Science-I Understanding Self for Effectiveness	VA	1	0	0	1
Foreign Language-I (Select any One)						
FLN 101	French	VA	2	0	0	2
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
Total						21

SECOND SEMESTER

Code	Course	Category	L	T	P/F W	Credit
BHH 201	History of India-II	CC	3	0	0	3
BHH 202	Social Formations and Cultural Patterns of the Medieval World	CC	3	0	0	3
BHH 203	History of Contemporary India	CC	3	0	0	3
BHH 204	Social and Political History of Rajasthan	CC	3	0	0	3
EVS 001	Environment Studies	CC	4	0	0	4
DE Electives: Student has to select 1 course from the list of following DE electives						
BHH 205	Civil Services in India - History and Scope	DE	3	0	0	3
BHH 206	History of Temple Architecture.	DE	3	0	0	
AND 002	Anandam-II	NTCC	0	0	0	2
VALUE ADDED						
BCS 201	English-II	VA	1	0	0	1
BSS 203	Behavioral Science-II Problem Solving and Creative Thinking	VA	1	0	0	1
Foreign Language-II (Select any One)						
FLN 201	French	VA	2	0	0	2
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
	Open Elective	OE				3
	Total					28

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credit
BHH 301	History of India-III (c. 750-1206)	CC	3	0	0	3
BHH 302	History of Southeast Asia – The 19th Century	CC	3	0	0	3
BHH 303	History of England –1900 to 2000 A.D.	CC	3	0	0	3
BHH 304	Rise of Modern West-I	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BHH 305	History of U.S.A.	DE	3	0	0	3
BHH 306	History of USSR	DE	3	0	0	
AND 003	Anandam-III	NTCC	0	0	0	2
VALUE ADDED						
BCS 301	Communication Skill –I	VA	1	0	0	1
BSS 303	Behavioral Science-III Interpersonal Communication and Relationship Management	VA	1	0	0	1
Foreign Language-III (Select any One)						
FLN 301	French	VA	2	0	0	2
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
	Open Elective	OE				3
Total						24

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit
BHH 401	History of India- IV (c. 1206-1550)	CC	3	0	0	3
BHH 402	Rise of Modern West-II	CC	3	0	0	3
BHH 403	History of Fascism	CC	3	0	0	3
BHH 404	History of southeast Asia- 20 th century.	CC	3	0	0	3
BHH 405	Internship	NTTC	0	0	0	6
DE Electives: Student has to select 1 course from the list of following DE electives						
BHH406	History of Africa	DE	3	0	0	3
BHH407	History of China and Japan A.D. 1840-1945	DE	3	0	0	
AND 004	Anandam-IV	NTCC	0	0	0	2
VALUE ADDED						
BCS 401	Communication Skills –II	VA	1	0	0	1
BSS 403	Behavioral Science-IV Group Dynamics and Team Building	VA	1	0	0	1
Foreign Language-IV (Select any One)						
FLN 401	French	VA	2	0	0	2
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
	Open Elective					3
Total						30

FIFTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit
BHH 501	History of India-V (c. 1550-1605)	CC	3	0	0	3
BHH 502	Indian Archaeology	CC	3	0	0	3
BHH 503	Outlines of History of South India	CC	3	0	0	3
BHH 504	History of India-VI (c. 1750-1857)	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BHH 505	Major Sources of Indian History	DE	3	0	0	3
BHH 506	History of Nazism	DE	3	0	0	
AND 005	Anandam-V	NTCC	0	0	0	2
VALUE ADDED						
BCS 501	Communication Skills –III	VA	1	0	0	1
BSS 503	Behavioral Science-V Individual, Society and Nation	VA	1	0	0	1
Foreign Language-V (Select any One)						
FLN 501	French	VA	2	0	0	2
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
Open Elective		OE				3
Total						24

SIXTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BHH 601	History of India-VII (c. 1605-1750)	CC	3	0	0	3
BHH 602	History of India-VIII (c. 1857-1950)	CC	3	0	0	3
BHH 603	History of Subaltern (1800 A.D to 1947 A.D)	CC	3	0	0	3
BHH 604	Trend in Historical writing	CC	3	0	0	3
BHH 605	Dissertation	NTTC	0	0	0	6
DE Electives: Student has to select 1 course from the list of following DE electives						
BHH 606	Revolution and Revolutionary thoughts	DE	3	0	0	3
BHH 607	Gender & History	DE	3	0	0	
Total						21

COURSE OUTCOMES

AMITY SCHOOL OF LIBERAL ARTS(ASLA) BA (Hons.) – HISTORY

BHH 101 HISTORY OF INDIA-I

At the successful completion of this course you (the student) should be able to:

- 1 Overview of the political conditions and scenario of India in early ancient times.
- 2 Understand causes and consequences of various religious revolutions.
- 3 Examine the causes and consequences of growth of trade and commerce

BHH 103 ECONOMIC HISTORY OF INDIA (1757 to 1947)

1. The learner will be able to understand the economic changes that determined the course of Indian history in the modern period.
2. Analyse how these changes had a major impact on other parts of the world.
3. Examine the significant problems, ideologies and events and explain their consequences.
4. Formulate ideas and interpretations through assignments and presentations.

BHH 104 History of Latin America (C. 1500 – 1960s)

1. Identify the process of colonisation of Latin America
2. Analyse and critically evaluate the African slave trade
3. Evaluate the causes of the rise of Latin American Nationalism in the 19th Century
4. Study the impact of the US hegemony

BHH 105 Constitutional History

1. Identify the various early laws in English colonies.
2. Analyse and critically evaluate the legal reforms of Cornwallis and Warren Hastings.
3. Evaluate the causes of the legal reforms of the 19th century.
4. Study the development of the 20th century legal system in India.

BHH 106

WORLD CIVILIZATIONS

1. Identify the process of human social formation.
2. Analyse and critically evaluate the early settlements and their growth.
3. Evaluate the causes of the rise and fall of various ancient civilizations.
4. Study the impact of the various ancient civilizations on human and his story.

AND001

Anandam-I

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

BCS 101

ENGLISH-I

1. Participate in conversation and in small- and whole-group discussion
2. Explore and use English as medium of communication in real life situation
3. Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
4. Identify features of a reading textbook and utilize them as needed
5. Prepare and deliver organized presentations in small groups and to whole class
6. Apply sentence mechanics and master spelling of high frequency words

BSS 103

BEHAVIOURAL SCIENCE – I

1. Inculcating Behavioural skills
2. Construct and showcase their Behavioural in a creative manner.
3. Comprehending and demonstrating ways of Behaviour.
4. Outlining and illustrating Behavioural Skills

FLN 101

FRENCH – I

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 101

GERMAN-I

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 101

SPANISH-I

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 101

Chinese

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.

BHH 201

History of India-II

1. Overview of the political conditions and scenario of India in early ancient times.
2. Understand causes and consequences of various religious revolutions.
3. Examine the causes and consequences of growth of trade and commerce.

BHH 202

Social Formations and Cultural Patterns of the Medieval World

1. Identify Medieval World from 5th century onwards in Europe.
2. Identify Social and Cultural Formations in Europe in medieval period.
3. Identify Historical developments in the Middle East.
4. Examine the rise of Islam in the Middle East.

BHH 203

HISTORY OF CONTEMPORARY INDIA

1. At the end of the course the student will be able to Acknowledge the contemporary History of India

2. Develop a critical appreciation of evolution history writing
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past

BHH 204 SOCIAL AND POLITICAL HISTORY OF RAJASTHAN

1. Overview of the History of Rajasthan
2. Understanding the reforms and revision in the political system
3. Studying the Social reforms during Rajput Era
4. Understanding the Economic Development of Modern Rajasthan

EVS 001 ENVIRONMENT STUDIES

1. Inculcating Environment friendly behaviour
2. Develop environmental skills
3. Comprehending environmental sensibilities

BHH 205 CIVIL SERVICES IN INDIA - HISTORY AND SCOPE

1. Identify the need of Civil Services under the British
2. Identify the expansion of Civil services under British rule
3. Identify the development of Civil Services in 20th century British India
4. Examine the developments in post-colonial 20th century Indian Civil Service

BHH 206 HISTORY OF TEMPLE ARCHITECTURE

1. Overview of the political conditions and scenario of India in early ancient times.
2. Understand causes and consequences of various religious revolutions.
3. Examine the causes and consequences of growth of trade and commerce.

AND 002 ANANDAM-II

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

BCS 201 ENGLISH-II

1. Participate in conversation and in small- and whole-group discussion

2. Explore and use English as medium of communication in real life situation
3. Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
4. Identify features of a reading textbook and utilize them as needed
5. Prepare and deliver organized presentations in small groups and to whole class
6. Apply sentence mechanics and master spelling of high frequency words

BSS 203 BEHAVIOURAL SCIENCE - II

1. Inculcating Behavioural skills
2. Construct and showcase their Behavioural in a creative manner.
3. Comprehending and demonstrating ways of Behaviour.
4. Outlining and illustrating Behavioural Skills

FLN 201 FRENCH - II

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 201 GERMAN – II

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 201 SPANISH – II

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 201 CHINESE – II

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.

BHH 301 HISTORY OF INDIA-III (C. 750-1206)

1. Overview of the political conditions and scenario of India in early medieval times.
2. Understand causes and consequences of various revolutions.
3. Examine the causes and consequences of growth of trade and commerce.

BHH 302 HISTORY OF SOUTHEAST ASIA – THE 19th CENTURY

1. At the end of the course the student will be able to Acknowledge the contribution of the different th socio-economic and cultural fabric southeast Asia.
2. Develop a critical appreciation of evolution of east Asia diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 303 HISTORY OF ENGLAND –1900 TO 2000 A.D.

1. Identify English history during World War I
2. Analyse the development of English history during World War II
3. Evaluate the Irish Independence movement
4. Study the cold war period of English history

BHH 304 RISE OF MODERN WEST-I

1. At the end of the course the student will be able to Acknowledge the contribution of the different socio-economic and cultural fabric Middle Ages Europe.
2. Develop a critical appreciation of evolution of European diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 305 HISTORY OF THE UNITED STATES OF AMERICA

1. Evaluate the early colonisation of United States.

2. Analyse and critically evaluate the course of the American War of Independence.
3. Identify the political and cultural changes in the USA during the 19th century.
4. Study the political developments during the 20th century and USA's rise to global prominence.

BHH 306 HISTORY OF USSR

1. Analyze and define the most important events, peoples, and historical processes of the Soviet Union.
2. Evaluate the establishment, rise and decline of the Soviet Union between 1917-1991.
3. Evaluate critically the writing, interpretation and importance of Soviet history.

AND 003 ANANDAM-III

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

BCS 301 COMMUNICATION SKILLS – I

1. Inculcating creative thinking skills
2. Construct and showcase their communication skills in a creative manner.
3. Comprehending and demonstrating ways of self-introduction
4. Outlining and illustrating presentation Skills

BSS 303 BEHAVIOURAL SCIENCE – III

1. Inculcating Behavioural skills
2. Construct and showcase their Behavioural in a creative manner.
3. Comprehending and demonstrating ways of Behaviour.
4. Outlining and illustrating Behavioural Skills

FLN 301 FRENCH - III

1. Students will hone intermediate language skills such as reading, writing,

- speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
 3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
 4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 301

SPANISH – III

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 301

CHINESE – III

1. Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of advance level.
3. Students will be able to communicate with complex sentences.

BHH 401

HISTORY OF INDIA- IV (C. 1206-1550)

1. It is expected that after doing this course, the student will become sufficiently curious about the current social and political developments and will also be equipped conceptually to attempt a rational scrutiny of the world around us.
2. Develop a critical appreciation of evolution of Indian diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 402 RISE OF MODERN WEST-II

1. At the end of the course the student will be able to Acknowledge the contribution of the different socio-economic and cultural fabric Middle Ages Europe.
2. Develop a critical appreciation of evolution of European diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 403 HISTORY OF FASCISM

1. Evaluate the rises of Nazism.
2. Analyse and critically evaluate the ideological characteristics of Nazism.
3. Identify the various aspect of Nazism in Germany.
4. Study the scientific developments in science and technology under Nazism.

BHH 404 HISTORY OF SOUTHEAST ASIA- 20TH CENTURY

1. Evaluate the process of decolonisation in Southeast Asia.
2. Analyse and critically evaluate the peasant movements and revolutions in the region.
3. Identify the rise of various nation states in Southeast Asia.
4. Study the role of the region during the Cold War.

BHH 406 HISTORY OF AFRICA

1. Investigate the History of Africa from 19th to 20th Century.
2. Develop an analytical approach towards issues of Africa from 19th to 20th Century.
3. Analyse the problems arising in sources of this time period.
4. Create an approach of critical reasoning towards the questions of Africa from 19th to 20th Century.

AND 004 ANANDAM-IV

1. Students will hone intermediate language skills such as reading, writing,

speaking, listening & interactive) in the language

2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

BHH 407 HISTORY OF CHINA AND JAPAN A.D. 1840-1945

1. Investigate the History of China and Japan from 19th to 20th Century.
2. Develop an analytical approach towards issues of China and Japan from 19th to 20th Century.
3. Analyse the problems arising in sources of this time period.
4. Create an approach of critical reasoning towards the questions of China and Japan from 19th to 20th Century.

BCS 401 COMMUNICATION SKILLS – II

1. Identify steps to professional communication.
2. Identify the key components of meeting, agendas and meeting minutes
3. Understand the key skills and behaviors required to facilitate a group discussion/presentation
4. Polish current affairs & rapport building

BSS 403 BEHAVIOURAL SCIENCE - IV (GROUP DYNAMICS AND TEAM BUILDING)

1. Inculcating Behavioural skills
2. Construct and showcase their Behavioural in a creative manner.
3. Comprehending and demonstrating ways of Behaviour.
4. Outlining and illustrating Behavioural Skills

FLN 401 FRENCH – IV

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 401 GERMAN - IV

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 401 SPANISH – IV

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 401 CHINESE – IV

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
2. Students will be able to read and interpret small texts of intermediate level.

3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

BHH 501 HISTORY OF INDIA-V (C. 1550-1605)

1. It is expected that after doing this course, the student will become sufficiently curious about the current social and political developments and will also be equipped conceptually to attempt a rational scrutiny of the world around us.
2. Develop a critical appreciation of evolution of Indian diverse cultural heritage
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 502 INDIAN ARCHAEOLOGY

1. At the end of the course the student will be able to Acknowledge the contribution of the different dynastic in socio- cultural history of India.
2. Develop a critical appreciation of evolution of Indian diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 503 OUTLINES OF HISTORY OF SOUTH INDIA

1. At the end of the course the student will be able to Acknowledge the contribution of the different dynastic in socio- cultural history of India.
2. Develop a critical appreciation of evolution of Indian diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 504 HISTORY OF INDIA-VI (C. 1750-1857)

1. At the end of the course the student will be able to Acknowledge the contribution of the different dynastic in socio- cultural history of India.
2. Develop a critical appreciation of evolution of Indian diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 505 MAJOR SOURCES OF INDIAN HISTORY

1. At the end of the course the student will be able to Acknowledge the contribution of the different intellectual history of India.
2. Develop a critical appreciation of evolution of Indian diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 506 HISTORY OF NAZISM

1. Evaluate the rises of Nazism.
2. Analyse and critically evaluate the ideological characteristics of Nazism.
3. Identify the various aspect of Nazism in Germany.
4. Study the scientific developments in science and technology under Nazism.

BCS 501 COMMUNICATION SKILLS - III

1. Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
2. Demonstrate the ability to analyse a problem and devise a solution in a group.
3. Demonstrate proficiency in the use of written communication.

4. Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 503 BEHAVIOURAL SCIENCE - V (INDIVIDUAL, SOCIETY AND NATION)

1. Inculcating Behavioural skills
2. Construct and showcase their Behavioural in a creative manner.
3. Comprehending and demonstrating ways of Behaviour.
4. Outlining and illustrating Behavioural Skills

FLN 501 FRENCH – V

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLG 501 GERMAN - V

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLS 501 SPANISH – V

1. Students will hone intermediate language skills such as reading, writing,

speaking, listening & interactive) in the language.

2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

FLC 501 CHINESE – V

1. Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language.
2. Students will be able to read and interpret small texts of intermediate level.
3. Students will be able to communicate in small sentences in Simple Future and Past tenses.
4. Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

BHH 601 HISTORY OF INDIA-VII (C. 1605-1750)

1. The learner will be able to understand the economic changes that determined the course of Indian history in the modern period.
2. Analyze how these changes had a major impact on other parts of the world.
3. Examine the significant problems, ideologies and events and explain their consequences.
4. Formulate ideas and interpretations through assignments and presentations.

BHH 602 HISTORY OF INDIA-VIII (C. 1857-1950)

1. The learner will be able to understand the economic changes that determined the course of Indian history in the modern period.

2. Analyze how these changes had a major impact on other parts of the world.
3. Examine the significant problems, ideologies and events and explain their consequences.
4. Formulate ideas and interpretations through assignments and presentations.

BHH 603 HISTORY OF SUBALTERN (1800 A.D TO 1947 A.D)

1. At the end of the course the student will be able to Acknowledge the contribution of the different dynastic in socio- cultural history of India.
2. Develop a critical appreciation of evolution of Indian diverse cultural heritage.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 604 TRENDS IN HISTORICAL WRITING

1. At the end of the course the student will be able to Acknowledge the contribution of the different Trends in history writing.
2. Develop a critical appreciation of evolution history writing.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about the past.

BHH 605 DISSERTATION

1. Practical knowledge of Research Methodology.
2. Understanding the reforms and revision in the political system of India.
3. Studying the Social reforms in History.
4. Understanding the Economic Development through Ages.

BHH 606 MAJOR REVOLUTION AND REVOLUTIONARY THOUGHTS

1. Analyze various revolutions with a critical approach towards the events and consequences.
2. Appreciate the role of revolutions in contributing to the constitution and reproduction of power relations.
3. Gain a clear understanding of the theoretical features, history, and political functions of revolution.

BHH 607 GENDER & HISTORY

1. At the end of the course the student will be able to acknowledge the contribution of Gender in History.
2. Develop a critical appreciation of Gender.
3. Assess, use, and synthesize different kinds of evidence from a variety of historical sources to make a coherent argument about Gender in History.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF LIBERAL ARTS
(ASLA)**

Bachelor of Arts (Honours) – Philosophy

Programme Code: BAP

Duration – 3 Years Full Time

Programme Structure

Credits Summary

Credits UG (3 years/ 6 semesters)			UG			
Semester	Core Course CC	Domain Electives DE	Value Added Course VA	Open Electives OE	Non- Teaching Credit Courses (NTCC) (Anandam)	Total
I	13	-	4		2	19
II	16	4	4	3	2	29
III	13	4	4	3	2	26
IV	16	4	4	3	2	29
V	12	4	4	3	5	28
VI	13	3			9	25
Total	83	19	20	12	22	156

Core	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Non- Teaching Credit Courses	NTCC

Program Specific Outcomes (PSOs)

- Demonstrate the knowledge of understanding about ideas of philosophers and philosophical text.
- Acquire ability to give an account of the scope, achievement, and principal concerns of some central Philosophical Investigations into the nature of reality , knowledge and value
- Written and Oral Communication will improve skills in reading philosophical texts and in writing philosophical paper
- Awareness about deeper understanding of what philosophy means to be a human being.
- Students will learn to detect presup positions, value judgments and generalizations, and to evaluate their implications..

Program Structure

AMITY SCHOOL OF LIBERAL ARTS(ASLA) BA (Hons.) - PHILOSOPHY

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAP 101	Introduction to Philosophy	CC	3	0	0	3
BAP 102	Indian Philosophy – I	CC	3	0	0	3
BAP 103	Western Philosophy - I	CC	3	0	0	3
BAP 104	Logic and Reasoning Aptitude – I	CC	3	1	0	4
AND 001	Anandam-I	NTCC	0	0	0	2
VALUE ADDED						
BCS 101	English- I	VA	1	0	0	1
BSS 103	Behavioural Science-I (Understanding Self for Effectiveness)	VA	1	0	0	1
Foreign Language-I (Select any One)		VA	2	0	0	2
FLN 101	French					
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
Total						19

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units	
BAP 201	Indian Philosophy – II	CC	3	0	0	3	
BAP 202	Western Philosophy - II	CC	3	0	0	3	
BAP 203	Logic & Reasoning Aptitude – II	CC	3	0	0	3	
BAP 204	Greek Philosophy	CC	3	0	0	3	
EVS 001	Environment Studies	CC	4	0	0	4	
DE Electives: Student has to select 1 course from the list of following DE electives							
BAP 205	Emerging Trends of Thought	DE	3	1	0	4	
BAP 206	Analytic Philosophy	DE					
AND 002	Anandam-II	NTCC	0	0	0	2	
VALUE ADDED							
BCS 201	English-II	VA	1	0	0	1	
BSS 203	Behavioural Science-II (Problem Solving and Creative Thinking)	VA	1	0	0	1	
Foreign Language-II (Select any One)			VA	2	0	0	2
FLN 201	French						
FLG 201	German						
FLS 201	Spanish						
FLC 201	Chinese						
	Open Elective	OE				3	
	Total					29	

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAP 301	Contemporary Indian philosophy I	CC	3	0	0	3
BAP 302	Contemporary Western philosophy I	CC	3	1	0	4
BAP 303	Indian Ethics	CC	3	0	0	3
BAP 304	Western Ethics	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BAP 305	Philosophy of Mahtma Gandhi and Vivekanand	DE	3	1	0	4
BAP 306	Philosophy of Culture					
AND 003	Anandam-III	NTCC	0	0	0	2
VALUE ADDED						
BCS 301	Communication Skill –I	VA	1	0	0	1
BSS 303	Behavioural Science-III (Interpersonal Communication & Relationship Management)	VA	1	0	0	1
	Foreign Language-III (Select any One)	VA	2	0	0	2
FLN 301	French					
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
	Open Elective	OE				3
	Total					26

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAP 401	Contemporary Indian Philosophy-II	CC	3	0	0	3
BAP 402	Contemporary Western Philosophy-II	CC	3	1	0	4
BAP 403	Social Political Philosophy	CC	3	0	0	3
BAP 404	Philosophy Of Bhagvad Gita	CC	3	0	0	3
BAP 405	Reading of philosophy	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BAP 406	Peace Studies	DE	3	1	0	4
BAP 407	Ethics in Public Domain					
AND 004	Anandam-IV	NTCC	0	0	0	2
VALUE ADDED						
BCS 401	Communication Skills –II	VA	1	0	0	1
BSS 403	Behavioural Science-IV (Group Dynamics and Team Building)	VA	1	0	0	1
Foreign Language-IV (Select any One)		VA	2	0	0	2
FLN 401	French					
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
	Open Elective	OE				3
	Total					29

FIFTH SEMESTER

Code	Course	Category	L	T	P/F W	Credit Units
BAP 501	Philosophy of Religion	CC	3	0	0	3
BAP 502	Indian and western epistemology	CC	3	0	0	3
BAP 503	Research methodology	CC	3	0	0	3
BAP 504	Philosophy of Education	CC	3	0	0	3
BAP 505	Term Paper	NTCC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BAP 506	Yoga philosophy and Self Development	DE	3	1	0	4
BAP 507	Philosophy of Mind	DE				
AND 005	Anandam-V	NTCC	0	0	0	2
VALUE ADDED						
BCS 501	Communication Skills –III	VA	1	0	0	1
BSS 503	Behavioral Science-V (Individual, Society and Nation)	VA	1	0	0	1
Foreign Language-V (Select any One)		VA	2	0	0	2
FLN 501	French					
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
Open Elective		OE				3
Total						28

SIXTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BAP 601	Philosophy of Language	CC	3	0	0	3
BAP 602	Indian and western Metaphysics	CC	3	1	0	4
BAP 603	Philosophy of science, technology and spirituality	CC	3	0	0	3
BAP 604	Applied Ethics	CC	3	0	0	3
BAP 655	Dissertation	NTCC	0	0	0	9
DE Electives: Student has to select 1 course from the list of following DE electives						
BAP 606	Bio Ethics	DE	3	0	0	3
BAP 607	Reading Indian and western text of philosophy					
	Total					25

COURSE OUTCOMES

**AMITY SCHOOL OF LIBERAL ARTS(ASLA)
BA (Hons.) - PHILOSOPHY**



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF LIBERAL ARTS
(ASLA)**

Bachelor of Arts (Honours) – Political Science

Programme Code: BPS

12574

Duration – 3 Years Full Time

Programme Structure

Credits Summary

B.A. Political Science UG (3 years/ 6 semesters)							
Semester	Core Course CC	Domain Electives DE	Value Added Course VA	Open Electives OE	Non-Teaching Credit Courses (NTCC)	Anandam	Total
I	12	3	4	-	-	2	21
II	16	3	4	3	-	2	28
III	12	3	4	3	-	2	24
IV	12	3	4	3	5	2	29
V	12	3	4	3	-	2	24
VI	09	3	-	-	9	-	21
Total	73	18	20	12	14	10	147

Core	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Non - Teaching Credit Courses (NTCC)	NTCC

Program Specific Outcomes (PSOs)

- Provide students with combination of theoretical and pragmatic knowledge of the political environment.
- Generate rational and balanced thinking after proper look into pros and cons of an issue and how this impacts globally and domestic politics.
- Develop in students the ability to conceptualize the theories and aspects of the subject.
- To enable students to have a clear and deep understanding of political Science which shall expose them to the avenues of practical politics and administration.

Program Structure

AMITY SCHOOL OF LIBERAL ARTS(ASLA) BA (Hons.) - POLITICAL SCIENCE

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BPS 101	Indian Nationalism	CC	3	0	0	3
BPS 102	Basic Principles of Political Science	CC	3	0	0	3
BPS 103	Political Ideologies	CC	3	0	0	3
BPS 104	An Introduction to Political Theory	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BPS 105	Global Themes in Development and Politics	DE	3	0	0	3
BPS 106	Feminism :Theory and Practice	DE				
AND 001	Anandam-I	NTCC	0	0	0	2
VALUE ADDED						
BCS 101	English- I	VA	1	0	0	1
BSS 103	Behavioural Science I (Understanding Self for Effectiveness)	VA	1	0	0	1
Foreign Language-I (Select any One)			VA	2	0	2
FLN 101	French					
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
Total					0	21

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BPS 201	Indian Constitution	CC	3	0	0	3
BPS 202	Government and Politics in India	CC	3	0	0	3
BPS 203	State Politics in India	CC	3	0	0	3
BPS 204	Major World Constitutions	CC	3	0	0	3
EVS 001	Environment Studies	CC	4	0	0	4
DE Electives: Student has to select 1 course from the list of following DE electives						
BPS 205	Current Themes in Indian Politics	DE	3	0	0	3
BPS 206	Political Economy	DE	3	0	0	
AND 002	Anandam-II	NTCC	0	0	0	2
VALUE ADDED						
BCS 201	English-II	VA	1	0	0	1
BSS 203	Behavioural Science – II (Problem solving and creative thinking)	VA	1	0	0	1
Foreign Language-II (Select any One)						
FLN 201	French	VA	2	0	0	2
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
	Open Elective	OE				3
	Total					28

THIRD SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BPS 301	Indian Political Thought-I	CC	3	0	0	3
BPS 302	Western Political Thought- I	CC	3	0	0	3
BPS 303	Local Administration in India	CC	3	0	0	3
BPS 304	Public Administration -I	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BPS 305	Ambedkar and Dalit Movement	DE	3	0	0	3
BPS 306	Gandhi and His Political Philosophy	DE	3	0	0	
AND 003	Anandam-III	NTCC	0	0	0	2
VALUE ADDED						
BCS 301	Communication Skill –I	VA	1	0	0	1
BSS 303	Behavioral Science III (Interpersonal Communication & Relationship Management)	VA	1	0	0	1
Foreign Language-III (Select any One)						
FLN 301	French	VA	2	0	0	2
FLG 301	German					
FLS 301	Spanish					
FLC 301	Chinese					
	Open Elective	OE				3
	Total					24

FOURTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BPS 401	Indian Political Thought-II	CC	3	0	0	3
BPS 402	Western Political Thought –II	CC	3	0	0	3
BPS 403	International Relations –I	CC	3	0	0	3
BPS 404	Research Methodology	CC	3	0	0	3
BPS 405	Internship	NTTC	0	0	0	5
DE Electives: Student has to select 1 course from the list of following DE electives						
BPS 406	Religion and Politics in India	DE	3	0	0	3
BPS 407	Vivekanand and Vedanta	DE	3	0	0	
BPS 408	Political Violence : Concepts and Trends	DE	3	0	0	
AND 004	Anandam-IV	NTCC	0	0	0	2
VALUE ADDED						
BCS 401	Communication Skills –II	VA	1	0	0	1
BSS 403	Behavioral Science-IV Group Dynamics and Team Building	VA	1	0	0	1
Foreign Language-IV (Select any One)						
FLN 401	French	VA	2	0	0	2
FLG 401	German					
FLS 401	Spanish					
FLC 401	Chinese					
	Open Elective	OE				3
	Total					29

FIFTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit Units
BPS 501	International Relations- II	CC	3	0	0	3
BPS 502	Public Administration-II	CC	3	0	0	3
BPS 503	India's Foreign Policy	CC	3	0	0	3
BPS 504	Media and Politics in India	CC	3	0	0	3
DE Electives: Student has to select 1 course from the list of following DE electives						
BPS 505	Reading Karl Marx	DE	3	0	0	3
BPS 506	Civil Society in India	DE	3	0	0	
AND 005	Anandam-V	NTCC	0	0	0	2
VALUE ADDED						
BCS 501	Communication Skills –III	VA	1	0	0	1
BSS 503	Behavioral Science-V Individual, Society and Nation	VA	1	0	0	1
Foreign Language-V (Select any One)						
FLN 501	French	VA	2	0	0	2
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
	Open Elective	OE				3
Total						24

SIXTH SEMESTER

Code	Course	Category	L	T	P/F W	Credit Units
BPS 601	Comparative Government and Politics	CC	3	0	0	3
BPS 602	Modern Political Analysis	CC	3	0	0	3
BPS 603	Human Rights in Comparative Perspective	CC	3	0	0	3
BPS 604	Dissertation	NTTC	0	0	0	9
DE Electives: Student has to select 1 course from the list of following DE electives						
BPS 605	Environmental Politics in India	DE	3	0	0	3
BPS 606	Social Movements in India	DE	3	0	0	
BPS 607	Growth of Communalism and Politics	DE	3	0	0	
	Total					21

COURSE OUTCOMES

AMITY SCHOOL OF LIBERAL ARTS(ASLA) BA (Hons.) - POLITICAL SCIENCE

FIRST SEMESTER

BPS 101- INDIAN NATIONALISM-

- CO 1- To introduce and familiarize students with the historical legacy of Indian Political history..
- CO 2-To make students understand the importance of National ideals .
- CO 3- To make students learn the different movements and procedures which led to the establishment of present political system.
- CO 4-To develop adaptive understanding in students in regard to Indian Nationalistic philosophies.

BPS 102- BASIC PRINCIPLES OF POLITICAL SCIENCE

- CO 1- Establishing a cemented platform for students to learn the evolution and basic fundamentals of Political Science.
- CO 2-Upgrading analytical abilities to understand how the different concepts and theories in Political Science are used in empirical world..
- CO 3- Suiting the students with the new approaches which shall make them develop an interest in the subject and make them understand in deeper sense.
- CO 4- Students learn the basic fundamentals to be implemented in other areas of Political Science.

BPS 103- POLITICAL IDEOLOGIES

- CO 1 Analyze the impact of political ideologies on the behavior of state.
- CO 2- Examine the relationship between theoretical base of ideology and practical politics.
- CO 3- Examine the philosophical roots of various streams of political ideologies.
- CO 4- Examine how the state and people relationship is affected by political ideology.

BPS 104- AN INTRODUCTION TO POLITICAL THEORY

- CO 1- Establishing a cemented platform for students to learn basics of human values and its significance in human life.
- CO 2- Upgrading analytical abilities to understand how different aspects of political theory are important for a better human society.
- CO 3- Empowering the students with the new approaches which shall develop their interest in the subject and make them understand it in deeper sense.

- CO 4- Appreciating Students learning to the basic fundamentals of political theory and its different nuances and complexities and how different concepts of political theory help making better citizens and finally better society.

BPS 105- GLOBAL THEMES IN POLITICS AND DEVELOPMENT

- CO 1- Establishing a cemented platform for students to learn the evolution and liberalization, privatization and globalization.
- CO 2- Upgrading analytical abilities to understand how the different concepts and theories in Political Science are used in empirical world.
- CO 3- Suiting the students with the new approaches which shall make them develop an interest in the subject and make them understand in deeper sense.
- CO 4- Students learn the basic fundamentals to be implemented in other areas of economics, international relations and political science.

AND- ANANDAM

- CO 1- Awareness and empathy regarding community issues
- CO 2- Interaction with the community and impact on society
- CO 3- Interaction with mentor and development of Student teacher relationship
- CO 4- Interaction among students, enlarge social network
- CO 5- Cooperative and Communication skills and leadership qualities
- CO 6- Critical thinking, Confidence and Efficiency

BCS 101- ENGLISH

- CO 1- Awareness and empathy regarding community issues
- CO 2- Interaction with the community and impact on society
- CO 3- Interaction with mentor and development of Student teacher relationship
- CO 4- Interaction among students, enlarge social network
- CO 5- Cooperative and Communication skills and leadership qualities
- CO 6- Critical thinking, Confidence and Efficiency

BSS 104- BEHAVIOURAL SCIENCE

- CO 1- Demonstrate awareness of self and the process of self-exploration.
- CO 2- Demonstrate knowledge of strategies for developing a healthy self-esteem.
- CO 3- Recognize the importance of attitudes and its effect on personality.
- CO 4- Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FLN 101- FRENCH

- CO 1 Identify and express in French vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in French
- CO 4 Narrate clearly ideas, themes in simple standard French

FLG 101 – GERMAN

- CO 1 Identify and express in German vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in German
- CO 4 Narrate clearly ideas, themes in simple standard German

FLS 101- SPANISH

- CO 1 Identify and express in Spanish vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in Spanish
- CO 4 Narrate clearly ideas, themes in simple standard Spanish

FLC 101- CHINESE

- CO1 Students shall be able to read, write, and speak approximately 100 New Chinese words and understand basic grammar points.
- CO2 Students shall be able to interpret words, phrases, and sentences of day-to-day conversation related to hobbies and abilities, gratitude, apology, welcome, time, weather, and directions.
- CO3 Students shall be able to write Chinese characters, simple sentences, and a paragraph on a simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
- CO4 Students shall be able to communicate with Chinese-speaking people using words, phrases, and sentences related to hobbies and abilities. Express gratitude, apology, and welcome.

SECOND SEMESTER

BPS 201- INDIAN CONSTITUTION

- CO 1- Establishing a cemented platform for students to learn the evolution and basic fundamentals of Indian Constitution.
- CO 2- Upgrading analytical abilities to understand how the different concepts and theories in Indian Constitution are used in empirical world..
- CO 3- Suiting the students with the new approaches which shall make them develop an interest in the subject and make them understand in deeper sense.
- CO 4- Students learn the basic fundamentals from Indian Constitution to be implemented in other areas of Political Science.

BPS 202- GOVERNMENT AND POLITICS IN INDIA

CO 1- Developing inquisitive nature among students to learn the evolution of the Indian Political System.

CO 2- Upgrading analytical abilities to understand how the Indian Political System evolved.

CO 3- Enriching the students with practical approach for studying theoretical aspects of Indian Political System.

CO 4- Students learn to manage the questions and queries of them on active questions as well as the basic concepts.

BPS 203- STATE POLITICS IN INDIA

- CO 1- Establishing a cemented platform for students to learn the evolution and basic fundamentals of state politics.
- CO 2- Upgrading analytical abilities to understand how the different concepts and theories in state politics are used in empirical world..
- CO 3- Suiting the students with the new approaches which shall make them develop an interest in the subject and make them understand in deeper sense.
- CO 4- Students learn the basic fundamentals of nexus between state politics and national politics.

BPS 204- MAJOR WORLD CONSTITUTIONS

- CO 1- To introduce and familiarize students with the historical and ideological aspect of various world constitutions
- CO 2- To make students understand the key features of world constitutions.

- CO 3- To make students learn the different procedures involved in making laws according to different constitutions of the world
- CO 4- To develop adaptive understanding in students in regard to ideological and political ideas behind the various salient features of world constitutions

BPS 205 – CURRENT THEMES IN INDIAN POLITICS

CO 1- Developing inquisitive nature among students to learn the evolution of the Indian Political System.

CO 2- Upgrading analytical abilities to understand how the Indian Political System evolved.

CO 3- Enriching the students with practical approach for studying theoretical aspects of Indian Political System.

CO 4- Students learn to manage the questions and queries of them on active questions as well as the basic concepts.

EVS 001 – ENVIRONMENTAL STUDIES

- CO 1 - Students will learn about flora and fauna and other environment issues.
- CO 2 - Students will learn about their own surroundings and habitat.
- CO 3 – Students will be able to understand the importance of protection and conservation and conservation of our environment.
- CO 4 - Student will gain better understanding of their own environment .

BCS 201 ENGLISH

CO 1 Participate in conversation and in small- and whole-group discussion.

CO 2 Explore and use English as medium of communication in real life situation.

CO 3 Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson.

CO 4 Identify features of a reading textbook and utilize them as needed.

CO 5 Prepare and deliver organized presentations in small groups and to whole class.

CO 6 Apply sentence mechanics and master spelling of high frequency words

BSS 203 BEHAVIOURAL SCIENCE

CO 1- Recognize the relation critical thinking with various mental processes.

CO 2- Identify hindrance to problem solving process

CO 3 – Analyze the steps in problem solving process
CO 4- Create Plan of action applying creative thinking

FLN 201- FRENCH

- CO 1 Identify and express in French vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in French
- CO 4 Narrate clearly ideas, themes in simple standard French

FLG 201 – GERMAN

- CO 1 Identify and express in German vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in German
- CO 4 Narrate clearly ideas, themes in simple standard German

FLS 201- SPANISH

- CO 1 Identify and express in Spanish vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in Spanish
- CO 4 Narrate clearly ideas, themes in simple standard Spanish

FLC 201- CHINESE

- CO1 Students shall be able to read, write, and speak approximately 100 New Chinese words and understand basic grammar points.
- CO2 Students shall be able to interpret words, phrases, and sentences of day-to-day conversation related to hobbies and abilities, gratitude, apology, welcome, time, weather, and directions.
- CO3 Students shall be able to write Chinese characters, simple sentences, and a paragraph on a simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
- CO4 Students shall be able to communicate with Chinese-speaking people using words, phrases, and sentences related to hobbies and abilities. Express gratitude, apology, and welcome.

AND 002 ANANDAM

- CO 1- Awareness and empathy regarding community issues
- CO 2- Interaction with the community and impact on society
- CO 3- Interaction with mentor and development of Student teacher relationship
- CO 4- Interaction among students, enlarge social network
- CO 5- Cooperative and Communication skills and leadership qualities
- CO 6- Critical thinking, Confidence and Efficiency

THIRD SEMESTER-

BPS 301- INDIAN POLITICAL THOUGHT

- CO 1-Developing inquisitive nature among students to learn the evolution of the Political Philosophy in the Indian Political Thought .
- CO 2-Upgrading analytical abilities to understand how the philosophies contribute in framing of Political Theories and concepts.
- CO 3- Enriching the students with philosophical , idealistic and imaginative approach for studying the Political Science and Political Philosophy.
- CO 4- Students learn the implementation of such political philosophies in global Political world.

BPS 302 – WESTERN POLITICAL THOUGHT

- CO 1-Developing inquisitive nature among students to learn the evolution of the Political Philosophy in the western world..
- CO 2-Upgrading analytical abilities to understand how the philosophies contribute in framing of Political Theories and concepts.
- CO 3- Enriching the students with philosophical , idealistic and imaginative approach for studying the Political Science and Political Philosophy.
- CO 4- Students learn the implementation of such political philosophies in global Political world.

BPS 303- LOCAL ADMINISTRATION IN INDIA

- CO 1- Establishing a cemented platform for students to learn basics of local administration and important institutions which contribute to better governance.
- CO 2-Upgrading analytical abilities to understand how different stakeholders play its role and coordinate with other related agencies.
- CO 3- Empowering the students with the new approaches which shall develop their interest in the subject and make them understand it in deeper sense.

- CO 4-Appreciating Students learning to the basic fundamentals of governance at the grassroots level and its different nuances and complexities.

BPS 304 – PUBLIC ADMINISTRATION

- CO 1- Establishing a cemented platform for students to learn basics of Public Administration as a discipline and how it has evolved over the period of time.
- CO 2-Upgrading analytical abilities to understand how different theories of administration enables better administration and governance.
- CO 3- Empowering the students with the new approaches which shall develop their interest in the subject and make them understand it in deeper sense.
- CO 4-Appreciating Students learning to the basic fundamentals of governance and administration and its different nuances and complexities.

BPS 306- GANDHI AND HIS POLITICAL PHILOSOPHY

- CO 1- To introduce and familiarize students with the historical legacy of Gandhian thought in Indian politics
- CO 2-To make students understand the importance of Gandhian philosophy .
- CO 3- To make students learn the different ideas and concepts which are integral part of Gandhian political philosophy and thought
- CO 4-To develop adaptive understanding in students in regard to Gandhian philosophy and its relevance in current times
-

AND 003 – ANANDAM

- CO 1 Awareness and empathy regarding community issues
- CO 2 Interaction with the community and impact on society
- CO 3 Interaction with mentor and development of Student teacher relationship
- CO 4 Interaction among students, enlarge social network
- CO 5 Cooperative and Communication skills and leadership qualities
- CO 6 Critical thinking, Confidence and Efficiency

BSS 304 BEHAVIOURAL SCIENCE

- CO 1 Demonstrate knowledge of strategies for developing a healthy interpersonal communication.
- CO 2 Recognize the importance of transactional analysis, script analysis.
- CO 3 Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management.
- CO 4 Enhance personal effectiveness and performance through effective interpersonal communication.

FLN 301- FRENCH

- CO 1 Identify and express in French vocabulary and grammar norms.

- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in French
- CO 4 Narrate clearly ideas, themes in simple standard French

FLG 301 – GERMAN

- CO 1 Identify and express in German vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in German
- CO 4 Narrate clearly ideas, themes in simple standard German

FLS 301- SPANISH

- CO 1 Identify and express in Spanish vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in Spanish
- CO 4 Narrate clearly ideas, themes in simple standard Spanish

FLC 301- CHINESE

- CO1 Students shall be able to read, write, and speak approximately 100 New Chinese words and understand basic grammar points.
- CO2 Students shall be able to interpret words, phrases, and sentences of day-to-day conversation related to hobbies and abilities, gratitude, apology, welcome, time, weather, and directions.
- CO3 Students shall be able to write Chinese characters, simple sentences, and a paragraph on a simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
- CO4 Students shall be able to communicate with Chinese-speaking people using words, phrases, and sentences related to hobbies and abilities. Express gratitude, apology, and welcome.

FOURTH SEMESTER

BPS 401- INDIAN POLITICAL THOUGHT -II

- CO 1- Establishing a cemented platform for students to learn the evolution and basic ideologies of Political Thinkers.
- CO 2-Upgrading analytical abilities to understand how the different concepts and theories in Political thinkers are used in empirical world..

- CO 3- Suiting the students with the new approaches which shall make them develop an interest in the subject and make them understand in deeper sense.
- CO 4- Students learn the basic fundamentals to be implemented in other areas of Political Science.

BPS 402- WESTERN POLITICAL THOUGHT-II

- CO 1- Establishing a cemented platform for students to learn the evolution and basic ideologies of Political Thinkers.
- CO 2-Upgrading analytical abilities to understand how the different concepts and theories in Political thinkers are used in empirical world..
- CO 3- Suiting the students with the new approaches which shall make them develop an interest in the subject and make them understand in deeper sense.

CO 4- Students learn the basic fundamentals to be implemented in other areas of Political Science

BPS 403 – INTERNATIONAL RELATIONS

- CO 1- To introduce and familiarize students with the nature and scope of International Relations
- CO 2- To make students understand the key theories involved in the conduct of International relations.
- CO 3- To make students learn the history of world politics , especially that of war and peace.
- CO 4- To develop adaptive understanding in students in regard to key concepts and ideas of International relations

BPS 404- RESEARCH METHODOLOGY

CO 1- Understand the theoretical foundations of statistical analysis;

CO 2- Develop quantitative skills required for empirical research;

CO 3- Learn how to apply statistical and econometric methods on real-world data;

CO 4- Finally, understand when and how to use the methods most appropriately for their research

BPS 407 – VIVEKANADA AND VEDANTA

CO 1- Developing analytical abilities to understand the teachings of Vedanta and the philosophical backbone of Hinduism.

CO 2- Enriching the students with philosophical, idealistic and imaginative approach for studying the different types of yoga.

CO 3- Developing inquisitive nature among students to learn the teachings, contribution and philosophy of Swami Vivekananda.

CO 4- Enhancing the knowledge about Ramkrishna Paramhans and work done by Sister Nivedita.

AND 004- ANADAM-

CO 1- Awareness and empathy regarding community issues

CO 2 Interaction with the community and impact on society

CO 3 Interaction with mentor and development of Student teacher relationship

CO 4 Interaction among students, enlarge social network

CO 5 Cooperative and Communication skills and leadership qualities

CO 6 Critical thinking, Confidence and Efficiency

BCS 401- COMMUNICATION SKILLS

CO 1 Identify steps to professional communication

CO 2 Identify the key components of meeting, agendas and meeting minutes

CO 3 Understand the key skills and behaviors required to facilitate a group discussion/presentation

CO 4 Polish current affairs& rapport building

BSS 404 BEHAVIOURAL SCIENCE

CO 1 Identify the basis of interpersonal relationship.

CO 2 Describe the importance of interpersonal relationship and bridging individual differences.

CO 3 Recognize the development and strategies for effective interpersonal relationship.

CO 4 Explain and apply the theories of relationship concepts of impression management.

FLN 401- FRENCH

- CO 1 Identify and express in French vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in French
- CO 4 Narrate clearly ideas, themes in simple standard French

FLG 401 – GERMAN

- CO 1 Identify and express in German vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in German
- CO 4 Narrate clearly ideas, themes in simple standard German

FLS 401- SPANISH

- CO 1 Identify and express in Spanish vocabulary and grammar norms.
- CO 2 Interpret different types of texts as well as cultural ideas and themes
- CO 3 Demonstrate comprehension of nuance between script and sound in Spanish
- CO 4 Narrate clearly ideas, themes in simple standard Spanish

FLC 401- CHINESE

- CO1 Students shall be able to read, write, and speak approximately 100 New Chinese words and understand basic grammar points.
- CO2 Students shall be able to interpret words, phrases, and sentences of day-to-day conversation related to hobbies and abilities, gratitude, apology, welcome, time, weather, and directions.
- CO3 Students shall be able to write Chinese characters, simple sentences, and a paragraph on a simple topic like 'Self Introduction' and dialogue writing on "Conversation between two friends exchanging Personnel Information".
- CO4 Students shall be able to communicate with Chinese-speaking people using words, phrases, and sentences related to hobbies and abilities. Express gratitude, apology, and welcome.

FIFTH SEMESTER

BPS 501- INTERNATIONAL RELATIONS- II

- CO 1- To introduce and familiarize students with the key concepts of International Relations
- CO 2-To make students understand the key theories involved in the conduct of International relations.
- CO 3- To make students learn the key concepts and trends in world politics
- CO 4-To develop adaptive understanding in students in regard to the important concepts and ideas of International relations

BPS 502 PUBLIC ADMINISTRATION II

- CO 1- Establishing a cemented platform for students to learn advance version of Public Administration as a discipline and how it has been able to enable better administration and governance over the period of time.
- CO 2- Upgrading analytical abilities to understand how different theories of administration help better administration and governance.

- CO 3- Empowering the students with the new approaches which shall develop their interest in the subject and make them understand it in deeper sense.
- CO 4- Appreciating Students learning to the basic fundamentals of governance and administration and its different nuances and complexities and how different thinkers of Public Administration has viewed it.

BPS 503 – INDIA’S FOREIGN POLICY

- CO 1-Developing analytical nature among students to learn the evolution of the ideals of Indian Foreign Policy.
- CO 2-Upgrading understanding abilities to understand how the domestic foreign policy can impact the international environment.
- CO 3- Exposing the students with the fundamentals in India’s Foreign Policy in past as well in present times.
- CO 4- Students learn the implementation of theoretical and idealistic values in pragmatic world.

BPS 504 – MEDIA AND POLITICS IN INDIA

- CO 1- To introduce and familiarize students with the nature and evolution of print and electronic
- CO 2-To make students understand the key roles, functions and influences of Media on various political processes.
- CO 3- To make students learn the history of development of mass media and their impact on political power.
- CO 4-To develop adaptive understanding in students in regard to the links between media and politics

BPS 506- CIVIL SOCIETY IN INDIA

CO 1- Establishing a cemented platform for students for students to learn basics of the very concept of civil society and its evolution and different other aspects.

CO 2- Upgrading analytical abilities to understand how different other aspects of civil society are important.

CO 3- Empowering the students with the new approaches which shall develop their interest in the subject and make them understand it in deeper sense.

CO 4- Appreciating students learning to the basics fundamentals of civil society and its different nuances and complexities and how different civil society organizations empower citizens.

- CO 1 Awareness and empathy regarding community issues
- CO 2 Interaction with the community and impact on society
- CO 3 Interaction with mentor and development of Student teacher relationship
- CO 4 Interaction among students, enlarge social network
- CO 5 Cooperative and Communication skills and leadership qualities
- CO 6 Critical thinking, Confidence and Efficiency

BCS 501- COMMUNICATION SKILLS

- CO 1 Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
- CO 2 Demonstrate the ability to analyse a problem and devise a solution in a group.
- CO 3 Demonstrate proficiency in the use of written communication.
- CO 4 Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 504 BEHAVIOURAL SCIENCE

- CO 1 Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
- CO 2 Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
- CO 3 Recognize different types of human rights and its importance.
- CO 4 Identify Indian values taught by different religions.
- CO 5 Identify long term goals and recognize their talent, strengths and styles to achieve them.

FLN 501 FRENCH

- CO 1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

FLG 501 GERMAN

- CO 1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

FLS 501 SPANISH

- CO 1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

FLC 501 CHINESE

- CO 1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

SIXTH SEMESTER

BPS 601 COMPARATIVE GOVERNMENT AND POLITICS

- CO 1- Establishing a cemented platform for students to learn the importance of comparative studies in Political Science
- CO 2-Upgrading analytical abilities to understand how the different concepts and theories in Comparative Politics are used in empirical world..
- CO 3- Suiting the students with the new approaches which shall make them develop an interest in the subject and make them understand in deeper sense.
- CO 4- Students learn the basic fundamentals to be implemented in other areas of Political Science.

BPS 602 MODERN POLITICAL ANALYSIS

CO 1- Developing inquisitive nature among students to learn the evolution of the political theory.

CO 2- Upgrading analytical abilities to understand how the theories contributes in framing of Political Systems and concepts

CO 3- Enriching the students with analytical abilities , critical abilities and rational approach for studying the political science.

CO 4- students learn the implementation of such political theories in global Political World.

BPS 603 – HUMAN RIGHTS IN COMPARATIVE PERSPECTIVE

CO 1- Developing analytical nature among students to learn the evolution of the ideals of human rights.

CO 2- Upgrading understanding abilities to understand how the human rights have taken central stage.

CO 3- Exposing the students with the fundamentals in human rights.

CO 4- Students learn the implementation of theoretical and idealistic values in pragmatic world.

BPS 604- DISSERTATION

CO 1- Students should be able to define and select a research problem.

CO 2- Analyse the primary characteristics of quantitative research and qualitative research.

CO 3- Identify a research problem in a study and learn how to define and solve the problem through research study.

CO 4- Students should be able to distinguish a purpose statement , a research question or hypothesis and a research objective

CO 5- Examine and identify the independent and dependent variables and research report writing.

BPS 607- GROWTH OF COMMUNALISM AND POLITICS

CO 1- Developing analytical nature among students to learn the evolution of the ideals of human rights.

CO 2- Upgrading understanding abilities to understand how the human rights have taken central stage.

CO 3- Exposing the students with the fundamentals in human rights.

CO 4- Students learn the implementation of theoretical and idealistic values in pragmatic world.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF COMMUNICATION (ASCO)

Bachelor of Arts (B.A.)

Programme Outcome (PO)

PO1: To acquire capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems.

PO2: To apply analytical thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, and beliefs on the basis of empirical evidence.

PO3: To develop a sense of inquiry so as to ask relevant or appropriate questions related to problem solving, defining problems, formulating hypotheses, testing hypotheses.

PO4: To get acquainted with social transactions, social relations, social formations, social control, social values and culture.

PO5: To realize human values and acquire critical temper and creative ability.



AMITY UNIVERSITY
R A J A S T H A N

**AMITY SCHOOL OF COMMUNICATION
(ASCO)**

**Bachelor of Arts
(Journalism & Mass Communication)**

Programme Code: BJM

12798

Duration- 3 Years Full Time

BA (J&MC)

Programme Structure

Credits Summary

BJMC (3 years/ 6 semesters)							
Semester	(CC)	Domain Electives (DE)	VA	Open Electives(OE)	NTCC	Anandam	Total
I	21	-	4	-	0	2	27
II	15	3	4	3	0	2	27
III	16	3	4	3	3	2	31
IV	15	3	4	3	0	2	27
V	9	3	4	3	6	2	27
VI	3	3	-	-	16	-	22
Total	79	15	20	12	25	10	161

* CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC-Non Teaching Credit Courses

Program Specific Outcomes (PSOs)

1. Understand the theoretical aspects of functions, roles, requirements and opportunities in various areas under the broad umbrella of media and communication field;
2. Identify the professional skill sets required in various discipline of mass communication along with comprehensive insight into the concepts, strategies, tools and techniques engaged into the development of media products ;
3. Demonstrate specialized knowledge and skill set in creating and developing content for mass dissemination through various traditional and new age media platforms;
4. Exhibit expertise in multiple sub-fields of mass communication catering the professional requirements of media industry across the globe;
5. Employ the theoretical knowledge set; advanced tools and techniques to research, evaluate, analyze and improve the contemporary techniques and trends in media practices.

Program Structure

AMITY SCHOOL OF COMMUNICATION (ASCO) **Bachelor of Arts - (Journalism & Mass Communication)**

SEMESTER I

Code	Course	Category	L	T	P/FW	Credit Units
BJM 101	Print Journalism	CC	2	-	2	3
BJM 102	Fundamentals of Advertising	CC	2	1	-	3
BJM 103	Introduction to Visual Communication	CC	2	1		3
BJM 104	Computer Applications - I	CC	2	-	2	3
BJM 105	Understanding Mass Communication	CC	2	1	-	3
BJM 106	Indian Political System	CC	3	-	-	3
BJM 107	News & Contemporary Issues	CC	1	2	-	3
BCS 101	English	VA	1	-	-	1
BSS 103	Behavioral Science I (Understanding Self for Effectiveness)	VA	1	-	-	1
FLN 101 FLG101 FLS 101 FLC101	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
AND001	Anandam-I	NTCC	-	-	-	2
Total						27

SEMESTER II

Code	Course	Category	L	T	P/FW	Credit Units
BJM 201	Advertising Principles & Practices	CC	3	-	-	3
BJM 202	Basic Photography	CC	2		2	3
BJM 203	Television Production	CC	2	-	2	3
BJM 204	Radio Journalism	CC	2	-	2	3
BJM 205	Computer Applications – II	CC	1	1	2	3
BCS 201	English	VA	1	-	-	1
BSS 203	Behavioral Science II	VA	1	-	-	1
FLN 201 FLG201 FLS 201 FLC201	Foreign Language - II French German Spanish Chinese	VA	2	-	-	2
	Open Elective II	OE				3
BJM 206	Portfolio Development- Print	DE	3	-	-	3
BJM 207	Writing for Media		3	-	-	
AND002	Anandam-II	NTCC	-	-	-	2
Total						27

SEMESTER III

Code	Course	Category	L	T	P/FW	Credit Units	Remarks
BJM 301	Television Journalism	CC	2	-	2	3	
BJM 302	Computer Graphics, Animation & Sound	CC	1	1	2	3	
BJM 303	Public Relations	CC	2	1	-	3	
BJM 304	Digital Photography	CC	2	-	2	3	
EVS 001	Environment Studies	CC	4	-	-	4	
BJM 305	Term Paper (Evaluation)	NTCC	-	-	-	3	
BCS 301	Communication Skills – I	VA	1	-	-	1	
BSS 303	Behavioral Science III (Interpersonal Communication & Relationship Management)	VA	1	-	-	1	
FLN 301 FLG301 FLS 301 FLC301	Foreign Language - III French German Spanish Chinese	VA	2	-	-	2	
	Open Elective III	OE				3	
BJM 306	Media Planning and Buying	DE	2	1	-	3	
BJM 307	Media Management	DE	2	-	2	3	
AND003	Anandam-III	NTCC	-	-	-	2	
Total						31	

SEMESTER IV

Code	Course	Category	L	T	P/FW	Credit Units	Remarks
Code	Course	Category	L	T	P/FW	Credit Units	
BJM 401	Film Theory & Practice – I	CC	2	-	2	3	
BJM 402	Basics of Research	CC	2	1		3	
BJM 403	Online Journalism	CC	2	1	-	3	Brought forward from Semester Vth
BJM 404	Advertising Design	CC	1	1	2	3	
BJM 405	Corporate Communication	CC	2	-	2	3	
BCS 401	Communication Skills – II	VA	1	-	-	1	
BSS 403	Behavioural Science – IV	VA	1	-	-	1	
FLN 401 FLG401 FLS 401 FLC401	Foreign Language - IV French German Spanish Chinese	VA	2	-	-	2	
	Open Elective IV	OE				3	
BJM 406	Multimedia	DE	2	1	-	3	
BJM 407	Specialized Television Journalism		2	-	2		
AND004	Anandam-IV	NTCC	-	-	-	2	
Total						27	

SEMESTER V

Code	Course	Category	L	T	P/FW	Credit Units	Remarks
BJM 501	Advanced Research	CC	2	1	-	3	
BJM 502	Film Theory and Practice-II	CC	2	-	2	3	
BJM 503	Event Management	CC	2	-	2	3	
BCS 501	Communication Skills – III	VA	1	-	-	1	
BSS 503	Behavioral Science-V (Individual, Society and Nation)	VA	1	-	-	1	
FLN 501 FLG 501 FLS 501 FLC501	Foreign Language - V French German Spanish Chinese	VA	2	-	-	2	
	Open Elective V	OE				3	
BJM 504	Brand Management	DE	3	-	-	3	
BJM 505	Portfolio Development (Online Journalism)		-	-	-		
BJM 506	Digital Marketing		3	0	0		
BJM 550	Summer Project (Evaluation)	NTCC	-	-	-	6	
AND005	Anandam-V	NTCC	-	-	-	2	
Total						27	

SEMESTER VI

Code	Course	Category	L	T	P/FW	Credit Units
BJM 601	Internship	CC/FW	-	-	-	10
BJM 602	Media Laws and Ethics		3	-	-	3
BJM 603 BJM 604 BJM 605 BJM 606 BJM 607	<ul style="list-style-type: none"> • Professional Project (Specialization: (Any one) Professional Project (Print) Professional Project (Advertising) Professional Project (Public Relations & Events) Professional Project (Photography) Professional Project (Television Journalism) 	CC/FW	-	-	12	6
BJM 608	Professional Project (Film and Television Production)					
BJM 609	Professional Project (Social Media)					
BJM 610	Development Communication	DE	2	1	-	3
BJM 611	News & Current Affairs		2	1	-	
Total						22

COURSE OUTCOMES

AMITY SCHOOL OF COMMUNICATION (ASCO) BA(J&MC)

BJM 101 - Print Journalism

At the successful completion of this course you (the student) should be able to:

1. Investigate and understand the various news and current affairs to understand what is not often immediately apparent or known and learn the truth about them
2. Create rudimentary magazines or newspapers to communicate and illustrate your own ideas about events
3. Apply the knowledge and skills of reporting and editing to judge events or happenings around you.

BJM 102-Fundamental of Advertising

At the successful completion of this course you (the student) should be able to:

1. Student will get an insight and awareness about the concept, types and categories of Advertisement.
2. Student will be able to have an overview of the various aspects of advertising along with the functioning of advertising agencies.
3. Student will have an understanding the ethical aspects of Advertising.

BJM 103 - Introduction to Visual Communication

At the successful completion of this course you (the student) should be able to:

1. Understand the basic characteristics, strength and scope related to visual communication.
2. Understand that visual communication is a carrier of information.
3. To understand the historical trends and developments of visual communication.
4. Understand the concept of gaze, experience of images and elements of visual communication.

BJM 104 - Computer Applications-1

At the successful completion of this course you should be able to:

1. Demonstrate the hardware, software& multimedia applications.
2. Describe the concept of design & printing process.
3. Critically analyze the importance of Desktop Publishing in mass communication.
4. Design ads & promotion materials as per the theme& social awareness.
5. Apply knowledge of printing file formats, color modes and their picture quality.

BJM 105 - Understanding Mass Communication

At the successful completion of this course you (the student) should be able to:

1. Understand the basic aspects of mass communication.
2. Understand the traditional modes of communication.
3. To understand the strength and limitation of mass communication. Barriers to effective communication. And also understand the different theories of mass communication.
4. To be familiar with essential skills and techniques and also to know that a communicator professional becomes successful in the profession by keeping knowledge of mass media and related practices.

BJM 106 - Indian Political System

After the successful completion of this course the student should be:

1. Fully aware of the features of the Indian Constitution and key amendments.
2. Aware of the importance, role and responsibilities of the Indian Judiciary.
3. Informed about the bicameral nature of the Supreme legislative body (Parliament) and the differences between both the houses of the Parliament.
4. Familiar about the unicameral and bicameral nature of the State Legislatures.
5. Role and responsibilities of the President, Prime Minister, Chief Minister & Governor.
6. Conversant with the Indian electoral process.
7. Knowledgeable about the Indian political system, including the way political parties function and the political complications arising in India.

BJM 107 - NEWS AND CONTEMPORARY ISSUES

At the successful completion of this course you should be able to:

1. Understand the different aspects of news and contemporary issues,
2. Identify the various discourses based on news and contemporary issues along with comprehensive insight into the concepts and strategies.
3. Demonstrate specialized knowledge and skill set in creating and developing content for the various national issue discourses and its application in journalistic profession,
4. Exhibit expertise in multiple sub-fields of news and contemporary issues,
5. Employ and interpret various discourse based on news and contemporary issues.

BJM 201- Advertising Principles & Practices

At the successful completion of this course you (the student) should be able to:

1. Student will get an insight and awareness about the concept, principles and practices of Advertisement.
2. Student will be able to have an overview of the various practical aspects of advertising along with the functioning and various avenues of advertising agencies.
3. Student will have an understanding the ethical aspects of Advertising and Media plan.

BJM 202 - Basic Photography

At the successful completion of this course you (the student) should be able to:

5. Understand the basic technical aspects related to camera operation and handling as well display familiarity with history and background of photography.
6. Understand the significance and role of photography and the photographer in a society.
7. Demonstrate aperture, depth of field and shutter speed as well lighting techniques.
8. Display familiarity with essential skills and technical to knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

BJM 203 - Television Production

At the successful completion of this course you (the student) should have basic knowledge on:

1. Camera handling and shot composition for the studio setup.

2. Setting light for different ambience and desires.
3. Script writing and production plan for television medium.
4. Pre and post produce a program of their own choice.

BJM 204- Radio Journalism

At the successful completion of this course you (the student) should be able to:

1. Understand the basic characteristics, strength and limitations related to Radio.
2. Understand the evolution and growth pre-independence and post-independence of Radio.
3. To understand the present-day broadcasting: Private Radio, Public Radio, Community Radio and also be able to differentiate between AM and FM and their frequencies.
4. To understand and be familiar with the station structure.

be familiar with essential skills and techniques and also to know that a Radio professional becomes successful in the profession by keeping knowledge of Radio operation and related software and hardware.

BJM 205- Computer Application

At the successful completion of this course you should be able to:

1. Demonstrate various concepts of layout designing & advance image editing tools & their special features.
2. To design magazine & Stationery series.
3. To learn the importance of printing file formats, and print quality.
4. To learn colour modes & bit-depth as per the print requirement.
5. Design Ads & logos in vector software's.

BJM 206- Portfolio Development - Print

At the successful completion of this course you (the student) should be able to:

4. List and understand all the steps that are a must in actual production of a newspaper or magazine
5. Create rudimentary magazines or newspapers to communicate and illustrate your own ideas about events
6. Apply the knowledge and skills of reporting and editing to judge events or happenings around you.

BJM 301- Television Journalism

After the successful completion of this course; the students should be able to-

1. Understand the nature, characteristics and challenges of broadcast journalism along with the structure of newsroom and roles/responsibility of newsroom personnel.
2. Polish their writing and technical skill-set to prepare themselves as broadcast journalists
3. Exhibit their skills in the areas of newsgathering, writing, production, presentation.

4. Plan and execute the production of news programs independently and develop the content of broadcast quality.

BJM 302 - Computer Graphics Animation & Sound

At the successful completion of this course you should be able to:

1. Demonstrate the types of graphics, concepts of animation & their use in social awareness.
2. Concept of 2d & 3d animation & their working process & software working pattern.
3. Demonstrate the use of Symbol, tweening, key-frames animation on layers.
4. Demonstrate the use of sound & voiceover in any animation project.

BJM 303 - Public Relations

At the successful completion of this course you (the student) should be able to:

1. Comprehend and explain critically the facts related with the ever-increasing significance and role and functions of an effective and efficient Public Relations Department in an organization and describe the various important and contemporary techniques and practices employed in this field.
2. Identify the Essential Skills that a PR Professional possesses to be successful in the profession and apply them in your real-life situations.
3. Develop, Draft and justify the significance of various types of PR Writings Formats following all their typical technicalities.
4. Analyse and evaluate the relevance and utility of various PR Tools and Strategies applicable for different job situations and apply them in your real world.

BJM 304- Digital Photography

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to camera operation and handling as well display familiarity with history and background of photography.
2. Understand the significance and role of photography and the photographer in a society.
3. Demonstrate aperture, depth of field and shutter speed as well lighting techniques.
4. Display familiarity with essential skills and technical to knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

BJM 306 - Media Planning and Buying

At the successful completion of this course you (the student) should be able to:

1. Develop an in depth understanding of details of Media Planning process.
2. To understand the current trends and process in media planning
3. Understand the role, importance and limitation of various media platforms in the information dissemination.
4. Achieve deeper understanding of media platforms will best advertise your client's brand or product to its target audience

BJM 307 - Event Managment, Domain Elective

At the successful completion of this course you (the student) should be able to:

1. Visualize and explain how to create an event that achieves specific objectives for the host/client.

2. Design a Planning Process that incorporates Budgeting, Project Management, Communication and Evaluation Tools.
3. Develop an understanding of the various event elements (food and beverage, design, entertainment, site selection, back drop etc.) and how to cost-effectively employ them.
4. Understand the role of the Event Planner on site at the event, and the mindset necessary to oversee successful event coordination.

OLD- Environmental Science -001

At the successful completion of this course you (the student) should be able to:

1. Understand the importance, need and scope of the subject.
2. Evaluate local, regional and global environmental topics related to resource use and management.
3. Measure environmental variables and interpret results.
4. Interpret the results of scientific studies of environmental problems and propose solutions to these.
5. Implement “Sustainable development”, in day to day activities.

BJM 401- Film Theory & Practice-1

At the successful completion of this course you (the student) should be able to:

1. History of Film making worldwide
2. Understand how to produce documentary
3. Learn the different aspects of film promotion and funding
4. Understand the different types of theories related to film making
5. The deeper study of work done by acclaimed Film directors

BJM 402- Basics Of Research

At the successful completion of this course you (the student) should be able to:

1. To define research.
2. To learn the basics of research – basic concepts, nature, scope, trends.
3. Overview the process of media research- Qualitative and Quantitative methods.
4. To explain the relationship between theory and research.
5. Describe and compare the predominant research methods in journalism, media, and communication.

BJM 403- Media Management

At the successful completion of this course you (the student) should be able to:

1. To know about newspaper, television, internet, radio management.
2. To learn about media laws, ethics and function and the present status of various forms of media specially Internet and the new media
3. Use the features and concept of Media Management and Strategies.

4. Understand the relevance of Media Management.

BJM 404 - Advertising Design

At the successful completion of this course you should be able to:

1. Demonstrate various concepts of advertising design & stationery design.
2. To design Stationery series for own company with unique color codes
3. To learn the importance of file formats, and resolution as per the print quality.
4. To learn design of ads campaign & proper use of taglines.
5. To learn different types of ads & logos designing in software's.

BJM 405- Corporate Communication

At the successful completion of this course you (the student) should be able to:

1. Explain the meaning and purpose of corporate communication function in an organization namely: what it does and how the department contributes towards the building of brand image and a strong corporate reputation amongst the various stakeholder groups and the public at large.
2. List out the key elements and components of an effective Corporate Communication Strategy
3. Describe the effectiveness of a sound Communication Response Strategy to a Crisis situation.
4. Develop a clear understanding about the role and functions of a Corporate Communication Professional in an organization and the skills and qualities required by them to excel in the field.
5. Critically analyse the various issues and challenges faced by the professionals in the field of Corporate Communication.

BJM 406- Brand Management

At the successful completion of this course you (the student) should be able to:

1. Understand the importance of Brand Management.
2. Evaluate the role, importance and use of various aspects of Brand positioning.
3. Use the features and concept of Brand Strategies.
4. Understand the relevance of Building brand.

BJM 407- Specialized Television Journalism

After the successful completion of this course; the students should be able to-

5. Understand the nature, characteristics and challenges of broadcast journalism along with the structure of newsroom and roles/responsibility of newsroom personnel.
6. Polish their writing and technical skill-set to prepare themselves as broadcast journalists
7. Exhibit their skills in the areas of newsgathering, writing, production, presentation.

8. Plan and execute the production of news programs independently and develop the content of broadcast quality.

BJM 501- Advanced Research

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate critically the role and functions of various research methods, sampling strategies, tools, and important techniques of research.
2. Identify various research methods and understand the basic statistics of Research.
3. Differentiate and identify various methods and sampling strategies as well as learn about different statistical tools of data interpretation.
4. Execute various research activities and capable to narrate them in the form of a research report.
5. Critically analyse and evaluate the various research designs and methods of communication research and their practical implication in the field.

BJM 504- Online Journalism Open Elective

At the successful completion of this course you (the student) should be able to:

1. To provide practical scenarios related to digital media which enable them to work as digital media practitioners in the future.
2. To improve the verbal and nonverbal communication skills of the students through direct participation in various assignments.
3. To give the real time experience as a media practitioner through assignments which resemble the everyday work that is engaged by an online journalist.
4. To enable the students to improve their social skills, especially the ability to work in a team, through variety of group assignments.

BJM 505 - Multimedia

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of any creative topics.
2. Create the creative animation as per need.
3. Apply the motion, speed, Gravity etc. on animated objects.
4. Develop the showreel for best job.

BJM 506 - Portfolio Development -Online Journalism

At the successful completion of this course you (the student) should be able to:

1. List and understand all the steps that are a must in actual production of a newspaper or magazine and digital newspapers and magazines.
2. Create rudimentary magazines or newspapers to communicate and illustrate your own ideas about events
3. Apply the knowledge and skills of reporting and editing to judge events or happenings around you

4. It also helps then to understand the different between traditional media and digital media which is future.

BJM 507- Digital Marketing

At the successful completion of this course you (the student) should be able to:

1. Understand how to utilize the various digital market platforms.
2. Design a process highlighting latest digital marketing trends
3. Have an understanding of the various avenues of Search Engine Optimization.
4. Analyze and compare traditional vs digital marketing.

BJM 602- Media Laws & Ethics

At the successful completion of this course, you should be able to:

1. Demonstrate knowledge of media laws and the ethical considerations in following them
 2. To be able to apply their learning and knowledge in various ethical questions faced by the media.so as to do your work properly
 3. Understand the relation between media laws, ethics and morality and their need for building a just society

BJM 610 - Development Communication

After the successful completion of this course; the students should be able to-

1. Understand the nature, characteristics, and challenges of broadcast journalism along with the structure of newsroom and roles/responsibility of newsroom personnel.
2. Polish their writing and technical skill set to prepare themselves as broadcast journalists.
3. Exhibit their skills in the areas of newsgathering, writing, production, presentation.
4. Plan and execute the production of news programs independently and develop the content of broadcast quality.

BJM 610 - NATIONAL & INTERNATIONAL ISSUES & AFFAIRS

At the successful completion of this course, you should be able to:

1. Demonstrate knowledge of current affairs
2. To be able to write features, news articles on political, economic and social affairs on topics both national and international.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF COMMUNICATION
(ASCO)**

Bachelor of Arts (Film & Television Production)

Programme Code: BAF

12698

Duration- 3 Years Full Time

BA (F&TP)

Programme Structure

Credits Summary

BA (F&TP)							
(3 years/ 6 semesters)							
Semester	CC	Domain Electives (DE)	VA	Open Electives(OE)	NTCC	Anandam	Total
I	21	-	4	-	0	2	27
II	15	3	4	3	0	2	27
III	16	3	4	3	3	2	31
IV	15	3	4	3	0	2	27
V	9	3	4	3	6	2	27
VI	3	3	-	-	16	-	22
Total	79	15	20	12	25	10	161

CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work, NTCC – Non Teaching Core Course

Program Specific Outcomes (PSOs)

1. The students of BA (F&TP) after the completion of the programme would be able to demonstrate knowledge and understanding of multimedia tools & their use in designing & developing Projects & camera techniques & their technical feature aspects.
2. The students would be able to Demonstrate specialized knowledge and skill set in creating and developing content for Introduction to visual communication.
3. Understand the theoretical aspects of functions, roles, requirements and opportunities in various areas.
4. Exhibit expertise in multiple sub-fields of graphics & animation catering to the professional requirements of design industry.

Program Structure

AMITY SCHOOL OF COMMUNICATION (ASCO) **Bachelor of Arts - (Film & Television Production)**

SEMESTER-I

Code	Course	Category	L	T	P/F W	Total Credits	Contact Hours
BAF101	Cinema History I	CC	2	1	-	3	
BAF102	Storytelling and Creative Writing	CC	2	-	2	3	
BAF103	Audio Fiction Practice	CC	1	1	2	3	
BAF104	Introduction to Visual Communication	CC	3	-	-	3	
BAF105	Basics of Radio	CC	2	-	2	3	
BAF106	Media Readings and Workshop-Film	CC	1	1	2	3	
BAF107	State and Politics	CC	3	-	-	3	
	Open Electives						
	NO MINOR TRACK						
BCS 101	English	VA	1	-	-	1	
BSS 103	Behavioural Science I (Understanding Self for Effectiveness)	VA	1	-	-	1	
FLN 101	Foreign Language - I French	VA	2	-	-	2	
FLG101	German						
FLS 101	Spanish						
FLC101	Chinese						
AND001	Anandam-I	NTCC	-	-	-	2	
	Total					27	

SEMESTER-II

Code	Course	Category	L	T	P/F W	Total Credits	Contac t Hours
BAF201	Writing for Visuals	CC	2	1		3	
BAF202	Understanding Mass Communication	CC	2	1	-	3	
BAF203	Basics of Graphics Design	CC	1	1	2	3	
BAF204	Visualization and Photography	CC	2	-	2	3	
BAF205	Visual Practice	CC	2	-	2	3	
BAF206	Anchoring Skills for TV	DE	1	1	2	3	
BAF207	Portfolio Development (Graphics)	DE	-	2	2		
	Open Electives						
		OE				3	
BCS 201	English	VA	1	-	-	1	
BSS 203	Behavioral Science - I	VA	1	-	-	1	
FLN 201 FLG201 FLS 201 FLC201	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2	
AND002	Anandam-II	NTCC	-	-	-	2	
	Total					27	

SEMESTER-III

Code	Course	Category	L	T	P/F W	Total Credits	Contact Hours
BAF301	Camera Techniques	CC	1	1	2	3	
BAF302	Audiography and Sound	CC	1	1	2	3	
BAF303	Digital photography	CC	2	-	2	3	
BAF304	Basics Script Writing	CC	2	-	2	3	
EVS 001	Environmental Studies	CC	4	-	-	4	
BAF305	Advanced Graphics and Animation	DE	2	-	2	3	
BAF306	TV Journalism	DE	2	-	2	3	
BAF307	Term Paper	NTCC				3	
	Open Elective	OE	-	-	-	3	
BCS 301	Communication Skills-I	VA	1	-	-	1	
BSS 303	Behavioral Science-III (Interpersonal Communication & Relationship Management)	VA	1	-	-	1	
FLN 301	Foreign Language - I French	VA	2	-	-	2	
FLG301	German						
FLS 301	Spanish						
FLC301	Chinese						
AND003	Anandam-III	NTCC	-	-	-	2	
	Total					31	

SEMESTER-IV

Code	Course	Category	L	T	P/F W	Total Credits	Contact Hours
BAF401	Film and TV Production Basics	CC	2	-	2	3	
BAF402	Basics of Direction	CC	2	-	2	3	
BAF403	Editing Techniques for Film and TV	CC	1	1	2	3	
BAF404	Basics of Media Research	CC	2	1	-	3	
BAF405	Advanced Script Writing	CC	2	-	2	3	
BAF406	Introduction to Development Communication	DE	2	1	-	3	
BAF407	Portfolio Development (Documentary Film)	DE	2	-	2		
	Open Electives						
		OE				3	
BCS 401	Communication Skills-II	VA	1	-	-	1	
BSS 403	Behavioral Science – I	VA	1	-	-	1	
FLN 401	Foreign Language – I	VA	2	-	-	2	
FLG401	French						
FLS 401	German						
FLC401	Spanish Chinese						
AND004	Anandam-IV	NTCC	-	-	-	2	
	Total					27	

SEMESTER-V

Code	Course	Category	L	T	P/F W	Total Credits	Contact Hours	
BAF501	Documentary and Community Filmmaking	CC	2	-	2	3		
BAF502	Cinema Studies I	CC	2	1	-	3		
BAF503	AD and Corporate filmmaking	CC	2	-	2	3		
BAF504	Multi Media and Convergence	DE	1	1	2	3		
BAF505	Portfolio Development (Fiction)	DE	2	-	2			
BAF550	Summer Project	NTCC	-	-	-	6		
	Open Electives	OE				3		
BCS 501	Communication Skills-III	VA	1	-	-	1		
BSS 503	Behavioral Science-V (Individual, Society and Nation)	VA	1	-	-	1		
FLN 501	Foreign Language - I French	VA	2	-	-	2		
FLG501	German							
FLS 501	Spanish							
FLC501	Chinese							
AND005	Anandam-V	NTCC	-	-	-	2		
	Total						27	

SEMESTER-VI

Code	Course	Category	L	T	P/F W	Total Credits	Contact Hours
BAF601	Professional Project (any one)	NTCC	-	-	12	6	
BAF602	Professional Project (Short Documentary/Fiction)						
BAF603	Professional Project (Corporate Film) Professional Project (Public Service Ad-Making)						
BAF604	Internship	NTCC	-	-	-	10	
BAF605	Advanced Direction	CC	1	1	2	3	
BAF606	Cinema Studies II	DE	2	1		3	
BAF607	Film Appreciation	DE	1	1	2	3	
Total						22	

COURSE OUTCOMES

AMITY SCHOOL OF COMMUNICATION (ASCO)

BA(F&TP)

BAF 101- Cinema History-1 (Odd Sem)

At the successful completion of this course you (the student) should be able to:

1. Outline the important event in development of Cinema after 1950s both in Europe and India
2. Analyze cinema movements belonging to various periods during this span.
3. Interpret the conditions which create change and establishment of cinema as a powerful medium of communication
4. Assimilate differentiation and similarity in the journey of Indian cinema with European cinema during this period and Interpret and recognize the contribution of some important filmmakers during this era.

BAF 102 - Storytelling and Creative Writing

At the successful completion of this course you (the student) should be able to:

1. Demonstrate the art of oral storytelling.
2. Demonstrate and analyze various forms and structures of fiction and non-fiction
3. Will be able to recognise the different writing styles of professional writers and voices in fiction and non-fiction
4. Will be proficient in workshop process of self and group analysis and critique.
5. Identify literary influence and some aspects of literary history.

BAF 103 - Audio Fiction Practice

At the successful completion of this course you (the student) should be able to:

1. Understand the basic characteristics, strength and limitations related to audio broadcasting.
2. Understand the equipment's used for audio recording.
3. To understand about traditional broadcasting, podcasting and internet radio. Also, to understand the codes and ethics in radio broadcasting. And also know about community radio and public service.
4. To be familiar with essential skills and techniques and also to know that a Radio professional becomes successful in the profession by keeping knowledge of Radio operation and related software and hardware.

BAF 104 - Introduction to Visual communication

At the successful completion of this course you (the student) should be able to:

1. Define the Visual medium and its uses.
2. Identify the various analysis techniques, which in later stages of their course can be implemented,
3. Interpret films and other mediums of communication.
4. Demonstrate the students in making them understand the tools of Visual communication and the various techniques used in Communication strategies.

BAF 105 - Basics of Radio

At the successful completion of this course you (the student) should be able to:

1. Understand the basic characteristics, strength and limitations related to Radio.
2. Understand the medium: Invention and development of Radio.
3. To understand the how to record, edit and sequence the recorded news in radio.
4. To be familiar with essential skills and techniques and also to know that a Radio professional becomes successful in the profession by keeping knowledge of Radio operation and related software and hardware.

BAF 106- Media Readings and Workshop - Film

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to readings in films and display familiarity with history and background of films and different segments of films.
2. Understand the significance and role of media readings in films in a society.
3. Demonstrate familiarity with film making aspects such as premise, theme, plot, scene design, dialogues etc.
4. Display familiarity with essential skills and technical knowhow that a professional film maker must possess to be successful in the profession such as knowledge of camera operation and related software and hardware media readings, writings.
- 5.

BAF 107 - State and Politics

After the successful completion of this course the student should be:

1. Fully aware of the features of the Indian Constitution and key amendments.
2. Aware of the importance, role and responsibilities of the Indian Judiciary.
3. Informed about the bicameral nature of the Supreme legislative body (Parliament) and the differences between both the houses of the Parliament.
4. Familiar about the unicameral and bicameral nature of the State Legislatures.
5. Role and responsibilities of the President, Prime Minister, Chief Minister & Governor.
6. Conversant with the Indian electoral process.
7. Knowledgeable about the Indian political system, including the way political parties function and the political complications arising in India.

BAF 201- Writing For Visuals (Even Sem)

At the successful completion of this course you (the student) should be able to:

1. The unit will take them through the mechanism of how scripts evolve after the idea is identified.
2. The difference in scripting for between various audio-visual mediums and the associated nuances will be examined.
3. Students will be able to understand the processes required to develop a synopsis, a treatment and a first draft screenplay.

BAF 202- Understanding Mass Communication

At the successful completion of this course you (the student) should be able to:

1. To critically engage with the media and communication theories.
2. To understand how media and communication evolved historically as the result of the technological changes, various social and cultural practices.
3. To provide students sound understanding about various forms of the media and different types of communication with the help of relevant examples.
4. Understand the fundamental theories and models of communication.
5. Able to develop connection between real life situations and media theories.
6. Most importantly, to able to develop insights from media theories in the film production process.
7. Students will be introduced to the basic aspects of human communication and especially mass communication.

BAF 203- Basics of Graphics Design

At the successful completion of this course, you should be able to:

1. Demonstrate various concepts of Graphic Designing & basics of image editing tools & their features.
2. To design Stationery series for own company.
3. To learn design principles & their importance in graphic designing.
4. To learn color modes & bit-depth and file formats as per the print requirement.
5. To Design Ads & Logos in vector software's.

BAF 204 - Visualization & Photography

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to camera operation and handling as well display familiarity with film and television still.
2. Understand the significance and role of photography as visual medium.
3. Demonstrate workflow and knowledge about aperture, depth of field and shutter speed as well lighting techniques required in film industry and television industry.
4. Display familiarity with essential skills and technical knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

BAF 205 - Visual Practice

At the successful completion of this course you (the student) will be able to:

- Understand the visual perception and visual map behind any visual elements based on the designing principles.
- Make notes or doodle the information they are looking around in their daily life both inside and outside the campus.
- Mind map their thought process for their own understanding and can able to do a script work on their own.
- Design a portfolio with their own contents, doodled works, electronic references, news cuttings using the designing principle.

BAF 207- Portfolio Development-Graphic

At the successful completion of this course you (the student) should be able to:

1. Demonstrate various types of creative Designing like TV advertisement & film posters along with some image editing tools.
2. To design Corporate Stationery series for any new brand.
3. To learn use of design principles & use of elements in creative designing.
4. To learn use of color modes & bit-depth along with file formats as per need.
5. To learn major difference in Vector & Raster graphic & their software.

BAF 301- Camera Techniques (ODD Semester)

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to camera operation and handling as well display familiarity with history and background of photography.
2. Understand the significance and role of photography and the photographer in a society.
3. Demonstrate aperture, depth of field and shutter speed as well lighting techniques.
4. Display familiarity with essential skills and technical to knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

BAF 302- Audiography and Sound

At the successful completion of this course, you should be able to:

1. Investigate all types of sound effects used in audio-visual production.
2. Develop the technical knowledge on general audio and sound micing techniques, including the handling of common audio problems.
3. Apply creativity skills to make various audio-visual programmes.
4. Create own audio-visual project using various sound effects.

BAF 303 - Digital Photography

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to camera operation and handling as well display familiarity with history and background of photography.
2. Understand the significance and role of photography and the photographer in a society.
3. Demonstrate aperture, depth of field and shutter speed as well lighting techniques.
4. Display familiarity with essential skills and technical knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

BAF 304 - Basics Script Writing

At the successful completion of this course you (the student) should be able to:

1. Investigate the secret of a successful writer for TV, Film
2. Create original scripts with good characterization, sequence, continuity, dialogues
3. Apply the different theories and models to the writing to make it a good piece of creative writing and knack of analyzing different script from different genre.

BAF 306- Television Journalism

After the successful completion of this course; the students should be able to-

1. Understand the nature, characteristics and challenges of broadcast journalism along with the structure of newsroom and roles/responsibility of newsroom personnel.
2. Polish their writing and technical skill-set to prepare themselves as broadcast journalists
3. Exhibit their skills in the areas of newsgathering, writing, production, presentation .
4. Plan and execute the production of news programs independently and develop the content of broadcast quality.

BAF 401- Film and Television Basics (Even Semester)

At the successful completion of this course you (the student) should be able to:

1. Learn the production of Film.
2. Understand how to write and produce a Film and Tv programme.
3. Learn the different aspects of film promotion and funding, TV production.
4. Understand the different types of theories related to film making
5. The deeper study of work done by acclaimed Film directors

BAF 402- Basic Direction

Student Learning Outcomes:

- (i) Students will understand the concepts of cinematography as well as film direction
- (ii) Students will understand the Visual language and language of mise
- (iii) Students will be able to do case study of famous directors like Hitchcock and Christopher Nolan

- (iv) The Students will understand the Mise-en-Scene and frame to frame visualisation

BAF 403- Editing Technique for Film and TV

Student Learning Outcomes:

- (i) Students will understand the concepts of Film and TV post-production
- (ii) Students will understand the Editing technique and different kinds of cuts
- (iii) Students will be familiarized with film montage and film language as well as visual grammar

- (iv) Students will understand the difference between linear and non-linear editing style

BAF 404- Basics of Media Research

At the successful completion of this course you (the student) should be able to:

1. To define research.
2. To learn the basics of research – basic concepts, nature, scope, trends.
3. Overview the process of media research- Qualitative and Quantitative methods.
4. To explain the relationship between theory and research.
5. Describe and compare the predominant research methods in journalism, media, and communication.

BAF 405- Advanced Script Writing

At the successful completion of this course you (the student) should be able to:

1. Learn the art of creative writing for films
2. Understand how to write script for a film
3. Learn the different aspects of film writing, story writing and different narrative styles
4. Understand the different types of theories and formats related to film writing
5. The deeper study of work related to storyboarding, spec script , proposal writing

BAF 407- Portfolio Development-Documentary Film

At the successful completion of this course you (the student) should be able to:

1. List and understand all the steps that are a must in actual production of Documentary Film Making

2.Communicate and illustrate your own ideas to write a script and direct a Documentary film

3.Apply the knowledge and skills of pre-production, production and post-production to make your project successful.

BAF 502 - Cinema Studies-1 (Odd Semester)

At the successful completion of this course you (the student) should be able to:

1. Outline the important event in development of Cinema both in Asian countries and in India
2. Analyze the impact of cinema movements and theories on film making style and industries in this period
3. Interpret the relationship of cinema with arts and literature in Indian context as well as world context
4. Assimilate differentiation and similarity in the journey of Indian cinema with Japanese, Chinese, and Iranian and European cinema during this period and interpret and recognize the contribution of some important filmmakers during this era.

BAF 503 - AD and Corporate Filmmaking

At the successful completion of this course you (the student) should be able to:

At the end of this course, the students should be able to:

1. Analyze the historical and theoretical foundations of advertisement.
2. Create film work that manifests the ideas of corporate filmmaking.
3. Analyze story structure and the screenwriting process for making of ad film.
4. Apply current best practices in corporate film making.
5. Apply current best practices in editing language and visual effects for ad and corporate films.
6. Effectively manage the resources and logistics required to produce ad corporate films.
7. Collaborate as a member or leader of a filmmaking team.
8. Evaluate the ethical implications inherent in filmmaking practices.

BAF 506- Portfolio Development-Fiction Film

At the successful completion of this course you (the student) should be able to:

1. List and understand all the steps that are a must in actual production of Film Making
2. Communicate and illustrate your own ideas to write a script and direct a short film
3. Apply the knowledge and skills of pre-production, production and post-production to make your project successful.

BAF 605- Advance Direction (Even Semester)

At the end of this course, the students should be able to:

1. Exploration the major aesthetic trends of film making styles and philosophy
2. Students will be able to identify the essentials of Screen Grammar
3. The students who complete this course will be able to apply the knowledge of specific approaches while directing a film.
4. The course will enhance understanding of film editing philosophy and techniques

BAF 607- Film Appreciation

At the successful completion of this course you should be able to:

1. The course will help the students to recognize individual artistic elements within the medium of cinema
2. Students will be able to identify the essentials of Film appreciation
3. The course will enhance understanding of cinema's relationship to other arts.
4. The students who complete this course will be able to apply the knowledge of specific approaches to analyze film and reconstruct their views on cinema using their own interpretation



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF COMMUNICATION (ASCO)

Bachelor of Science (B.Sc.)

Programme Outcome (PO)

PO1: To identify, formulate and analyse complex problems, and to reach substantial conclusions using principles of sciences.

PO2: To apply various statistical tools to research problems and to develop the ability to build statistical knowledge.

PO3: To develop scientific intuition, ability and techniques to tackle problems, either theoretical or experimental in nature.

PO4: To inculcate scientific thinking, awareness and ability to use necessary current techniques, skills and modern tools.

PO5: To understand the impact of scientific solutions on societal and environmental contexts and to demonstrate knowledge of and need for sustainable development.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF COMMUNICATION
(ASCO)**

Bachelor of Science - (Animation & Visual Graphics)

Programme Code: BAV

Duration- 3 Years Full Time

B.Sc. (A&VG)

Programme Structure

Credits Summary

B.Sc.-A&VG (3 years/ 6 semesters)						
Semester	(CC)	Domain Electives (DE)	VA	Open Electives (OE)	NTCC	Total
I	21	-	4	-	2	27
II	15	3	4	3	2	27
III	16	3	4	3	5	31
IV	15	3	4	3	2	27
V	9	3	4	3	8	27
VI	3	3	-	-	16	22
Total	79	15	20	12	35	161

* CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective,
FW - Field Work

Program Specific Outcomes (PSOs)

- 1- Develop basic understanding of sketching & drawing with manual & software tools.
- 2- Understand the basic application of multimedia tools & their use in designing & developing animation concepts & camera techniques & their technical feature aspects.
- 3- Demonstrate specialized knowledge and skill set in creating and developing content for Introduction to visual communication.
- 4- Understand the theoretical aspects of functions, roles, requirements and opportunities in various areas under the broad umbrella of graphic designing, multimedia and web designing software & scripting .
- 5- Exhibit expertise in multiple sub-fields of graphics & animation catering to the professional requirements of design industry. Students would also acquire basic knowledge of designing and screen designing

Program Structure

AMITY SCHOOL OF COMMUNICATION (ASCO) **Bachelor of Science - (Animation & Visual Graphics)**

SEMESTER-I

Code	Course	Category	L	T	P/F W	Total Credits
BAV101	Basics of Sketching & Drawing	CC	2	-	2	3
BAV102	Typography	CC	2	-	2	3
BAV103	Computer Applications	CC	2	-	2	3
BAV 108	Introduction to Multimedia	CC	2	-	2	3
BAV105	Basics of HTML	CC	2	-	2	3
BAV 109	Digital Photography	CC	3	-	-	3
BAV107	Introduction to Visual Communication	CC	3	-	-	3
BCS 101	English	VA	1	-	-	1
BSS 103	Behavioural Science -I (Understanding Self for Effectiveness)	VA	1	-	-	1
FLN 101 FLG101 FLS 101	Foreign Language – I French German Spanish	VA	2	-	-	2
AND001	Anandam-I	NTCC	-	-	-	2
Total						27

SEMESTER-II

Code	Course	Category	L	T	P/FW	Total Credits
BAV201	Print Media Design and Production	CC	2	-	2	3
BAV208	Digital Video Production	CC	2	-	2	3
BAV203	Web Design	CC	2	-	2	3
BAV204	Foundation of 2D Animation	CC	2	-	2	3
BAV209	Introduction to 3D Modelling	CC	2	-	2	3
BAV206	Location Research for Animation	DE	2	-	2	3
BAV207	Principles of Screen Design	DE	2	-	2	
	Open Electives					
		OE				3
BCS 201	English	VA	1	-	-	1
BSS 203	Behavioural Science -II (Problem Solving and Creative thinking)	VA	1	-	-	1
FLN 201 FLG201 FLS 201 FLC201	Foreign Language – II French German Spanish Chinese	VA	2	-	-	2
AND002	Anandam-II	NTCC	-	-	-	2
	Total					27

SEMESTER-III

Code	Course	Category	L	T	P/FW	Total Credits
BAV301	Lighting and Rendering	CC	2	-	2	3
BAV302	Rigging and Animation	CC	2	-	2	3
BAV303	Particles and Dynamics	CC	2	-	2	3
BAV304	Maya Fundamentals	CC	2	-	2	3
EVS 001	Environmental Studies	CC	4	-	-	4
BAV350	Summer Project-I (Evaluation)	NTCC	-	-	-	3
BAV308	Digital Story Telling	DE	2	-	2	3
BAV351	Project (Presentation & Evaluation)	DE	2	-	2	
	Open Electives					
		OE				3
BCS 301	Communication Skills-I	VA	1	-	-	1
BSS 303	Behavioral Science III (Interpersonal Communication & Relationship Management)	VA	1	-	-	1
FLN 301 FLG301 FLS 301 FLC301	Foreign Language - III French German Spanish Chinese	VA	2	-	-	2
AND003	Anandam-III	NTCC	-	-	-	2
	Total					31

SEMESTER-IV

Code	Course	Category	L	T	P/FW	Total Credits
BAV401	Production Pipeline	CC	2	-	2	3
BAV402	Lighting and Rendering in Maya	CC	2	-	2	3
BAV403	Rigging and Animation in Maya	CC	2	-	2	3
BAV404	Particles and Dynamics in Maya	CC	2	-	2	3
BAV405	Stop Motion	CC	2	-	2	3
BAV408	Animation Project - 3D Quadruped	DE	2	-	2	3
BAV409	Digital Editing	DE	2	-	2	
	Open Electives					
		OE				3
BCS 401	Communication Skills-II	VA	1	-	-	1
BSS 403	Behavioural Science -IV (Group Dynamics & Team Building)	VA	1	-	-	1
FLN 401 FLG401 FLS 401 FLC401	Foreign Language – IV French German Spanish Chinese	VA	2	-	-	2
AND004	Anandam-IV	NTCC	-	-	-	2
	Total					27

SEMESTER-V

Code	Course	Category	L	T	P/FW	Total Credits
BAV501	3D Character Design and Sculpting (Z-Brush)	CC	2	-	2	3
BAV502	Digital Compositing	CC	2	-	2	3
BAV503	Sound Editing	CC	2	-	2	3
BAV550	Summer Project-II (Evaluation)	NTCC	-	-	-	6
BAV504	Animation Post Production	DE	2	-	2	3
BAV507	Foley & Sound effects for Film & Animation	DE	2	-	2	
	Open Electives					
		OE				3
BCS 501	Communication Skills-III	VA	1	-	-	1
BSS 503	Behavioral Science-V (Individual, Society and Nation)	VA	1	-	-	1
FLN 501 FLG 501 FLS 501 FLC501	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
AND005	Anandam-V	NTCC	-	-	-	2
	Total					27

SEMESTER-VI

Code	Course	Category	L	T	P/F W	Total Credits
BAV601	Advance Compositing	CC	2	-	2	3
BAV 602 BAV 603 BAV 604 BAV 605	Professional Project Specialization: (Any one) Professional Project (2D Animation) Professional Project (3D Animation) Professional Project (Composting) Professional Project (Lighting and Rendering)	NTCC	-	-	16	8
BAV606	Internship	NTCC	-	-	-	8
BAV607	Brand Designing	DE	2	-	2	3
BAV608	Portfolio Development	DE	-	-	6	
Total						22

COURSE OUTCOMES

AMITY SCHOOL Of COMMUNICATION (ASCO)

B.Sc. (A&VG)

➤ **BAV-102- Typography**

BSc- Animation & Visual Graphics

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative designing through the typography.
2. Create the creatives of graphics design.
3. Apply text, font and rule of formatting in book and newspaper design.
4. Develop the best creative for the graphic designing career.

➤ **BJM103]**

BSc(A&VG)

Course Outcomes (CO)

At the successful completion of this course you should be able to:

1. Demonstrate the hardware, software & multimedia applications.
2. Describe the concept of design & printing process.
3. Critically analyze the importance of Desktop Publishing in print industry.
4. Design ads & promotion materials as per the theme & social awareness.
5. Apply knowledge of printing file formats, color modes and their picture quality.

➤ **BJM104- [Introduction to Multimedia and its Application**

BSc(A&VG)-I

Course Outcomes (CO)

At the successful completion of this course you should be able to:

1. Demonstrate the multimedia application, software & design applications.
2. Describe the concept of resolution & printing process & color modes.
3. Critically analyze the importance of multimedia application in the field of designing & animation industry.
4. Apply knowledge of high resolution, vector, raster file formats,, color modes and their picture quality.

➤ **BAV 105- BASICS OF HTML**

B.Sc(A&VG)-Ist Sem

Course Outcomes (CO)

At the successful completion of this course the student should be able to:

1. Describes the basics of HTML programming.
2. Explore how to design static web pages with Tables and frames.

3. Define the use of HTML, CSS and to make difference between the content of document and the style of document.
4. Explore the use of web graphics like color, File format, resolution etc.

➤ **BAV 107- Introduction to Visual Communication**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Understand the basic characteristics, strength and scope related to visual communication.
2. Understand that visual communication is a carrier of information.
3. To understand the historical trends and developments of visual communication.
4. Understand the concept of gaze, experience of images and elements of visual communication.

➤ **BAV-301- [Lighting & Rendering
BSc- Animation & Visual Graphics**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative virtual light scenes through 3D lighting techniques.
2. Create design of complete 3D background and characters with photorealistic lighting.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the 3D lighting and texturing tools and techniques.

➤ **BAV-302- Rigging and Animation
BSc- Animation & Visual Graphics**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through Rigging and Animation techniques.
2. Create design of complete 3D background and character for an 3D animation.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the Rigging and Animation and texturing tools and techniques.

➤ **BAV-303- Particles and Dynamics
BSc- Animation & Visual Graphics**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through Particles and Dynamics techniques.
2. Create design of complete 3D background and character for an 3D animation.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the Particles and Dynamics and texturing tools and techniques.

➤ **BAV-304-Maya Fundamentals**

[BSc- Animation & Visual Graphics]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through 3D modelling techniques.
2. Create design of complete 3D background and character for an 3D animation.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the 3D modelling and texturing tools and techniques.

➤ **BAV-306 -Stop Motion]**

[BSc- Animation & Visual Graphics]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of any creative topics.
2. Create the creative animation as per need.
3. Apply the motion, speed, Gravity etc. on animated objects.
4. Develop the showreel for best job.

➤ **BAV-307-[Project (Presentation Evaluation)**

BSc-Animation & Visual Graphics

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through 3D modelling, Graphic designing, techniques.
2. Create design of complete idea of the chosen project.
3. Apply basic key techniques and process of applications to projects.
4. Develop a creative portfolio through the learnt application on the selected project.

➤ **EVS 001-ENVIRONMENTAL SCIENCES**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Understand the importance, need and scope of the subject.
2. Evaluate local, regional and global environmental topics related to resource use and management.
3. Measure environmental variables and interpret results.
4. Interpret the results of scientific studies of environmental problems and propose solutions to these.
5. Implement “Sustainable development”, in day to day activities.

➤ **BAV 501-Digital Editing- FCP**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with editing

skills.

2. Identify the Essential Skills that an independent video editor should have.
3. Possesses the Skills of a professional video editor and able to cope with any type of editing such as documentary, fiction, music video.
4. Develop a project that is best for job opportunities

➤ **BAV 502-Digital Composting]**
BSc- Animation and Visual Graphics

Program learning outcomes (CO)

List the Course Outcomes (CO) that prescribe the knowledge, attitudes, skills and practices that students are expected to acquire and demonstrate in completing this course.

At the successful completion of this course you (the student) should be able to:

1. Understand the visualization of storyboard, Production pipeline.
2. Understand the significance and role of combining live Action with Animation.
3. Demonstrate the Morphing – Still and Dynamic, Deformation Effects.
4. Display familiarity with essential skills and technical knowhow that a professional VFX

designer must Fire and Smoke Effects Liquid Animation and Effects.

➤ **BAV 505-Animation post production**
Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with editing skills in animation
2. Identify the Essential Skills that an independent video editor should have.
3. Possesses the Skills of a professional video editor, animator and able to cope with any type of editing such animation editing, be it a documentary, fiction, music video.
4. Develop a project that is best for job opportunities

➤ **BAV 201- Print Media Design & Production**

Course Outcomes (CO)

At the successful completion of this course you (the student) must have:

1. Basic knowledge on the designing principles and elements which is mandatory for a successful designer,
2. Better typography knowledge for enhancing readability.
3. Understanding on proper layout creation for various print and visual media.
4. Practical knowledge on creating professional and creative layout designs for print and web.

➤ **BAV 202- Digital Photography**
Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to camera operation and handling as well display familiarity with history and background of photography.
2. Understand the significance and role of photography and the photographer in a society.
3. Demonstrate aperture, depth of field and shutter speed as well lighting techniques.
4. Display familiarity with essential skills and technical knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

➤ **BAV 203- Web Design**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Understand the basics and underlying concepts of Web Designing and Animation Tools.
2. Create and implement web elements like text, audio, images, video, and animation using text editor, flash, and dreamweaver application.
3. To implement the concept of various tools related to website designing and animation elements like text editors, flash tool, and dreamweaver tools.

➤ **BAV 204- Foundation of 2D Animation**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with 2d animation skills.
2. Identify the Essential Skills that an independent 2d animator should have.
3. Possesses the Skills of a professional 2d animator and able to cope with any basic 2d animation.
4. Develop a project that is best for job opportunities

➤ **[BAV-205]- Introduction to 3D**

[BSc- Animation & Visual Graphics]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through 3D modelling techniques.
2. Create design of complete 3D background and character for an 3D animation.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the 3D modelling and texturing tools and techniques.

➤ **[BAV 206]- Location Research for Animation**

[BSc- Animation & Visual Graphics]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Understand the basic ability required for location drawing in animation field with visual ideologies.
2. Create an art for his own concept with creative and aesthetic elements.

3. Do different perspectives sketches with the relevant lighting techniques
4. Create a beautiful background for any scene by incorporating both matte and digital painting techniques.

➤ **BAV 207- Principle Screen Design**

Amity School of Communication

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with UI Design skills.
2. Identify the Essential Skills that an independent UI Design should have.
3. Possesses the Skills of a professional UI Designer and able to cope with any basic UI Design
4. Develop a project that is best for job opportunities

➤ **BAV - 401- Production Pipeline**

BSc- Animation & Visual Graphics

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creating a production plan for the films.
2. Create design of complete production stages for the story of a movie.
3. Apply basics of production process to create a final proposal for animated short.
4. Develop a creative portfolio for their own story/idea to create the animation movie.

➤ **BAV - 402- Lighting & Rendering in MAYA**

BSc- Animation & Visual Graphics

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through 3D lighting techniques.
2. Create design of complete 3D background and character for a virtual scene.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the 3D lighting and texturing tools and techniques.

➤ **BAV-403]- [Rigging and Animation in Maya**

BSc- Animation & Visual Graphics

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through Rigging and Animation techniques.
2. Create design of complete 3D background and character for an 3D animation.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the Rigging and Animation and texturing tools and techniques.

➤ **BAV-404-Particles and Dynamics in Maya**

BSc- Animation & Visual Graphics

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through Particles and Dynamics techniques.
2. Create design of complete 3D background and character for an 3D animation.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the Particles and Dynamics and texturing tools and techniques.

➤ **BAV 405- Advance Camera Skills**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to camera operation and handling as well display familiarity with history and background of photography.
2. Understand the significance and role of photography and the photographer in a society.
3. Demonstrate aperture, depth of field and shutter speed as well lighting techniques.
4. Display familiarity with essential skills and technical knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

➤ **BAV 407-Basic of Digital Editing**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with editing skills.
2. Identify the Essential Skills that an independent video editor should have.
3. Possesses the Skills of a professional video editor and able to cope with any type editing such documentary, fiction, music video.
4. Develop a project that is best for job opportunities

➤ **BAV-601-Advance Compositing**

BSc- Animation & Visual Graphics

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

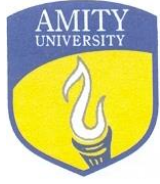
1. Investigate the Idea of creative visual effects and compositions techniques.
2. Create realistic composition of 3D character/scene with real shots through industry specific tools.
3. Apply basic visual effects to real scene and creating full composition of virtual scene.
4. Develop a creative portfolio through the visual effects and tracking tools and techniques.

➤ **BAV-608- Portfolio Development**
BSc- Animation & Visual Graphics

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative visual effects and compositions techniques.
2. Create realistic composition of 3D character/scene with real shots through industry specific tools.
3. Apply basic visual effects to real scene and creating full composition of virtual scene.
4. Develop a creative portfolio through the visual effects and tracking tools and techniques.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF COMMUNICATION (ASCO)

Master of Arts (M.A.)

Programme Outcome (PO)

PO1: To acquire the knowledge of various research methods and develop research aptitude for finding solutions to a specific issue.

PO2: To explain social, economic, historical, geographical, political, ideological and philosophical tradition of their respective subjects.

PO3: To develop as responsible citizens and professionals and to think and act for the solution of various issues prevailing in the human life to make this world a better place.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF COMMUNICATION
(ASCO)**

Master of Arts (Journalism & Mass Communication)

Programme Code: MJM

12800

Duration-2 Years Full Time

MA (J&MC)

Programme Structure

Credits Summary

MA (J&MC)

Credits PG (2 years/ 4 semesters)

Semester	(CC)	Domain Electives (DE)	VA	Open Electives(OE)	NTCC	Anandam	Total
I	21	-	4	-	0	2	27
II	15	4	4	3	0	2	28
III	12	4	4	3	6	2	31
IV	3	4	-	-	18	-	25
Total	51	12	12	6	24	6	111

* CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC-Non Teaching Credit Courses

Program Specific Outcomes (PSOs)

1. The students of M.A.J&MC after the completion of the programme would be able to demonstrate knowledge and understanding of the role and functions of various facets of the media industry and its various specialized disciplines and be wise consumers of media, managers of information and responsible producers of global media culture
2. The students after completing their programme would be able to exhibit and apply the theoretical concepts as well as the practical skills required in the various fields of Journalism and Mass Communication in their real life situations.
3. The students would be able to apply the technical writing skills taught in the lectures in relation to different areas of media functioning in their future professional life and would be able to think innovatively and translate those thoughts in to productive actions.
4. Identify and Develop the various media products and demonstrate a thorough understanding of the various strategies and tools employed in the various specialised disciplines of Journalism and Mass Communication

Program Structure

AMITY SCHOOL OF COMMUNICATION (ASCO) **Master of Arts (Journalism & Mass Communication)**

Semester I

Code	Course	Category	L	T	P/FW	Credit Units
MJM 101	Introduction to Mass Communication	CC	3	-	-	3
MJM 102	Print Journalism - Reporting and Editing	CC	3	-	-	3
MJM 103	Basics of Advertising	CC	3	-	-	3
MJM 104	Foundation of Film Production	CC	1	1	2	3
MJM 105	Basic Photography	CC	1	1	2	3
MJM 106	Indian Political System	CC	3	-	-	3
MJM 107	Development Communication	CC	3	-	-	3
BCS 111	Communication Skills – I	VA	1	-	-	1
BSS 111	Behavioural Science I (Self Development and Interpersonal Skills)	VA	1	-	-	1
FLN 111 FLG 111 FLS 111 FLC 111	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
AND001	Anandam-I	NTCC	-	-	-	2
Total						27

Semester II

Code	Course	Category	L	T	P/FW	Credit Units
MJM 201	Broadcast Journalism	CC	2	-	2	3
MJM 202	Computer Applications	CC	1	1	2	3
MJM 203	Public Relations	CC	2	-	2	3
MJM 204	Media Research-I	CC	1	2	-	3
MJM 205	Event Management: Concept and Techniques	CC	2	-	2	3
BCS 211	Communication Skills – II	VA	1	-	-	1
BSS 211	Behavioral Science – II	VA	1	-	-	1
FLN 211	Foreign Language – 2	VA	2	-	-	2
FLG 211	French II					
FLS 211	German II					
FLC 211	Spanish II Chinese II					
	Open Elective II	OE				3
MJM 206	Advance Advertising	DE	3	1	-	4
MJM 207	Advance Film Making		2	1	2	
MJM 208	Advance Photography		2	1	2	
AND002	Anandam-II	NTCC	-	-	-	2
Total						28

Semester III

Code	Course	Category	L	T	P/F W	Credit Units
MJM 301	Corporate Communication	CC	2	-	2	3
MJM 302	Media Research II	CC	2	1	-	3
MJM 303	Social Media	CC	2	-	2	3
MJM 304	Print, Web and Advertising Design	CC	1	1	2	3
MJM 350	Summer Project	NTCC	-	-	12	6
BCS 311	Communication Skills – III	VA	1	-	-	1
BSS 311	Behavioral Science III (Leading Through Teams)	VA	1	-	-	1
FLN 311 FLG 311 FLS 311 FLC 311	Foreign Language French III German III Spanish III Chinese III	VA	2	-	-	2
	Open Elective III	OE				3
MJM 305	Political Journalism	DE	2	2	-	4
MJM 306	Television Journalism		2	1	2	
MJM 307	Documentary Production		2	1	2	
MJM 308	Media Marketing and Sales		3	1	0	
AND003	Anandam-III	NTCC	-	-	-	2
Total						31

Semester IV

Code	Course	Category	L	T	P/FW	Credit Units
MJM 401	Media Laws and Ethics	CC	3	-	-	3
MJM 402	Internship	NTCC	-	-	-	10
	Professional Project (any one) + Research Paper Presentation	NTCC			12	8= 6 for Project +2 for Research Paper Presentation
MJM 403	Professional Project (Radio)					
MJM 404	Professional Project (Television Journalism)					
MJM 405	Professional Project (Print)					
MJM 406	Professional Project (Advertising)					
MJM 407	Professional Project (Public Relations and Events)					
MJM 410	Final Cut Pro		1	1	4	
MJM 411	Media Readings and Workshop (Online Journalism)	DE	-	2	4	4
MJM 412	Digital Marketing		2	1	2	
Total						25

COURSE OUTCOMES

AMITY SCHOOL Of COMMUNICATION (ASCO)

M.A. (J&MC)

MJM 102 - Print Journalism – Reporting & Editing (Odd Semester)

After the successful completion of this course the student should be:

1. Fully aware of the history of press in India from pre-independence times.
2. Familiar with Newsroom structure and personnel.
3. Well-informed about what News is, its elements, how it works and circulates, etc.
4. Demonstrate knowledge of various reporting and editing techniques.
5. Knowledgeable about newspaper production processes.

MJM 103- Basics of Advertising

At the successful completion of this course you (the student) should be able to:

1. Student will get an insight and awareness about the concept, types and categories of Advertisement.
2. Student will be able to have an overview of the various aspects of advertising along with the functioning of advertising agencies.
3. Student will have an understanding the ethical aspects of Advertising.

MJM 104 - Foundation of Film Production

At the successful completion of this course, you should be able to:

1. Investigate all types of film genres.
2. Develop the technical knowledge on video camera handling.
3. Apply creativity skills through using natural and artificial lights in video shooting
4. Create own film through three phases of film production.
- 5.

MJM 105- Basic Photography

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to camera operation and handling as well display familiarity with history and background of photography.
2. Understand the significance and role of photography and the photographer in a society.
3. Demonstrate aperture, depth of field and shutter speed as well lighting techniques.
4. Display familiarity with essential skills and technical knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

MJM 106 - Indian Political System

After the successful completion of this course the student should be:

1. Knowledgeable about the Indian political system, including the way political parties function and the political complications arising in India.
2. Fully aware of the features of the Indian Constitution and key amendments.
3. Informed about the bicameral nature of the Supreme legislative body (Parliament) and the differences between both the houses of the Parliament.
4. Familiar about the unicameral and bicameral nature of the State Legislatures.
5. Role and responsibilities of the President, Prime Minister, Chief Minister & Governor.
6. Conversant with the Indian electoral process.
7. Aware of the importance, role and responsibilities of the Indian Judiciary.

MJM 107 - Development Communication

At the successful completion of this course you (the student) should be able to:

1. Develop an in depth understanding of communication process, tools, functions and barriers.
2. Become familiar with the concept of visual communication and its importance in the effective communication.
3. Understand the role, importance and limitation of various media platform in the information dissemination.
4. Achieve deeper understanding of various scholarly and scientific views on communication processes.

MJM 201- Broadcast Journalism (Even Semester)

After the successful completion of this course; the students should be able to-

1. Understand the nature, characteristics and challenges of broadcast journalism along with the structure of newsroom and roles/responsibility of newsroom personnel.
2. Polish their writing and technical skill set to prepare themselves as broadcast journalists
3. Exhibit their skills in the areas of newsgathering, writing, production, presentation.
4. Plan and execute the production of news programs independently and develop the content of broadcast quality.

MJM 202- Computer Application

At the successful completion of this course you should be able to:

1. Demonstrate the hardware, software & multimedia applications.
2. Describe the concept of design & printing process.
3. Critically analyze the importance of Desktop Publishing in mass communication.
4. Design ads & promotion materials as per the theme & social awareness.
5. Apply knowledge of printing file formats, color modes and picture quality.

MJM 203- Public Relations

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate critically the facts related with the significance and role and functions of an effective and efficient Public Relations Department in an organization and the various important techniques and practices employed in this field.
2. Identify the Essential Skills that a PR Professional possesses to be successful in the profession and apply them in your real life situations.
3. Develop and Draft various types of PR Writings following all their typical technicalities.
4. Analyse and evaluate the relevance and utility of various PR Tools and Strategies applicable for different job situations and apply them in your real world.

MJM 204 - Media Research-I

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate critically the role and functions of various communication research methods, sampling strategies, tools and important techniques of Media research.
2. Identify various research methods and the Essential Skills that a Media researcher possesses to be successful in the Communication research field and apply them in real life situations.
3. Differentiate and identify various methods and sampling strategies as well as learn about different statistical tools of data interpretation.
4. Execute various research activities and capable to narrate them in the form of a research report.
5. Critically analyze and evaluate the various research designs and methods of communication research and their practical implication in the field.

MJM 205 - Event Management

At the successful completion of this course you (the student) should be able to:

1. Visualize and explain how to create an event that achieves specific objectives for the host/client.
2. Design a Planning Process that incorporates Budgeting, Project Management, Communication and Evaluation Tools.
3. Develop an understanding of the various event elements (food and beverage, design, entertainment, site selection, etc.) and how to cost-effectively employ them.

4. Understand the role of the Event Planner on site at the event, and the mindset necessary to oversee successful event coordination.

MJM 206 - Advance Advertising

At the successful completion of this course you (the student) should be able to:

1. Exhibit understanding of Advertising planning process.
2. Design an advertising copy for print and other mediums.
3. Analyze role of Media Planners and Media planning process in campaigns
4. Evaluate various media buy options for a campaign
5. Analyse challenges for advertising industry due to digital and social media platforms.

MJM 207 - Advance Film Making

At the successful completion of this course students should be able to:

1. Understand the basic concepts and fundamental elements of Film Production.
2. Gain a basic understanding of fundamental aesthetic and conceptual approaches to digital video production and non-linear editing, and become able to script and produce short films based on these principles while working both independently and in small groups.
3. Demonstrate an advanced level of proficiency in filmmaking by producing and directing their own films working through the stages of pre-production, production, and postproduction.
4. Have an understanding of specific kinds of films based on: extended close study of one or more of the major individual figures in cinema; a thorough survey of one or more of the major national cinemas; one or more historically important genres in cinema; or intensive study of a motif, topic, or period in film.

MJM 208- Advanced Photography

At the successful completion of this course you (the student) should be able to:

1. Understand the basic technical aspects related to camera operation and handling as well display familiarity with history and background of photography.
2. Understand the significance and role of photography and the photographer in a society.
3. Demonstrate aperture, depth of field and shutter speed as well lighting techniques.
4. Familiarity with camera parts & Organs and Barriers in Photography.
5. Display familiarity with essential skills and technical knowhow that a professional photographer must possess to be successful in the profession such as knowledge of camera operation and related software and hardware.

MJM 301 - Corporate Communication (Odd Semester)

At the successful completion of this course you (the student) should be able to:

1. Explain the meaning and purpose of corporate communication function in an organization namely: what it does and how the department contributes towards the building of brand image and a strong corporate reputation amongst the various stakeholder groups and the public at large.
2. List out the key elements and components of an effective Corporate Communication Strategy
3. Describe the effectiveness of a sound Communication Response Strategy to a Crisis situation.

4. Develop a clear understanding about the role and functions of a Corporate Communication Professional in an organization and the skills and qualities required by them to excel in the field.

MJM 302 - Media Research

At the successful completion of this course you (the student) should be able to:

1. Develop the research attitude in both qualitative and quantitative spheres.
2. Comprehend and demonstrate critically the role and functions of various media research methods, sampling strategies, tools, and important techniques of Media research.
3. Identify various research methods and statistical tools of Research.
4. Differentiate and identify various methods and sampling strategies as well as learn about different statistical parameters of data interpretation.
5. Execute various research activities and capable to delineate them in the form of a research reports.
6. Critically analyze and evaluate the various research designs and methods of communication research and their practical implication in the field.

MJM 303 - Social Media

At the successful completion of this course you should be able to:

1. Understand what Social Media is and how it is changing the media landscape.
2. Understand how the blogs and microblogs work and how traditional media is using them.
3. Learn the different aspects of Social Networking and the way it is changing behavioural patterns.
4. Understand the concept of Citizen Journalism and the tools that are used by Citizen Journalists to communicate information.

MJM 304 - Print Web & Advertising Design

At the successful completion of this course you should be able to:

1. Demonstrate the font, Typography, promotional material, advertisements (Digital & Print) & Types of layout formats.
2. Stationary material, Principles of design, design elements, file formats & their use in designing.
3. Describe the concept and characteristics of advertising design & their printing process.
4. Demonstrate the dummy layout, web page designing, newspaper & magazine advertisement & their elements.

MJM 307- Television Journalism

After the successful completion of this course; the students should be able to-

1. Understand the nature, characteristics and challenges of broadcast journalism along with the structure of newsroom and roles/responsibility of newsroom personnel.
2. Polish their writing and technical skill-set to prepare themselves as broadcast journalists
3. Exhibit their skills in the areas of newsgathering, writing, production, presentation .

4. Plan and execute the production of news programs independently and develop the content of broadcast quality.

MJM 308 - Documentary Production

At the successful completion of this course you (the student) should be able to:

1. Investigate all types of documentaries.
2. Develop the technical knowledge of script writing for documentary film, treatment writing , budget making
3. Develop the technical knowledge on video camera for indoor and out-door shooting of a documentary film as well conducting an interview with an expert
4. Apply creativity skills through using natural and artificial lights in video shooting
Create own documentary through three phases of documentary production.

MJM 309- Media Marketing and Sales

At the successful completion of this course you (the student) should be able to:

1. Student will get an insight and awareness about the concept and types of Media marketing.
2. Student will be able to have an overview of the various aspects of Media planning and buying.
3. Student will have an understanding how to develop skills to mane the media sales.

MJM 401 - Media Law and Ethics (Even Semester)

At the successful completion of this course you should be able to:

1. Demonstrate knowledge of media laws and the ethical considerations in following them
 2. To be able to apply their learning and knowledge in various ethical questions faced by the media.so as to do your work properly
 3. Understand the relation between media laws, ethics and morality and their need for building a just society.

MJM 412 - Digital Marketing

At the successful completion of this course you (the student) should be able to:

1. Understand how to utilize the various digital market platforms.
2. Design a process highlighting latest digital marketing trends
3. Have an understanding of the various avenues of Search Engine Optimization.
4. Analyze and compare traditional vs digital marketing.



AMITY UNIVERSITY

— R A J A S T H A N —

AMITY SCHOOL OF COMMUNICATION (ASCO)

Master of Science (M.Sc.)

Programme Outcome (PO)

PO1: To be able to analyse problems, formulate a hypothesis, evaluate and validate results; acquire capacity to extrapolate from what one has learned and apply the competencies to solve different kinds of non-familiar problems.

PO2: To acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethics in the subject concerned; identify unethical behaviour, plagiarism and acquire knowledge of plagiarism tools.

PO3: To develop analytical reasoning and to evaluate the reliability and relevance of scientific evidence; acquire logical thinking; analyse and synthesise data from a variety of sources with valid interpretations and conclusions.



AMITY UNIVERSITY
R A J A S T H A N

**AMITY SCHOOL OF COMMUNICATION
(ASCO)**

M.Sc. (Graphic & Animation)

Programme Code: MJM

12621

Duration-2 Years Full Time

M.Sc. (G&A)

Programme Structure

Credits Summary

M.Sc.-G&A						
(2 years/ 4 semesters)						
Semester	(CC)	Domain Electives (DE)	VA	Open Electives(OE)	NTCC	Total
I	21	-	4	-	2	27
II	12	3	4	3	2	24
III	12	3	4	3	8	30
IV	3	4	-	-	18	25
Total	48	10	12	6	30	106

* CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, NTCC-Non Teaching Credit Courses

Program Specific Outcomes (PSOs)

1. The student of MSc (G & A) after the completion of the programme would be able to demonstrate knowledge and understanding of the Technique of stop motion animation and its techniques.
2. The students would be able to apply the techniques as well as the practical skills required in the various concepts and ideas through the stop animation process.
3. Identify and develop the various clay-motion and demonstrate a spacious understanding of the various techniques in building a clay characters and animation.
4. Identify and develop a demo reel for the career perspective.

Program Structure

AMITY SCHOOL OF COMMUNICATION (ASCO)

M.Sc. - (Graphic & Animation)

SEMESTER-I

Code	Course	Category	L	T		P/FW	Total Credits
MAV 108	Introduction to 2D-Animation	CC	2		-	2	3
MAV 102	Digital Art and Editing	CC	2		-	2	3
MAV 103	Scripting for Animation and Film	CC	2		-	2	3
MAV 104	Introduction to 3D - Modeling, Shading, Lighting	CC	2			2	3
MAV 105	Stop Motion	CC	2		-	2	3
MAV 109	Sound Editing	CC	2		-	2	3
MAV 107	Print Design & Typography	cc	2		-	2	3
BCS 111	Communication Skills – I	VA	1		-	-	1
BSS 111	Behavioural Science -I (Self Development and Interpersonal Skills)	VA	1		-	-	1
FLTN111	Foreign Language I French II	VA	2		-	-	2
FLG 111	German II						
FLS 111	Spanish II						
FLC 111	Chinese II						
AND001	Anandam-I	NTCC	-		-	-	2
TOTAL							27

SEMESTER-II

Code	Course	Category	L	T	P/FW	Total Credits	
MAV 208	Rigging and Animation	CC	2	-	2	3	
MAV 209	Digital Video Production	CC	2	-	2	3	
MAV 210	Camera Skills	CC	2	-	2	3	
MAV 204	Visual Effects-I	CC	2	-	2	3	
MAV 205	Motion Graphics	DE	2	-	2	3	
MAV 206	Corporate Communication						
BSS 211	Behavioural Science -II (Behavioural Communication and Relationship Management)	VA	1	-	-	1	
BCS 211	Communication Skills – II	VA	1			1	
FLN 211	Foreign Language II French II	VA	2	-	-	2	
FLG 211	German II						
FLS 211	Spanish II						
FLC 211	Chinese II						
	Open Elective II	OE				3	
AND002	Anandam-II	NTCC	-	-	-	2	
	TOTAL						24

SEMESTER-III

Code	Course	Category	L	T	P/FW	Total Credits
MAV 301	Advanced 3D (Particles, Dynamics)	CC	2	-	2	3
MAV 302	3D Match Moving	CC	2	-	2	3
MAV 303	Visual Effects-II	CC	2	-	2	3
MAV 304	Production Pipeline	CC	2	-	2	3
MAV 350	Summer Project	NTCC	-	-	-	6
BCS 311	Communication Skills - III	VA	1	-	-	1
BSS 311	Behavioural Science -III (Leading Through Teams)	VA	1	-	-	1
FLN 311	Foreign Language -III French II	VA				
FLG 311	German II		2	-	-	2
FLS 311	Spanish II					
FLC 311	Chinese II					
	Open Elective-III	OE				3
MAV 306	Advance Film Making		2		2	
MAV 307	Final Cut Pro	DE	2	-	2	3
MAV 309	Advanced Screen Design		2	-	2	
AND003	Anandam-III	NTCC	-	-	-	2
	TOTAL					30

SEMESTER-IV

Code	Course	Category	L	T	P/FW	Total Credits
MAV 401	Advance Film making and Editing	CC	2	-	2	3
MAV 402	Internship	NTCC	-	-	-	10
MAV403, MAV 404, MAV 405, MAV 406, MAV 407	Professional Project & Showreel & Paper Presentation 2D Animation 3D Animation Motion Graphics VFX Compositing & Video Editing Lighting & Rendering	NTCC	-	-	-	8= 6 for Project+2 for Paper + Showreel Presentation
MAV 408	Brand Designing	DE	3	-	2	4
MAV 409	Individual Showreel	DE	-	-	8	
	TOTAL					25

COURSE OUTCOMES

AMITY SCHOOL Of COMMUNICATION (ASCO)

M.Sc. (G&A)

➤ **[MAV 101]- Introduction to Traditional Method of Animation**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with animation skills.
2. Identify the Essential Skills that an independent 2d animator should have.
3. Possesses the Skills of a professional 2d animator and able to cope with any animation industry.
4. Develop a project that is best for job opportunities

➤ **[MAV-102]-[Digital Art and Editing]**

[MSc- Graphics & Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative editing and manipulation.
2. Create the importance of tools and techniques for digital editing.
3. Apply basic color theories for the color correction in digital editing of the images for the creative industry.
4. Develop the best creative portfolio through the techniques of digital painting and matte painting.

➤ **[MAV-104]-[Introduction to 3D (Modelling, Shading, Lighting)]**

[MSc- Graphics & Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D virtual scene through 3D modelling techniques.
2. Create design of complete 3D background and character for an 3D animation.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the 3D modelling and texturing tools and techniques.

➤ **[MAV 105]-[Stop Motion]**

[MSc-Graphics and Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of any creative topics.
2. Create the creative animation as per need.
3. Apply the motion, speed, Gravity etc. on animated objects.
4. Develop the showreel for best job.

➤ **MAV 106-[Grammar of Film]**

Course Outcomes (CO)

At the successful completion of this course you should be able to:

1. Investigate and explore all types of film shots and significance of the meaning .
2. Develop the technical knowledge on video camera handling.
3. Apply creativity skills through using natural and artificial lights in video shooting
4. Create own film through three phases of film production.

➤ **[MAV 107]-[Print Design and Typography]**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with designing skills.
2. Identify the Essential Skills that an independent graphic designer should have.
3. Possesses the Skills of a professional graphic designer and able to cope with any designs.
4. Develop a project that is best for job opportunities

➤ **[MAV-103]-[Scripting for Animation & Film]**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative script writing.
2. Create the impart in depth knowledge regarding various stage of script writing.
3. Apply basic writing techniques and theories for story writing.
4. Develop the best creative story through the writing tools and implement it in the film.

➤ **[MAV 301]- [Advanced 3D(Particles and Dynamics)]**

[MSc-Graphics and Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative virtual light scenes through 3D Particles and dynamics techniques.

2. Create design of complete 3D background and characters with photorealistic Particles and dynamics.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the 3D Particles and dynamics and texturing tools and techniques.

➤ **[MAV-302]-[3D Match Moving]**

[MSc- Graphics & Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative 3D Match moving and tracking techniques.
2. Create realistic composition of 3D character/scene through industry specific tools.
3. Apply basic 3D/2D tracking to real scene and creating full composition of virtual scene.
4. Develop a creative portfolio through the 3D match moving and tracking tools and techniques.

➤ **[MAV-303]-[Visual Effects-II]**

[MSc- Graphics & Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative visual effects and compositions techniques.
2. Create realistic composition of 3D character/scene with real shots through industry specific tools.
3. Apply basic visual effects to real scene and creating full composition of virtual scene.
4. Develop a creative portfolio through the visual effects and tracking tools and techniques.

➤ **[MAV - 304]-[Production Pipeline]**

[MSc- Graphics & Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creating a production plan for the films.
2. Create design of complete production stages for the story of a movie.
3. Apply basics of production process to create a final proposal for animated short.
4. Develop a creative portfolio for their own story/idea to create the animation movie.

➤ **[MAV 306]-[Advance Film Making]**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with Advance Film Making skills.

2. Identify the Essential Skills that an independent Advance Film Making should have.
3. Possesses the Skills of a professional Advance Film Making and able to cope with any basic Advance Film Making.
4. Develop a project that is best for job opportunities

➤ **[MAV 201]-3D Animation**

[MSc-Graphics and Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative virtual light scenes through Rigging and Animation techniques.
2. Create design of complete 3D background and characters with photorealistic Particles and dynamics.
3. Apply basic shader to models and creating full scene with complete texture.
4. Develop a creative portfolio through the Rigging and Animation and texturing tools and techniques.

➤ **[MAV 202]-[Digital Film Making & Video Editing-I]**

Course Outcomes (CO)

1. Comprehend and demonstrate themselves in any organization or individually with shoot and edit various films, videos, webseries, tv productions.
2. Identify the Essential Skills that an independent Film maker and a video editor should have and utilize the knowledge of camera skills and editing skills.
3. Possesses the Skills of a professional independent Film maker and a video editor and able to cope with any basic requirement of the client.
4. Develop a showreel that is best for Film maker and a video editor.

➤ **MAV 203-Sound and Camera Skills**

Course Outcomes (CO)

At the successful completion of this course students should be able to:

1. Demonstrate the skills, theoretical knowledge, of digital cameras, particularly DSLRs and digital audio recorders.
2. Develop reasonable understanding of editing software and relevant AV formats.
3. Create and maintain a professional portfolio of creative experiments with camera and sound.
4. Demonstrate the capacity to render emotive ideas through simple juxtaposition of different frames and sound layers: a skill that shall continue to aid students in their projects in graphics and animation projects.
5. Being able to learn from discussion and review of presentations by peers.

➤ **[MAV 204]-[Visual Effects-1]**

[MSc – Graphics And Animation]

Program learning outcomes (CO)

List the Course Outcomes (CO) that prescribe the knowledge, attitudes, skills and practices that students are expected to acquire and demonstrate in completing this course.

At the successful completion of this course you (the student) should be able to:

1. Understand the visualization of storyboard, Visual Effects.
2. Understand the significance and role of combining live Action with Animation.
3. Demonstrate the Morphing – Still and Dynamic, Deformation Effects.
4. Display familiarity with essential skills and technical knowhow that a professional VFX designer must Fire and Smoke Effects Liquid Animation and Effects.

➤ **[MAV 205]- [Motion Graphics]**

[MSc – Graphics And Animation]

Program learning outcomes (CO)

List the Course Outcomes (CO) that prescribe the knowledge, attitudes, skills and practices that students are expected to acquire and demonstrate in completing this course.

At the successful completion of this course you (the student) should be able to:

1. Understand the visualization of storyboard, Visual Effects.
2. Understand the significance and role of combining live Action with Animation.
3. Demonstrate the Morphing – Still and Dynamic, Deformation Effects.
4. Display familiarity with essential skills and technical knowhow that a professional VFX designer must Fire and Smoke Effects Liquid Animation and Effects.

➤ **[MAV 206]- [CORPORATE COMMUNICATION]**

Course Outcomes (CO)

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Student will get an insight and awareness about the concept, principles and practices of Corporate Communication.
2. Student will be able to have an overview of the various practical aspects of corporate communication along with the functioning and various avenues of agencies.
3. Student will have an understanding the ethical aspects of corporate communication.

➤ **[MAV 401]-[Advance Film Making & Editing]**

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Comprehend and demonstrate themselves in any organization or individually with Advance Film Making skills.
2. Identify the Essential Skills that an independent Advance Film Making should have.
3. Possesses the Skills of a professional Advance Film Making and able to cope with any basic Advance Film Making.
4. Develop a project that is best for job opportunities.

➤ **[MAV-409]-[Individual Showreel]**

[MSc- Graphics & Animation]

Course Outcomes (CO)

At the successful completion of this course you (the student) should be able to:

1. Investigate the Idea of creative visual effects and compositions techniques.
2. Create realistic composition of 3D character/scene with real shots through industry specific tools.
3. Apply basic visual effects to real scene and creating full composition of virtual scene.
4. Develop a creative portfolio through the visual effects and tracking tools and techniques.



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY LAW SCHOOL (ALS)

BA LL.B. (Hons)

12111

Duration – 5 Year Full Time

Programme Structure

Credits Summary

BA LL.B (Hons.)						
(05 Years/ 10 Semesters)						
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Elective (OE)	Non- Teaching Credit Courses (NTCC)	Total
I	19	-	2	-	2	23
II	18	-	2	3	2	25
III	20	-	5	3	2	30
IV	23	-	2	3	2	30
V	19	4	3	3	2	31
VI	15	8	3	3	2	31
VII	19	8	-	-	2	29
VIII	15	12	-	-	2	29
IX	16	12	-	-	2	30
X	8	12	-	-	4	24
Total	172	56	17	15	22	282

Total Credits (23+25+30+30+31+31+29+29+30+24) = 282

CC = Core Course

DE = Domain Elective

OE = Open Elective

VAC = Value Added Course

NTCC = Non -Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

1. Interpret And Analyze the legal and social problems and work towards finding solutions to the problems by application of laws and regulations. Function individually and in teamwork for betterment of society and also able to understand the working of courts, arbitration courts, international courts and arbitration events.
2. Practice the use of lifelong learning by advising clients in civil and criminal cases as well as in teaching profession. Also to Inculcate values of Rights and Duties, and transfer these values to real-life through legal and judicial process for promoting community welfare.
3. Understands the standards of conduct involved in practice of law and demonstrate values of legal profession. This inculcate ethical responsibilities towards clients in a legal system and to Apply ethical principles and commit to legal professional ethics, responsibilities and norms of the established legal practices
4. Apply students analytical and research skills, equipping them with generic skills they will need in their future careers in different professions
5. To study law in the context of Humanities and Social Sciences to groom students to respond to governance, administration and Human behavior.

Program Structure

AMITY LAW SCHOOL (ALS) BA LL.B. (Hons)

Semester-I

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
ILB 101	Introductory Microeconomics	CC	3	1	0	4
ILB 102H	History I	Select any One	3	1	0	4
ILB 102D	India's Defence Policy and Organisation	CC				
LLB101	Legal English	CC	2	1	0	3
LLB102	Legal Method & Legal System	CC	3	1	0	4
LLB103	Law of Contract-1	CC	3	1	0	4
AND001	Anandam – I	NTCC	2	0	0	2
BSS105	Behavioural Science-I	VAC	1	0	0	1
	(Understanding Self for Effectiveness)					
FLLF 101	French -I	VAC	1	0	0	1
FLLG 101	German-I	VAC				
FLLS 101	Spanish-I	VAC				
FLLC 101	Chinese-I	VAC				
Total						23

B.A. LL.B (Hons.)Semester-II

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
ILB 201	Intermediate Microeconomics	CC	3	1	0	4
ILB 202H	History II	Select any One	3	1	0	4
ILB 202D	Science & Technology and National Security	CC				
LLB201	General English	CC	2	1	0	3
LLB202	Law of Contract-II	CC	3	1	0	4
LLB203	Basics of Computer Applications	CC	3	1	0	2
LLB204	Fundamentals of Moot Court – I	CC	2	0	0	1
AND002	Anandam –II	NTCC	1	0	0	2
BSS 205	Behavioural Science-II (Problem Solving and Creative Thinking)	VAC	1	0	0	1
FLLF 201	French-II	VAC	1	0	0	1
FLLG201	German-II	VAC				
FLLS201	Spanish-II	VAC				
FLLC201	Chinese-II	VAC				
MTLOE202	LEGAL FACET OF BUSINESS	OE	2	1	-	3
Total						25

B.A. LL.B (Hons.)Semester-III

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
ILB 301	Introductory Macroeconomics	CC	3	1	0	4
ILB 302H	History –III	Select any One	3	1	0	4
ILB 302D	War and Peace in Modern Age					
LLB301	Law of Crimes-I	CC	2	1	0	3
LLB302	Law of Torts (Accidental Clams) and Consumer Protection Act	CC	3	1	0	4
LLB303	Family Law-I	CC	3	1	0	4
LLB 304	Fundamentals of Moot court – II	CC	1	0	0	1
AND003	Anandam – III	NTCC	2	0	0	2
EVS 001	Environmental Studies& Disaster Management	VAC	2	1	0	3
BSS 305	Behavioural Science-III (Interpersonal Communication and Relationship Management)	VAC	1	0	0	1
FLLF 301	French-III	VAC	1	0	0	1
FLLG 301	German-III	VAC				
FLLS 301	Spanish-III	VAC				
FLLC 301	Chinese-III	VAC				
MTLOE302	Family Law	OE	2	1	-	3
Total						30

B.A. LL.B (Hons.)Semester-IV

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
ILB 401	Public Economics	CC	3	1	0	4
ILB 402	Political science-I	CC	3	1	0	4
LLB401	Law of Crimes-II	CC	2	1	0	3
LLB402	Family Law-II	CC	3	1	0	4
LLB403	Constitutional Law – I	CC	3	1	0	4
LLB404	Jurisprudence	CC	3	1	0	4
AND004	Anandam – IV	NTCC	2	0	0	2
BSS 405	Behavioural Science-IV (Group Dynamics and Team Building)	VAC	1	0	0	1
FLLF 401	French-IV	VAC	1	0	0	1
FLLG 401	German-IV	VAC				
FLLS 401	Spanish-IV	VAC				
FLLC 401	Chinese-IV	VAC				
MTLOE403	Constitutional Law	OE	2	1	-	3
Total						30

B.A. LL.B (Hons.)Semester-V

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
ILB 501	Indian Economy	CC	3	1	0	4
ILB 502	Political Science-II	CC	3	1	0	4
LLB501	Code of Civil Procedure & Limitation Act- - I	CC	2	1	0	3
LLB502	Interpretation of Statutes	CC	3	1	0	4
LLB503	Constitutional Law – II	CC	3	1	0	4
AND005	Anandam – V	NTCC	2	0	0	2
BSS 505	Behavioural Science-V (Individual, Society and Nation)	VAC	1	0	0	1
BCS 501	Communication Skills – I	VAC	1	0	0	1
FLLF 501	French-V	VAC	1	0	0	1
FLLG 501	German-V	VAC				
FLLS 501	Spanish-V	VAC				
FLLC 501	Chinese-V	VAC				
	Optional Papers -I: (Select any One)					
LLB504	Local Self Government in India	DE	3	1	0	4
LLB505	Agriculture & Law					
MTLOE505	Biodiversity and Law	OE	2	1	0	3
Total						31

B.A. LL.B (Hons.)Semester-VI

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
ILB 601	Development Economics	CC	3	1	0	4
ILB 602	Political science— III	CC	3	1	0	4
LLB601	Code of Civil Procedure –II	CC	2	1	0	3
LLB602	Administrative Law	CC	3	1	0	4
AND006	Anandam - VI	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER I (Select any One)					
LLB 603 CP	Human Rights Law & Practice (Constitutional Law Hons Paper-I)	DE	3	1	0	4
LLB 603 CG	Law and Economics (Corporate Law Hons. Paper -I)					
LLB 603 IPR	Patent Law (IPR- Hons. Paper -I)					
LLB 603 ITL	General Principles of GATT and World trade Organization Law (International Trade law- Hon. Paper –I)					
LLB 603 CRL	Criminology (Criminal Law Hon. Paper-I)					
BSS 605	Behavioural Science-VI(Stress and Coping Strategies)	VAC	1	0	0	1
BCS 601	Communication Skills – II	VAC	1	0	0	1
FLLF601	French-VI	VAC	1	0	0	1
FLLG601	German-VI	VAC				

FLLS601	Spanish-VI	VAC				
FLLC601	Chinese-VI	VAC				
	Optional Papers - II: (Select any One)					
LLB604	Land Law including Tenure and Tenancy System	DE	3	1	0	4
LLB605	Cyber Law					
MTLOE606	Introduction to Criminal Law in India	OE	2	1	0	3
Total						31

B.A. LL.B (Hons.)Semester–VII

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
LLB 701	Labour Law I	CC	3	1	0	4
LLB 702	Law of Evidence	CC	3	1	0	4
LLB 703	Code of Criminal Procedure – I	CC	2	1	0	3
LLB 704	Company Law	CC	3	1	0	4
LLB 705	Alternate Dispute Resolution (Clinical -I)	CC	3	1	0	4
AND007	Anandam - VII	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER II (Select any One)					
LLB 706 CP	Right to Information (Constitutional Law Hons Paper-II)	DE	3	1	0	4
LLB 706 CG	Corporate Governance (Corporate Law Hons. Paper – II					
LLB 706 IPR	Copy Right (IPR-Hons. Paper -II)					
LLB 706 ITL	Private International Trade Law (International Trade law-Hon. Paper –II)					
LLB 706 CRL	Penology & Victimology(Criminal Law Hon. Paper-II)					
	Optional Papers -III:(Select any One)					
LLB 708	Socio-Economic Offences	DE	3	1	0	4
LLB 709	Sports Law					
Total						29

B.A. LL.B (Hons.)Semester–VIII

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
LLB 801	Labour Law II	CC	3	1	0	4
LLB 802	Law on Transfer of Property , Easement , Trust & Equity	CC	3	1	0	4
LLB 803	Code of Criminal Procedure –II	CC	2	1	0	3
LLB 804	Intellectual Property Rights	CC	3	1	0	4
AND008	Anandam - VIII	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER III (Select any One)					
LLB 805 CP	Law and Education(Constitutional Law Hons Paper -III)	DE	3	1	0	4
LLB 805 CG	Competition Law (Corporate Law Hons. Paper -III)					
LLB 805 IPR	Trade Mark & Designs Act (IPR Hons Paper-III)					
LLB 805 ITL	Dispute Settlement and International Trade Law and Investment Law (International Trade law- Hon. Paper –III)					
LLB 805 CRL	Forensic Science-I(Criminal Law Hon. Paper-III)					
	Domain Elective HONOURS PAPER IV (Select any One)					
LLB 806 CP	Gender Justice and Feminist Jurisprudence(Constitutional Law Hons Paper -IV)	DE	3	1	0	4
LLB 806 CG	Bankruptcy and Insolvency (Corporate Law Hons. Paper -IV)					
LLB 806 IPR	Advance IPR (IPR Hons Paper-IV)					
LLB 806 ITL	International Trade remedies (International Trade law- Hon. Paper –IV)					
LLB 806 CRL	International Criminal Law (Criminal Law Hon. Paper-IV)					
	Optional Papers -IV: (Select any One)					

LLB 808	Banking & Insurance Law	DE	3	1	0	4
LLB 809	Air & Space Law					
Total						29

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
LLB901	Law of Taxation	CC	3	1	0	4
LLB902	Public International Law	CC	3	1	0	4
LLB903	Environmental Law	CC		1	0	4
			3			
LLB904	Mediation & Conciliation and Arbitration	CC		1	0	4
			3			
AND009	Anandam - IX	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER V (Select any One)					
LLB 905 CP	Federalism (Constitutional Hons. Paper-V)	DE	3	1	0	4
LLB 905 CG	Corporate Financing (Corporate Law Hons Paper-V)					
LLB 905 IPR	IPR Management (IPR Hons Paper-V)					
LLB 905 ITL	Law of International Commercial Arbitration (International Trade law-Hon. Paper – V)					
LLB 905 CRL	Forensic Science-II (Criminal Law Hon. Paper-V)					
	Domain Elective HONOURS PAPER VI (Select any One)					
LLB 906 CP	Media Law (Constitution Law Hons. Paper-VI)	DE	3	1	0	4
LLB 906 CG	Corporate Taxation (Corporate Law Hons Paper-VI)					
LLB 906 IPR	IPR Litigation (IPR Hons. Paper-VI)					
LLB 906 ITL	International Investment law (ITL Hons. Paper-VI)					
LLB 906 CRL	Probation and Parole (Criminal Law Hon. Paper-VI)					
	Optional Papers -V: (Select any One)					
LLB907	International Trade Law	DE	3	1	0	4
LLB908	Animal Protection Law					
Total						30

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
LLB1001	Moot court exercise and Internship(Clinical -II)	NTCC	3	1	0	4
LLB1002	Professional Ethics, Accountancy for Lawyers & Bar Bench Relations (Clinical -III)	CC	3	1	0	4
LLB1003	Drafting Pleading & Conveyance (Clinical -IV)	CC	3	1	0	4
	Domain Elective HONOURS PAPER VII (Select any One)					
LLB 1004 CP	Comparative Constitution (Constitutional Hons. Paper-VII)	DE	3	1	0	4
LLB 1004 CG	Law on Infrastructure Development(Corporate Law Hons Paper-V)					
LLB 1004 IPR	Bio Diversity Protection (IPR Hons Paper-VII)					
LLB 1004 ITL	Law of IPR in International Trade law (ITL Hons. Paper – VII)					
LLB 1004 CRL	Comparative Criminal Procedure (Criminal Law Hon. Paper-VII)					
	Domain Elective HONOURS PAPER VIII (Select any One)					
LLB 1005 CP	Health Law (Constitution Law Hons. Paper-VIII)	DE	3	1	0	4
LLB 1005 CG	Law on Project Finance (Corporate Law Hons Paper-VIII)					
LLB 1005 IPR	Patent Drafting and Specification Writing (IPR Hons. Paper-VIII)					
LLB 1005 ITL	Maritime Law (ITL Hons. Paper-VIII)					
LLB 1005 CRL	Offences Against Child & Juvenile Offences (Criminal Law Hon. Paper-VIII)					
	Optional Papers -VI: (Select any One)					

LLB1006	Election Law	DE	3	1	0	4
LLB1007	Private International Law					
Total						24

COURSE OUTCOMES

AMITY LAW SCHOOL (ALS) BA LL.B. (Hons)

ILB 101- Introductory Microeconomics

Upon successful completion of the course, the students will be able to:

1. The students will be able to know the various concepts of decision making (consumer & seller)
2. The students will be able to relate concepts to activities and decisions made in market.
3. The students will be able to analyze the impact of key changes on economy.

ILB 102- History I

Upon successful completion of the course, the students will be able to:

- I. Have an insight and awareness about the Ancient, Medieval and Modern Indian History.
- II. Understand the overview of the emergence of administrative system of India.
- III. Evaluate and analyze the freedom struggle movement.

LLB 101- Legal English

At the successful completion of this course you (the student) should be able to:

1. The Students will be well acquainted with the emergence of history of Legal English.
2. Able to understand the meaning and usage of various legal terms and maxims.
3. To learn the effective legal drafting and research reviews.
4. Incorporate the significance of Case Commentary and Literature Review.

LLB 102- LEGAL METHOD & LEGAL SYSTEM

Upon successful completion of this course students will be able to:

1. Students will be able to have a conceptual understand on the meaning of law and to distinguish between the different types of laws.
2. Students will be able to tell the different sources of law and their relationship inter se.
3. Students will be able to discuss the fundamental concepts underlying indian law, and appreciate the working of the judicial system in india.

4. Students will be able to read, analyse and understand different legal materials, and to narrate the reasoning employed by judges in their judgements

LLB 103]- LAW OF CONTRACT - I

On successful completion of the course students will be able to:

1. Investigate the validity and enforceability of the contract
2. Interpret primary materials relevant to commercial law and apply the law to commercial problems to determine an arguable outcome;
3. Evaluate legal principles and employ legal techniques to analyse competing considerations and resolve practical problems in the area of commercial law;
4. Outline basic contract terms that might be used in legal practice;

FLLC-101 Chinese-I

Upon successful completion of the course, the students will be able to:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLF 101 French Language

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLL101(G) -German-I

Upon successful completion of the course, the students will be able to:

1. Identify and express in German vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in German.
4. Narrate clearly ideas, themes in simple standard German.

FLLS 101- SPANISH

Upon successful completion of the course, the students will be able to:

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish and narrate clearly ideas
4. **Narrate** clearly ideas, themes in simple standard Spanish

BSS205- PROBLEM SOLVING AND CREATIVE THINKING]

At the successful completion of this course you (the student) would be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hindrance to problem solving processes.
3. Analyze the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FLLC 201- Course Name: Foreign Language (Chinese)

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.
- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

FLLF 201 - French Language

- At the successful completion of this course the students would be able to:
- Perform communicative tasks (oral and written) like:
 1. Identify and express in French vocabulary and grammar norms
 2. Interpret different types of texts as well as cultural ideas and themes.
 3. Demonstrate comprehension of nuance between script and sound in French
 4. Narrate clearly ideas, themes in simple standard French

FLLG-201- German

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.
- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

FLLS 201-SPANISH

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.
- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

ILB 201- INTERMEDIATE MICROECONOMICS

- At the successful completion of this course, the student should be able to:
- 1. Analyze the impact of different types of costs on production & output.
- 2. Examine how firms take decision in a competitive market.
- 3. Analyze the effects of monopoly on firms & consumers.
- 4. Examine how firms behave in monopolistic & oligopolistic markets to meet their desired objectives.

ILB 202-History II

At the successful completion of this course you (the student) should be able to:

1. Overview of the History of Modern India
2. Understanding the reforms and revision in the judicial system
3. Studying the Social reforms of 19th century
4. Understanding the Constitutional Development

LLB 202-LAW OF CONTRACT – II

Upon successful completion of this course students will be able to:

1. Analyse and evaluate the nature and meaning of the different types of contracts i.e. the contract of indemnity, guarantee, bailment and agency, the regulation of the form of contracts, and rights, duties and obligations of parties.
2. Analysis the partnership, right, duties and obligations of partner, whether the minor be admitted for benefit in partnership, how a partnership dissolved and effect of non-registration of firm.
3. Students will able to know about the process of recovery of the possession of property, which kinds of contract can be specifically enforceable and what is declaratory suit and injunction and when the Court allows this type of remedies.
4. Recovery of property, Specific performance of contracts, Rescission of Contract, Declaratory Decree, Injunctions: Temporary and Perpetual, Mandatory

LLB 201-General English

At the successful completion of this course you (the student) should be able to:

1. The Students will be well acquainted with the emergence of history of General English.
2. Able to understand the meaning and usage of various General terms and maxims.
3. To analyse about the terms that often confuse while drafting.
4. To learn the effective General drafting and research reviews.

LLB.- 203-BASICS OF COMPUTER APPLICATION

After completing this course, students will be able to:

1. Show an awareness of what the major computer components are and how they act as system.

2. Demonstrate a knowledge and understanding of using computers to solve problems related to practical applications
3. Appreciate that computers need instructions to operate and acquire simple programming skills.
4. Demonstrate a basic understanding of computer hardware and software
- 5 Apply the skills that are the focus of this program to business scenarios

LLB 204-Fundamentals of Moot Court- I

At the successful completion of this course you (the student) should be able to:

1. To acquire knowledge of the legal, procedural and practical aspects of field.
2. Analyse legal problems and research the legal issues in a collaborative group environment.
3. Students will come to know about the Origin and sources of law.
4. What are the role of library in legal study, how we interpret the date, what are the importance of journal, magazine, books in legal field, how we do the case analysis, how the legal research be made, essay writing and manners of citation.

FLLC-301- Chinese-III

At the successful completion of this course you (the student) should be able to:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLF- 301(French -III)

At the successful completion of this course the students would be able to:

- i. Perform communicative tasks (oral and written) like:
 1. Identify and express in French vocabulary and grammar norms
 2. Interpret different types of texts as well as cultural ideas and themes.
 3. Demonstrate comprehension of nuance between script and sound in French
 4. Narrate clearly ideas, themes in simple standard French

FLLG-301-German

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLS 301-Spanish

At the successful completion of this course you (the student) should be able to

- ii. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- iii. Students will be able to read and interpret small texts .
- iv. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- v. Students will be able to communicate in small sentences in oral, self introduction, family description etc

ILB 301-Introductory Microeconomics

On successful completion of this course, students will be able to:

1. Explain the concepts of economic development and growth, poverty and inequality, persistence of inequality, growth strategy for India, and how they are measured.
2. Explain the planning process, objectives and relevance of five-year plans for India to analyze the policy decisions
3. Describe the international trade and its multiplier impact on Indian manufacturing sector.
4. Describe economic reforms and its relevance in Indian context. Also highlight the importance of FDI for make in India (current context)

ILB 302H-History III

At the successful completion of this course you (the student) should be able to:

1. Overview of the political conditions and scenario of Europe in Modern times.
2. Understand causes and consequences of various revolutions.
3. Examine the causes and consequences of World Wars

LLB 301-Law of Crimes - I

Students must gain knowledge on:

1. Concept of Crime and its penological system.
2. Penology is to understand the penal system in India with the application of theories.
3. To get acquit with the general terms and defences in statute.
4. Skills to analyze the crime and application of penal system as per the provisions.
5. Building up of the legal position and composition of procedural documents on cases in the sphere of criminal law.

LLB 302-LAW OF TORT(Accidental Clams) & CONSUMER PROTECTION ACT

At the successful completion of this course you (the student) should be able to:

1. Investigate the matter that the particular subject matter comes in the ambit of Law of Torts & Consumer Law and what are the rights & defences available in this regards.
2. Create in his mind that what are the laws are relating to State liability, vicarious liability , use of subject matter that could be applicable to the masses.
3. Student will be able to apply principles for the application of the rule of torts and negligence.
4. Develop knowledge regarding all rights. Student will come to know that consumer act is actually directing towards and types of remedies available against any violation. Every

remedy under CPA & pecuniary jurisdiction & jurisdiction in general of the aggrieved party.

LLB 303-FAMILY LAW - I

On successful completion of this course, students will be able to:

1. Comprehend and explain key legal concepts underpinning India's Family Law system.
2. Critically evaluate the challenges and debates surrounding Family Law, including the ethical and professional responsibilities of those practising in it.
3. Identify, analyse and critically assess disputes between parties to a marriage, or parties in a de facto relationship, involving issues of property, children and spousal maintenance.
4. Demonstrate legal problem-solving skills, which generate appropriate responses to complex statutory problems in the field of Family Law.
5. Communicate effectively, appropriately and persuasively on Family Law matters.
6. Learn and work autonomously and collaboratively, using feedback to improve capability and performance.

LLB 304-Fundamentals of Moot Court - II

1. To acquire knowledge of the legal, procedural and practical aspects of field.
2. Analyse legal problems and research the legal issues in a collaborative group environment.
3. Students will come to know about the Origin and sources of law.
4. What are the role of library in legal study, how we interpret the date, what are the importance of journal, magazine, books in legal field, how we do the case analysis, how the legal research be made, essay writing and manners of citation.

BSS405-GROUP DYNAMICS AND TEAM BUILDING

At the successful completion of this course you (the student) would be able to:

1. Compare the difference between the groups and teams and their strength and weaknesses. Also, the internal and external factors that affect their functioning.
2. Access when there is a need of group formation and when it is needed to be transformed into team.
3. Identify the characteristics of leaders and the power practiced by them. Apply the type of leadership style power practiced in different situation

FLLC 401-Course Name: Foreign Language Chinese

At the successful completion of this course you (the student) would be able to:

- a. To produce global citizens speaking an International language in keeping with the institutional vision .
- b. To give students a platform to understand Culture and Society of a different world.
- c. To enhance the possibilities of jobs in MNCs established in/outside the country.
- d. To enhance the possibilities of Studying Abroad

FLT 401 French

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLLG – 401-German

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. To produce global citizens speaking an International language in keeping with the institutional vision .
2. To give students a platform to understand Culture and Society of a different world.
3. To enhance the possibilities of jobs in MNCs established in/outside the country.
4. To enhance the possibilities of Studying Abroad

FLS 401- SPANISH

At the successful completion of this course you should be able to:

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish
4. **Narrate** clearly ideas, themes in simple standard Spanish

ILB 402-Political Science I

At the successful completion of this course you should be able to:

1. **CO 1-** To introduce and familiarize students with the nature, meaning and scope of political science
2. **CO 2-** To make students understand the importance of key concepts like state, Sovereignty, rights and obligations .
3. **CO 3-** To make students learn the different ideas and concepts in political science and the underlying theories and rationale behind them.
4. **CO 4- To develop adaptive understanding** in students in regard to key political philosophy.

LLB 403-CONSTITUTIONAL LAW – I

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Explain the meaning, nature and salient features of the Constitution of India.
2. Study the Meaning, Objects and Importance of Preamble of constitution of India.

3. Trace out the historical Aspects of the fundamental Rights guaranteed to the citizens and Non- citizens of India.
4. Examine the Importance of relationship of fundamental rights and Directive principles of state policy and their role in achieving the constitutional goals.
5. Analyze the role of State and Citizens in relation to Fundamental rights and fundamental duties respectively, guaranteed by the constitution.

ILB 404-JURISPRUDENCE

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Knowledge regarding the basic concept of law with the different views of jurist's whole over the world.
2. Understanding the different concepts of law and its application in the present Indian legal system
3. Knowledge of different types of law and its importance.

BSS 505-Behavioural and Allied Science

At the successful completion of this course you (the student) would be able to:

1. Identify the domains to develop as an individual society and nation level.
2. Recognize different ways to achieve personal excellence, professional power and professional success.
3. Analyse different techniques for career planning, setting goals to maintain focus, stress management for healthy living.
4. Apply different skills to achieve personal and professional success.

FLC 501 CHINESE

At the successful completion of this course you (the student) would be able to:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLT501 French

At the successful completion of this course the students would be able to:
Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

4. Narrate clearly ideas, themes in simple standard French

FLG-511-German

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

1. Students will be able to ask and tell time.
2. Students will be able to frame sentences using Separable verb.
3. Student will be able to write and speak sentences using the modal verb.
4. Students will be able to frame sentences and speak using was/were/had.

FLS 501/511

At the successful completion of this course you should be able to:

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish
4. **Narrate** clearly ideas, themes in simple standard Spanish

ILB 502- Political Science-II (MINOR)

1. Able to understand different Organs of Government.
2. Capable to compare organs of government in different forms of government
3. Can differentiate between state and government.
4. Able to understand different forms of government prevailing in different countries.
5. Will be able to understand theory of federalism and essential doctrines related to its functioning.
6. Able to compare federal government of India with that of U.S.A.
7. Understand the theory of judicial review in context of India and America.
8. Comprehend and ability to analyze the role of Political Parties and Pressure Groups.
9. Able to understand the concept of Democracy and its various types.
10. Will be able to understand the functioning of democracy through methods of representation and its different kinds.
11. Understand the concept and formation of public opinion and rule of law.
12. Able to understand the distinctiveness of Indian party system and different factors affecting the social base and formation of Indian parties like Caste, Religion and Region.

ILB 501- CODE OF CIVIL PROCEDURE I & LAW OF LIMITATION

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in civil procedure law and its development, the nature of the legal controls over civil procedure, the operation, regulation.
2. Recognize the issues involved in the implementation and enforcement of Civil Procedure law;

3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies;

ILB 502- Interpretation of Statutes

On successful completion of this course, a student will be able to:

- I. Locate, identify and be able to critically analyse relevant statutes, statutory provisions and legislative instruments, as well as pertinent judicial authority;
- II. Interpret the appropriate provisions using the accepted tools and techniques of statutory interpretation;
- III. Apply statutory provisions to fact scenarios and communicate the interpretation, nature and effect of statutory provisions to relevant stakeholders, such as clients and courts.

LLB 503-CONSTITUTIONAL LAW – II

Upon completion of the course, the student should demonstrate mastery of the following knowledge and skills:

1. To enable students to understand the Constitution of India in entirety.
2. To understand the Basic feature of Indian Constitution.
3. To know the FR, DPSP and FD
4. To know the Relation between the FR, DPSP and FD.

LLB 504-LOCAL SELF GOVERNMENT IN INDIA

Upon successful completion of this course students will be able to:

1. Analyse and evaluate the nature and meaning of the different types of Government i.e. federal Government, parliament form of government and local self Government.
2. Analysis the constitution, composition, powers, functions, duties of Gram Panchayat and their importance in democratic country.
3. Analysis the constitution, composition, powers, functions, duties of Urban Panchayat and their importance in democratic country.
4. Students will able to know about the election process of Panchayat and litigation in election matter.

LLB 505-AGRICULTURE & LAW

Upon successful completion of this course students will be able to:

1. Introduction and historical information on Agriculture Law and its importance.
2. Acquire legal skills of corporate legal handling.
3. Capable of the advanced legal application of law in emerging areas.

BSS 603/604/605- Behavioural and Allied Sciences

At the successful completion of this course you (the student) would be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyse symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FLLC 601- Foreign Language Chinese

On the completion of the Fourth semester the Chinese students will be able to:

1. Use words and expressions related to greetings and farewell in their verbal and written communication.
2. Exchange detailed personal information in Chinese.
3. Give self-introduction.

FLN601/611- French

At the successful completion of this course you should be able to:

1. **Identify** and express in French vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate comprehension** of nuance between script and sound in French
4. **Narrate clearly** ideas, themes in simple standard French

FLLG -601- German

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS 601-SPANISH

At the successful completion of this course you should be able to:

1. **Identify** and **express** in Spanish vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate** comprehension of nuance between script and sound in Spanish
4. **Narrate** clearly ideas, themes in simple standard Spanish

ILB 602

Political Science- III

At the successful completion of this course you should be able to:

1. **CO 1- To introduce and familiarize** students with the nature and scope of International Relations
2. **CO 2- To make students understand** the key characteristics of International relations, especially in relation to the Indian Foreign policy

3. **CO 3- To make students learn the history of world politics , especially that of war and peace.**
4. **CO 4- To develop adaptive understanding** in students in regard to key concepts and ideas of International relations

LLB 603 CRL-CRIMINOLOGY

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Study the meaning, objects, and importance of criminology and criminal justice system in India
2. Understand the general principles and theories of criminology evolved at national and international level.
3. Identify the basic causes of criminal behaviour and possible solutions
4. To analyse the role of courts towards criminal justice system.

LLB 601-Civil Procedure Code

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in civil procedure law and its development, the nature of the legal controls over civil procedure, the operation, regulation.
2. Recognize the issues involved in the implementation and enforcement of Civil Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies;

LLB 602-ADMINISTRATIVE LAW

Upon successful completion of this course students will be able to:

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in administrative law and its development.
2. Recognize the issues involved in the implementation and enforcement of administrative law.
3. Analyse & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 603 CG-Law and Economics (Corporate Law Hons.)

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Identify and to Investigate the significance of Economics in the field of Law
2. Learn the process of Economic Analysis to understand the structure of law in the fields of Contracts , property law, tort law and to correlate the concept of economics with these

3. Understanding the requisites of Economic Theory of Contract law, Compensation Jurisprudence and Property Rights.
4. Learn the scope of interdisciplinary nature of Economics and relate it with Law disciplines and to provide professional skills in business-legal industry

ILB 603CP -HUMAN RIGHTS LAW AND PRACTICES

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Overview of the origin and development of human rights
2. Knowledge of the reforms and revision made by the international bodies towards the development of the vulnerable sections of the society.
3. Knowledge of collective rights recognized by the Indian Government and the judiciary
4. Knowledge of regional approach to human rights

LLB 603 ITL- General Principals of GATT and World Trade Organization Law(International Trade law- Hon. Paper –I)

At the successful completion of this course you (the student) should be able to:

1. CO 1 – Understand the evolution of WTO and Be familiar with the basic structure of the WTO.
2. CO 2 – Understand the nature and scope of General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS).
3. CO 3 – Be able to examine the institutions, procedures and principles governing the settlement of international trade dispute.
4. CO 4 - Understand the evolution of TRIPS and Be familiar with the procedure of TRIPS.

LLB 603 IPR- Patent Law

At the successful completion of this course you (the student) should be able to:

1. **Identify** various laws involved in the field of patents.
2. **Interpret and discuss** the legal problems concerning patents.
3. **Explain** how legal complications arise in matters concerning patents and **relate** it to day-to-day human existence in the current times.

LLB 604-LAND LAWS INCLUDING TENNURE & TENANCY SYSTEM

At the successful completion of this course you (the student) should be able to:

1. Understand the historical, evolutionary, legal conceptual and operational parameters of-land acquisition procedure and rent laws.
2. Understand and appreciate the-Eviction and Dispute Settlement Mechanism
3. Appreciate the Land laws in Rajasthan in detail

LLB 605-Cyber Law

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in Cyber law and its development.
2. Recognize the issues involved in the implementation and enforcement of Cyber law.
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 701-Labour law-I

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in labour laws and its development, the nature of the legal control over industrial relations.
2. Recognize the issues involved in the implementation and enforcement of labour law.
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 702-Law of Evidence

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and principles Evidence.
- (2)--Have a thorough understanding of Various Dimensions of Evidence and Related aspects..
- (3)--Have a clear understanding of law of evidence under Judicial precedent.

LLB 703-CODE OF CRIMINAL PROCEDURE – I

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in criminal procedure law and its development, the nature of the legal controls over criminal procedure, the operation, and regulation.
2. Recognize the issues involved in the implementation and enforcement of Criminal Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 704COMPANY LAW

1. It will enhance knowledge, develop skills, and build capacities and competencies of the students in tackling issues relating to companies.
2. It will enable students to understand the complete procedure of solving internal dispute of companies.
3. The students would be in a position to analyze different provisions of Companies Act, 1956.

ILB 705- ADR (ALTERNATE DISPUTE RESOLUTION)

The student after completion of this course will be able to

1. Understand and differentiate between the Judicial Settlement and ADR Mechanism.
2. Analyse the need and importance of ADR Mechanism
3. Would be able to understand the provisions, its application in the practical field and outcome.
4. Would be able to practice the same in their practical life too.

LLB 706 ILT- PRIVATE INTERNATIONAL TRADE LAW

At the successful completion of this course the student of LL.B. (H) should be able to:

1. To understand of the scope and importance of international trade law and the nature of the legal relationship between international buyers and sellers of goods.
2. To solve complex legal problems involving international trade law and able to be critical of the current law, and be able to propose ways in which the law can be developed.
3. To have a general understanding of the main organisations (in particular the World Trade Organisation) international agreements and relationships which govern and enforce the terms of international commercial transactions
4. To Understand the nature of the legal relationship between international buyers and sellers of goods and to have engaged fully with the current issues in international trade law

ILB 706 IPR-COPY RIGHT

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Students would be able to understand the copyright, & Design Law
2. Students would be able to understand the technicalities in protection of various copyright matters.
3. Students would be able to understand the technicalities in protection of matters of designs.

LLB 706 -Animal Protection Law (Optional Paper)

At the successful completion of this course you (the student) should be able to:

1. CO 1 – Demonstrate an advanced knowledge and conceptual understanding about the Animal Welfare, Animal rights, definition, status of animal welfare in India.
2. CO 2 - Demonstrate a knowledge of the International and national framework of animal-related legislation.
3. CO 3 – Critically evaluate the law in both the protection and exploitation of animals, identifying areas in which the animal law needs reform and strategies to achieve such reform
4. CO 4 – Critically analyse the issues pertaining to the different legislations related to Animal Laws.

LLB 706 Cr.L-Penology & Victimology

At the successful completion of this course the student of LLM (Criminal Law) should be able to:

1. Study the meaning, objects, and importance of criminology and criminal justice system in India
2. Understand the general principles and theories of criminology and punishment evolved at national and international level.
3. Identify the basic causes of criminal behaviour and possible solutions
4. To analyse the role of courts towards criminal justice system.

LLP 706CP-Right to Information

At the successful completion of this course the students should be able to:

1. To Understand the significance of transparent government in a democracy
2. To Acquaints with the right to information as an integral part of freedom of speech and expression
3. To gain Practical knowledge of the ways to demand information from the government.
4. To approach the appropriate forum to seek information from the public authorities.

LLB 801-Labour Law-II

At the successful completion of this course the students should be able to:

1. Application and effect of statutory rules covering wages, compensation and working hours in work place.
2. Concept of social security and their implementation

LLB 802-: Law on Transfer of Property Easement, Trust & Equity

After the successful completion of the course the students will be able to:

1. Understand the basic concepts and principles of transfer of Property Law.
2. Have a thorough understanding of Various concepts like Doctrine of Election , Transfer by Ostensible Owner etc..
3. Have a clear understanding of relation of Property law with other laws like Registration Act 1908 and the Easement Act etc.

LLB 803- CODE OF CRIMINAL PROCEDURE – II

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in criminal procedure law and its development, the nature of the legal controls over criminal procedure, the operation, and regulation.
2. Recognize the issues involved in the implementation and enforcement of Criminal Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 804- INTELLECTUAL PROPERTY RIGHTS

Having completed the above said course, students will be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Intellectual Property Law.
2. Apply Intellectual Property Law to assist the aggrieved party in getting justice from the court of law.
3. Critically understand the efficacy of the above said law.\

LLB 805 CG- Competition Law

After the successful completion of the course the students will be able to:

1. Understand the basic concepts and principles of Competition Law
2. Have a thorough understanding of Prohibition of certain agreements, Abuse of Dominant position and Regulation of Combinations, Anti-competitive agreements, Abuse of dominant position, Combination. Regulation of combinations
3. Have a clear understanding of Duties, Powers and Functions of Commission

ILB 805 CP- Law and Education

The student after completion of this course will be able to

1. Analyze the need and importance of Right to education as a fundamental right
2. historical aspect and further development of right to education
3. Understand about the barrier to achieve 100% of literacy.

4. Would be able to understand the importance of the role of Government to achieve such target.
5. What is the Constitutional status of minority regarding right to education.

LLB 805 CRL-FORENSIC SCIENCE-I

The student after completion of this course will be able to:

1. To acquaint with the meaning and system of Organizational Structure.
2. To understand the importance of Forensic Science in collecting evidence.
3. To acquaint with the method of collecting evidences from crime scene.
4. To understand the contribution of Forensic Science in making testimonial documents before Court.

LLB 805 IPR-Trade Mark & Designs Act

At the successful completion of this course you (the student) should be able to:

CO 1 - Demonstrate a comprehensive understanding of essential components of Intellectual Property Rights with special reference to trademark law and their legal character.

CO 2 -Accustom about the procedure of registration and refusal of a trademark and other remedies and also about the rights and duties of their different stakeholders.

CO 3 –An evaluation of different kinds of Intellectual Properties along with an understanding of the concept of Unfair Competition.

CO 4 –International agreements with reference to Trademarks and salient features of Geographical Indications of Goods(Registration and Protection Act) 1999.

LLB 805 ITL -Dispute Settlement and International Trade Law and Investment Law

On successful completion of this course, students will be able to:

1. To demonstrate a thorough understanding of the legal principles of international trade or investment law in general.
2. To know the dispute settlement mechanism under WTO for settlement of international trade disputes.
3. To select and apply the appropriate legal rules to provide solutions to complex legal problems of international trade law.

LLB 806 CP-GENDER JUSTICE & FEMINIST JURISPRUDENCE

(CONSTITUTIONAL LAW HONS. PAPER – IV)

On successful completion of this course, students will be able to:

- i. It will enhance knowledge, develop skills, and build capacities and competencies of the students in tackling issues related to women.
- ii. It will enable students to learn different aspects of women's welfare legislations.
- iii. The student would be in a position to analyze different types of statutes and functioning of various institutions working for women welfare.

LLB 806 CRL-International Criminal Law (Group Paper)

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding the key concepts of International criminal Law.
2. To increase recognition for the ICC, ICJ;
3. Analyze the differences in the jurisdiction of the International criminal court and the jurisdictions of the International criminal tribunal for former Yugoslavia and the International criminal tribunal for Rwanda.

LLB 806 IPR - Advance IPR

On completion of this program, the student should be able to:

1. Explore and explain the substantial & procedural laws in which they are made/ drafted and how students think and understand the legislative setup.
2. Interpret And Analyze the legal and social problems and work towards finding solutions to the problems by application of laws and regulations.
3. Inculcate values of Rights and Duties, and transfer these values to real-life through legal and judicial process for promoting community welfare.
4. Apply ethical principles and commit to legal professional ethics, responsibilities and norms of the established legal practices.
5. Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broader context of legal change.

ILB 806 ITL International Trade Remedies

(International Trade law- Hon. Paper –IV

At the successful completion of this course you (the student) should be able to:

1. CO 1 - Demonstrate an advanced knowledge and conceptual understanding of the specialised area of trade law known as trade remedies law required for professional practice.
2. CO 2 - Demonstrate an advanced and integrated knowledge of laws related to: a) Antidumping Duties; b) Countervailing Duties; and c) Safeguards measures.
3. CO 3 – Assess the settlement of disputes by courts
4. CO 4 - Demonstrate an advanced level of proficiency in researching WTO law relating to trade remedies

LLB 808- Banking & Insurance Law

At the successful completion of this course you (the student) should be able to:

1. Acquaint students with banking system of India.
2. Acquaint students with banking system of India.
3. Various aspects and rights that exists for them in Insurance sector.

LLB 809-Air and Space Law.

At the successful completion of this course you (the student) should be able to:

1. Demonstrate advanced and integrated knowledge of the key principles, rules and institutions relating to the air and space law.
2. Apply specialised knowledge of the key rules and legal policy issues relating to the law regimes on civil aviation, aviation insurance, liability for aviation risks and criminal activity during international air travel.
3. Demonstrate advanced knowledge of the key international treaties relating to outer space and their legal status in international law.
4. Analyse the key rules and policy issues relating to the space objects, commercial use of outer space and the use of outer space for military purposes.
5. Critically evaluate the current status and effectiveness of the key treaties, rules and institutions of international air and space law

LLB 901 -LAW OF TAXATION

Upon the successful completion of the course, the students will be able to:

- i) The students will know the development and application of different provisions of taxation laws.
- ii) The student will gain working knowledge regarding computation of tax liability under Direct and Indirect taxes and the relevant procedures.

LLB 902-Public International Law

On successful completion of this course, students will be able to:

1. Identify the nature of international law and the structure of the international legal system and explain the basic elements of public international law.
2. Apply international law in practical contexts, including the law surrounding the use of force, space law and human rights.
3. Analyse the impact of international law on diverse peoples, and critique the operation of international law from a range of ethical perspectives.

LLB 903-Environment Law

On completion of this program, the student should be able to

1. Explain the conceptual and operational parameters of various special principles/doctrines of Environmental Law.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
3. Critically understand the efficacy of the above said law in to.

LLB 904 -Mediation & Conciliation and Arbitration

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Investigate the significance of Alternative Dispute Resolution framework
2. Learn the differences and effects of Arbitration, Mediation and Conciliation
3. To impart the details of ADR and mediation Laws in various Legislations of India
4. Learn the scope and enforcement of Arbitration & Conciliation Act 1996 as an effective tool of ADR Mechanism

LLB 905 CG- Corporate Financing

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Corporate Law.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
3. Critically understand the efficacy of the above said law in the corporate finance sector.

BBL 905 CP FEDERALISM :

The students would understand a deeper concept of federal model and why was quasi federal model picked for our country specifically; primarily looking at places where has federal and unitary model been adhered to in our exhaustive Constitutional text.

- i) The student would be able to appreciate the true essence and spirit of democracy in light of constitutional principles ensured and enunciated in the textual record, read as the '*law of the land*'.
- ii) The students would be able to problematize and analyze the present day nuances and relevance of federalism in light of landmark judgments so as to appreciate the constitutional evolution.
- iii) Deep understanding of the Indian Constitutional provisions in light of the major doctrines and their evolution as absolute concepts in form of *basic structure* and *judicial activism* along with remedies ensured for the same in the text.
- iv) Analyze the importance of economic, political and social integration in tune with the Constitutional provisions and the impact of judicial pronouncements. Also to evaluate supremacy of Indian Constitution and obliteration of its ethos and the active role of Judiciary to safeguard the Constitution

LLB 905 CRL -FORENSIC SCIENCE-II

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Explain the conceptual and operational parameters of various special principles of Law of Forensics.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned
3. Critically understand the efficacy of the above said law in to.

LLB 905 IPR-IPR Management

1. Explain the conceptual and operational parameters of various special principles/doctrines of Corporate Law.
2. Apply Intellectual Property legal framework to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned
3. Critically understand the efficacy of the above said law in the corporate finance sector.

LLB 905 ITL-Law of International Commercial Arbitration

At the successful completion of this course you (the student) should be able to:

1. Understand the meaning International Commercial Arbitration.
2. Understand the jurisdiction of various international Conventions in relation to International Commercial Arbitration.
3. Analyse the importance of various institution in relation to International Commercial Arbitration and Applicable Laws

4. Study the mechanism for resolution of disputes under International Commercial Arbitration is generally conducted under an International Institution
5. Analyse the recognition and enforcement mechanism for international commercial arbitration Award and its adequacy.
6. Evaluate the Applicability of sovereign immunity Concept and various theories in relation to sovereign immunity in international Commercial Arbitration.

LLB 906 CG-Corporate Taxation (Corporate Law Hons. Paper VI)

On successful completion of this course, students will be able to:

1. To identify the difference between tax evasion and tax planning and will be able to explain different types of incomes and their taxability and expenses and their deductibility.
2. To describe how the provisions in the corporate tax laws can be applied for tax planning.
3. To outline the corporate tax laws and the use of deductions of expenses to reduce the taxable income.

LLB 906CP-Media Law

Having completed the said course, students will be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Media Law.
2. Apply Media Law to assist the aggrieved party in getting justice from the court of law, if at all, his/her grievance is not taken care of by the concerned.
3. Right to speech and expression and restriction thereon.
4. Critically understand the efficacy of the above said law in toto.

LLB 906 CRL-PROBATION AND PAROLE

On completion of this program, the student should be able to

- a. Explain the conceptual and operational parameters of various special principles of Law of Probation and Parole.
- b. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
- c. Critically understand the efficacy of the above said law in to.

LLB906- IPR-IPR Litigation Hons.

1. Skill to understand the concept of intellectual property rights.
2. Develops procedural knowledge to Legal System and solving the problem relating to intellectual property rights.

3. Employability as the Compliance Officer, Public Relation Officer and Liaison Officer.
4. Establishment of Legal Consultancy and service provider.

LLB 906 ITL-International Investment Law

At the successful completion of this course you (the student) should be able to:

1. Understand the legal framework and development of foreign investment in India.
2. Appreciate the legal and practical principles governing foreign Investment in India and examine the role and Perspectives and emergence of bilateral, regional, and multilateral Investments Treaties.
3. Study the role of foreign investment in the development of Nation and also the Responsibilities of foreign investors vis-a-vis environment, human rights and other municipal concerns of host state.
4. Analyse the Trends and issues in treaty-based remedies for foreign investors, the role of foreign arbitral institutions and Recognition and enforcement of foreign arbitral awards with specific reference to India.
5. Evaluate the role of International Centre for Settlement of Investment Disputes (ICSID), essentials conditions for the jurisdiction of ICSID and patterns of consent and meaning of foreign investment under Article 25 of the ICSID.

ILB 907-INTERNATIONAL TRADE LAW

1. Explain the conceptual and operational parameters of various special principles/doctrines of International Trade Law.
2. To inform students of the legal structures and mechanisms that underlie International Trade.
3. To examine major trends in international trade and the role of the WTO, including trade liberalisation.
4. To familiarize students with the treaty obligations of GATT, WTO, GATS and Developing Countries with special emphasis on the developments arising out of the URUGUAY ROUND culminating in the final Marrakesh Treaty International Agreements.

LLB 908 -Animal Protection Law (Optional Paper)

At the successful completion of this course you (the student) should be able to:

1. CO 1 – Demonstrate an advanced knowledge and conceptual understanding about the Animal Welfare, Animal rights, definition, status of animal welfare in India.
2. CO 2 - Demonstrate a knowledge of the International and national framework of animal-related legislation.

3. CO 3 – Critically evaluate the law in both the protection and exploitation of animals, identifying areas in which the animal law needs reform and strategies to achieve such reform
4. CO 4 – Critically analyse the issues pertaining to the different legislations related to Animal Laws.

LLB 1001-Moot court exercise and Internship

At the successful completion of this course you (the student) should be able to:

1. The students are able to understand legal issues at advance level.
2. The students are able to research upon various fields of law and deduce rational decisions out of judicial interpretations.
3. To analyze hypothesis and utilize legal research methodology for justification of legal issues.
4. Projects under the field of law are tested and carried out taking into consideration the legal viewpoints.

ILB 1003-DRAFTING, PLEADING AND CONVEYANCING (clinical) II

Upon successful completion of this course students will be able to:

1. Analyse and apply general principles of drafting and conveyancing
2. Use effective writing techniques to draft different types of legal documents
3. Draft different types of Deeds including deed of sale of land, mortgage deeds, licence deeds, lease deeds, assignment deeds, trust deeds, partnership deeds and power of attorney deeds
4. Draft different types of contracts including commercial agreements, professional services agreement, employment agreements franchise, agency, dealership and distributorship agreements, intellectual property rights agreements, arbitration agreements, foreign collaboration and joint ventures agreements and real estate and tenancy agreements

LLB 1004 CG -Law on Infrastructure Development (Corp. Hons)

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Identify and to Investigate the Constitutional Aspects of Infrastructure Development and Government's Power and appropriate Procedures for execution.
2. To provide knowledge to the students regarding Concept of Eminent Domain and laws of Land Acquisitions.
3. Imparting knowledge to the students in context of various Infrastructure Sectoral polices, reforms in Real Estate, Power Sector/Electricity/ Telecommunications/ Oil & Gas/ Water and Transport and most importantly Public Purpose of provisions.

4. Providing professional and practical skills for better execution of the Infrastructure Laws in concerned sector.

LLB 1004 CP-Comparative Constitution

- i) The students would understand a deeper comparative concept of constitution of different nations.
- ii) The student would be able to appreciate the true essence and spirit of democracy in light of constitutional principles ensured and enunciated in the textual record, read as the '*law of the land*'.
- iii) The students would be able to problematize and analyze the present day nuances and relevance of Constitution in light of landmark judgments so as to appreciate the constitutional evolution.
- iv) Deep understanding of the Constitutional provisions in light of the major doctrines and their evolution as absolute concepts in form of *basic structure* and *judicial activism & review* along with remedies ensured for the same in the text.
- v) Analyze the importance of economic, political and social integration in tune with the Constitutional provisions and the impact of judicial pronouncements. Also to evaluate supremacy of Constitution and its ethos and the active role of Judiciary to safeguard the Constitution and civil liberties.
- vi) Get a sense and nuances of various shades of Parliamentary form of Government with its merits and demerits and the implementation of rule of law besides preserving the basic structure to maintain the sanctity and originality of -Constitution.

LLB 1004 CRL-COMPARATIVE CRIMINAL PROCEDUREL LAW

Upon successful completion of this course students will be able to:

1. An appreciation that what appears "normal" or "just" in the context of one country's criminal procedural laws may appear unusual or unjust in another;
2. An understanding of cross-border and international criminal law enforcement, and some of the problems they raise; A skill at spotting areas of potential misunderstanding among criminal law practitioners from different countries.
3. An understanding of cross-border and international criminal law enforcement, and some of the problems they raise;
4. A skill at spotting areas of potential misunderstanding among criminal law practitioners from different countries.

LLB 1005- IPRBIODIVERSITY PROTECTION

. **Identify** various areas in which laws are required in the field of flora and fauna.

2. **Interpret and discuss** the legal problems concerning Biodiversity.

3. **Explain** how legal complications arise in matters development and flora and fauna and **relate** it to human existence with co-existence of non-human habitants of the planet.

LLB 1005 ITL- Maritime Law

At the successful completion of this course you (the student) should be able to:

1. Understand the legal framework and development of Maritime Law in India.
2. Appreciate the legal and practical principles governing Maritime Law in India and examine the laws and legal systems of India's water bodies and ports, as well as those of other nations, from a legal standpoint
3. Address a wide range of topics such as maritime insurance, national maritime law, environmental laws, piracy, rules controlling the transport of various items by sea, international sales of products, legislation drafting, and contract law.
4. Apply legal arguments to Maritime Law and apply maritime rules into reality.
5. Examine, evaluate, and apply Maritime Laws to a given scenario and the laws and legal systems relating to India's water bodies and ports from a legal standpoint.

LLB 1005 CG- Law on Project Finance

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and Critical steps of Project Finance
- (2)--Have a thorough understanding of Business Model, Competencies in Project Finance, and Estimation of cost of Project
- (3)--Have a clear understanding of Project feasibility Analysis

LLB 1005 CP-Health Law

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and principles of Right to Health under Indian Laws and international laws.
- (2)--Have a thorough understanding of Various Dimensions of Health and Right to Health and Related aspects..
- (3)--Have a clear understanding of relation of right to health under Judicial precedent.

LLB1006CRL -Offences against Child & Juvenile Offences

- i) Understand the legal, conceptual and operational parameters of the juvenile delinquency and offences against child
- ii) Understand and appreciate the issue of juvenile delinquency and offences against child in a broader social context
- iii) Appreciate the legal instruments which can be used to tackle the problem of juvenile delinquency and offences against child

LLB 1006 IPR-Patent Drafting and Specification Writing

1. Identify various laws involved in the field of patent drafting and specification writing.
2. Interpret and discuss the legal problems concerning patent drafting and specification writing.
3. Explain how legal complications arise in matters concerning patent drafting and specification writing and relate it to day-to-day human existence in the current times.

LLB 1006-ELECTION LAW

- i. Understand the issues related to election to the Offices of the Member of Parliament, State Legislative Assembly and Local Bodies.
- ii. Analyze the issues related to qualification and disqualification of candidates.
- iii. Understand the role and challenges of Election Commission.

LLB 1007-PRIVATE INTERNATIONAL LAW

- i. Understand the principle of conflict of laws and its application involving the foreign element.
- ii. Understand the Principle of recognition and enforcement of foreign Judgment.
- iii. Identify and apply the principle of conflicts of laws in relation to the Indian legal mechanism and its practice.
- iv. Analyze the issue of jurisdiction and application of foreign laws in a case where foreign element is involved.



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY LAW SCHOOL (ALS)

B.Com. LL.B. (Hons.)

12216

Duration – 5 Year Full Time

Programme Structure

Credits Summary

B.COM LL.B (Hons.)						
(05 Years/ 10 Semesters)						
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Elective (OE)	Non- Teaching Credit Courses (NTCC)	Total
I	19	-	2	-	2	23
II	18	-	2	3	2	25
III	20	-	5	3	2	30
IV	23	-	2	3	2	30
V	19	4	3	3	2	31
VI	15	8	3	3	2	31
VII	19	8	-	-	2	29
VIII	15	12	-	-	2	29
IX	16	12	-	-	2	30
X	8	12	-	-	4	24
Total	172	56	17	15	22	282

Total Credits (23+25+30+30+31+31+29+29+30+24) = 282

CC = Core Course

DE = Domain Elective

OE = Open Elective

VAC = Value Added Course

NTCC = Non -Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

1. Interpret and Analyze the legal and social problems and work towards finding solutions to the problems by application of laws and regulations. Also to Demonstrate the professional skills of pleading, argument, drafting and conveyancing, collaboration, counselling and negotiation required for legal practice.
2. Inculcate values of Rights and Duties, and transfer these values to real-life through legal and judicial process for promoting community welfare.
3. Demonstrate familiarity with the rules of professional ethics and exhibit its application in legal profession.
4. To skill in legal research, written and oral communication, teamwork, advocacy, and problem-solving.
5. Demonstrate the basic understanding of business fundamentals and be able to understand basic financial transactions, documents and law.

Program Structure

AMITY LAW SCHOOL (ALS) B.Com. LL.B. (Hons)

Semester-I

Paper Code	Course Name	Cat.	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
BCH180	Financial Accounting – I	CC	3	1	0	4
BCH103	Microeconomic Theory & Applications – I	CC	3	1	0	4
LLB101	Legal English	CC	2	1	0	3
LLB102	Legal Method & Legal System	CC	3	1	0	4
LLB103	Law of Contract-1	CC	3	1	0	4
AND001	Anandam – I	NTCC	2	0	0	2
BSS105	Behavioural Science-I	VAC	1	0	0	1
	(Understanding Self for Effectiveness)					
FLLF101	French-I	VAC	1	0	0	1
FLLG101	German-I	VAC				
FLLS101	Spanish-I	VAC				
FLLC101	Chinese-I	VAC				
Total						23

B.Com LL.B(Hons.) Semester-II

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
BCH 280	Financial Accounting-II	CC	3	1	0	4
BCH 202	Microeconomic Theory & Applications – II	CC	3	1	0	4
LLB201	General English	CC	2	1	0	3
LLB202	Law of Contract-II	CC	3	1	0	4
LLB203	Basics of Computer Applications	CC	3	1	0	2
LLB204	Fundamentals of Moot Court – I	CC	2	0	0	1
AND002	Anandam –II	NTCC	1	0	0	2
BSS 205	Behavioural Science-II (Problem Solving and Creative Thinking)	VAC	1	0	0	1
FLLF 201	French-II	VAC	1	0	0	1
FLLG 201	German-II	VAC				
FLLS 201	Spanish-II	VAC				
FLLC 201	Chinese-II	VAC				
MTLOE202	LEGAL FACET OF BUSINESS	OE	2	1	-	3
Total						25

B.Com LL.B(Hons.) Semester-III

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
BCH 362	Macro Economics Analysis-I	CC	3	1	0	4
BCH 380	Cost & Management Accounting – I	CC	3	1	0	4
LLB301	Law of Crimes-I	CC	2	1	0	3
LLB302	Law of Torts (Accidental Clams) and Consumer Protection Act	CC	3	1	0	4
LLB303	Family Law-I	CC	3	1	0	4
LLB 304	Fundamentals of Moot court – II	CC	1	0	0	1
AND003	Anandam – III	NTCC	2	0	0	2
EVS 001	Environmental Studies& Disaster Management	VAC	2	1	0	3
BSS 305	Behavioural Science-III (Interpersonal Communication and Relationship Management)	VAC	1	0	0	1
FLLF 301	French-III	VAC	1	0	0	1
FLLG 301	German-III	VAC				
FLLS 301	Spanish-III	VAC				
FLLC 301	Chinese-III	VAC				
MTLOE302	Family Law	OE	2	1	-	3
Total						30

B.Com LL.B(Hons.) Semester-IV

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
BCH 451	Macro Economics Analysis-II	CC	3	1	0	4
BCH 480	Cost & Management Accounting – II	CC	3	1	0	4
LLB401	Law of Crimes-II	CC	2	1	0	3
LLB402	Family Law-II	CC	3	1	0	4
LLB403	Constitutional Law – I	CC	3	1	0	4
LLB404	Jurisprudence	CC	3	1	0	4
AND004	Anandam – IV	NTCC	2	0	0	2
BSS 405	Behavioural Science- IV (Group Dynamics and Team Building)	VAC	1	0	0	1
FLLF 401	French-IV	VAC	1	0	0	1
FLLG 401	German-IV	VAC				
FLLS 401	Spanish-IV	VAC				
FLLC 401	Chinese-IV	VAC				
MTLOE403	Constitutional Law	OE	2	1	-	3
Total						30

B.Com LL.B(Hons.) Semester-V

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
BCH 505	<u>Fundamentals of Investment</u>	CC	3	1	0	4
BCH 592	Personal Finance Management	CC	3	1	0	4
LLB501	Code of Civil Procedure & Limitation Act- - I	CC	2	1	0	3
LLB502	Interpretation of Statutes	CC	3	1	0	4
LLB503	Constitutional Law – II	CC	3	1	0	4
AND005	Anandam – V	NTCC	2	0	0	2
BSS 505	Behavioural Science-V (Individual, Society and Nation)	VAC	1	0	0	1
BCS 501	Communication Skills – I	VAC	1	0	0	1
FLLF 501	French-V	VAC	1	0	0	1
FLLG 501	German-V	VAC				
FLLS 501	Spanish-V	VAC				
FLLC 501	Chinese-V	VAC				
	Optional Papers -I: (Select any One)					
LLB504	Local Self Government in India	DE	3	1	0	4
LLB505	Agriculture & Law					
MTLOE505	Biodiversity and Law	OE	2	1	0	3
Total						31

B.Com LL.B(Hons.) Semester–VI

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
BCH 679	Indian Economy	CC	3	1	0	4
BCH 671	Entrepreneurship Development	CC	3	1	0	4
LLB601	Code of Civil Procedure –II	CC	2	1	0	3
LLB602	Administrative Law	CC	3	1	0	4
AND006	Anandam - VI	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER I (Select any One)					
LLB 603 CP	Human Rights Law & Practice (Constitutional Law Hons Paper- I)	DE	3	1	0	4
LLB 603 CG	Law and Economics (Corporate Law Hons. Paper -I)					
LLB 603 IPR	Patent Law (IPR-Hons. Paper -I)					
LLB 603 ITL	General Principles of GATT and World trade Organization Law (International Trade law- Hon. Paper –I)					
LLB 603 CRL	Criminology (Criminal Law Hon. Paper-I)					
BSS 605	Behavioural Science-VI(Stress and Coping Strategies)	VAC	1	0	0	1
BCS 601	Communication Skills – II	VAC	1	0	0	1
FLLF 601	French-VI	VAC	1	0	0	1
FLLG 601	German-VI	VAC				
FLLS 601	Spanish-VI	VAC				
FLLC 601	Chinese-VI	VAC				
	Optional Papers -II: (Select any One)					

LLB604	Land Law including Tenure and Tenancy System	DE	3	1	0	4
LLB605	Cyber Law					
MTLOE606	Introduction to Criminal Law in India	OE	2	1	0	3
Total						31

B.Com LL.B(Hons.) Semester–VII

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
LLB 701	Labour Law I	CC	3	1	0	4
LLB 702	Law of Evidence	CC	3	1	0	4
LLB 703	Code of Criminal Procedure – I	CC	2	1	0	3
LLB 704	Company Law	CC	3	1	0	4
LLB 705	Alternate Dispute Resolution (Clinical -I)	CC	3	1	0	4
AND007	Anandam - VII	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER II (Select any One)					
LLB 706 CP	Right to Information (Constitutional Law Hons Paper-II)	DE	3	1	0	4
LLB 706 CG	Corporate Governance (Corporate Law Hons. Paper – II					
LLB 706 IPR	Copy Right (IPR-Hons. Paper -II)					
LLB 706 ITL	Private International Trade Law (International Trade law-Hon. Paper –II)					
LLB 706 CRL	Penology & Victimology(Criminal Law Hon. Paper-II)					
	Optional Papers -III:(Select any One)					
LLB 708	Socio-Economic Offences	DE	3	1	0	4
LLB 709	Sports Law					
Total						29

B.Com LL.B(Hons.) Semester–VIII

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
LLB 801	Labour Law II	CC	3	1	0	4
LLB 802	Law on Transfer of Property , Easement , Trust & Equity	CC	3	1	0	4
LLB 803	Code of Criminal Procedure –II	CC	2	1	0	3
LLB 804	Intellectual Property Rights	CC	3	1	0	4
AND008	Anandam - VIII	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER III (Select any One)					
LLB 805 CP	Law and Education(Constitutional Law Hons Paper -III)	DE	3	1	0	4
LLB 805 CG	Competition Law (Corporate Law Hons. Paper -III)					
LLB 805 IPR	Trade Mark & Designs Act (IPR Hons Paper-III)					
LLB 805 ITL	Dispute Settlement and International Trade Law and Investment Law (International Trade law- Hon. Paper –III)					
LLB 805 CRL	Forensic Science-I(Criminal Law Hon. Paper-III)					
	Domain Elective HONOURS PAPER IV (Select any One)					
LLB 806 CP	Gender Justice and Feminist Jurisprudence(Constitutional Law Hons Paper -IV)	DE	3	1	0	4
LLB 806 CG	Bankruptcy and Insolvency (Corporate Law Hons. Paper -IV)					
LLB 806 IPR	Advance IPR (IPR Hons Paper-IV)					
LLB 806 ITL	International Trade remedies (International Trade law- Hon. Paper –IV)					
LLB 806 CRL	International Criminal Law (Criminal Law Hon. Paper-IV)					
	Optional Papers -IV: (Select any One)					
LLB 808	Banking & Insurance Law	DE	3	1	0	4
LLB 809	Air & Space Law					
Total						29

B.Com LL.B(Hons.) Semester-IX

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
LLB901	Law of Taxation	CC	3	1	0	4
LLB902	Public International Law	CC	3	1	0	4
LLB903	Environmental Law	CC		1	0	4
			3			
LLB904	Mediation & Conciliation and Arbitration	CC		1	0	4
			3			
AND009	Anandam - IX	NTCC	2	0	0	2
Domain Elective HONOURS PAPER V (Select any One)						
LLB 905 CP	Federalism (Constitutional Hons. Paper-V)	DE	3	1	0	4
LLB 905 CG	Corporate Financing (Corporate Law Hons Paper-V)					
LLB 905 IPR	IPR Management (IPR Hons Paper-V)					
LLB 905 ITL	Law of International Commercial Arbitration (International Trade law- Hon. Paper – V)					
LLB 905 CRL	Forensic Science-II (Criminal Law Hon. Paper-V)					
Domain Elective HONOURS PAPER VI (Select any One)						
LLB 906 CP	Media Law (Constitution Law Hons. Paper-VI)	DE	3	1	0	4
LLB 906 CG	Corporate Taxation (Corporate Law Hons Paper-VI)					
LLB 906 IPR	IPR Litigation (IPR Hons. Paper-VI)					
LLB 906 ITL	International Investment law (ITL Hons. Paper-VI)					
LLB 906 CRL	Probation and Parole (Criminal Law Hon. Paper-VI)					
Optional Papers -V: (Select any One)						
LLB907	International Trade Law	DE	3	1	0	4
LLB908	Animal Protection Law					
Total						30

B.Com LL.B(Hons.) Semester–X

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
LLB1001	Moot court exercise and Internship(Clinical -II)	NTCC	3	1	0	4
LLB1002	Professional Ethics, Accountancy for Lawyers & Bar Bench Relations (Clinical -III)	CC	3	1	0	4
LLB1003	Drafting Pleading & Conveyance (Clinical -IV)	CC	3	1	0	4
	Domain Elective HONOURS PAPER VII (Select any One)					
LLB 1004 CP	Comparative Constitution (Constitutional Hons. Paper-VII)					
LLB 1004 CG	Law on Infrastructure Development(Corporate Law Hons Paper-V)					
LLB 1004 IPR	Bio Diversity Protection (IPR Hons Paper-VII)	DE	3	1	0	4
LLB 1004 ITL	Law of IPR in International Trade law (ITL Hons. Paper – VII)					
LLB 1004 CRL	Comparative Criminal Procedure (Criminal Law Hon. Paper-VII)					
	Domain Elective HONOURS PAPER VIII (Select any One)					
LLB 1005 CP	Health Law (Constitution Law Hons. Paper-VIII)					
LLB 1005 CG	Law on Project Finance (Corporate Law Hons Paper-VIII)					
LLB 1005 IPR	Patent Drafting and Specification Writing (IPR Hons. Paper-VIII)	DE	3	1	0	4
LLB 1005 ITL	Maritime Law (ITL Hons. Paper-VIII)					
LLB 1005 CRL	Offences Against Child & Juvenile Offences (Criminal Law Hon. Paper-VIII)					
	Optional Papers -VI: (Select any					

	One)					
LLB1006	Election Law	DE	3	1	0	4
LLB1007	Private International Law					
Total						24

COURSE OUTCOMES

AMITY LAW SCHOOL (ALS) B.Com. LLB. (Hons)

ILB 101- Introductory Microeconomics

On successful completion of this course, students will be able to:

1. The students will be able to know the various concepts of decision making (consumer & seller)
2. The students will be able to relate concepts to activities and decisions made in market.
3. The students will be able to analyze the impact of key changes on economy.

BCH 180 -Financial Accounting-I

On successful completion of this course, participants will be able to:

1. Describe Accounting and its principles, convention and standards (Including IAS);
2. Explain the nature of various Books of Primary and Subsidiary, Journal, Ledger, Trail balance; and
3. Record transactions in Final Accounts of the company and make adjustments.

FLLC-101 Chinese-I

Upon successful completion of the course, the students will be able to:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLF 101 French Language

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLL101(G) -German-I

Upon successful completion of the course, the students will be able to:

1. Identify and express in German vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in German.
4. Narrate clearly ideas, themes in simple standard German.

FLLS 101- SPANISH

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish and narrate clearly ideas
4. Narrate clearly ideas, themes in simple standard Spanish

LLB 101- Legal English

At the successful completion of this course you (the student) should be able to:

1. The Students will be well acquainted with the emergence of history of Legal English.
2. Able to understand the meaning and usage of various legal terms and maxims.
3. To learn the effective legal drafting and research reviews.
4. Incorporate the significance of Case Commentary and Literature Review.

LLB 102- LEGAL METHOD & LEGAL SYSTEM

Upon successful completion of this course students will be able to:

1. Students will be able to have a conceptual understand on the meaning of law and to distinguish between the different types of laws.
2. Students will be able to tell the different sources of law and their relationship inter se.
3. Students will be able to discuss the fundamental concepts underlying indian law, and appreciate the working of the judicial system in india.
4. Students will be able to read, analyse and understand different legal materials, and to narrate the reasoning employed by judges in their judgements

LLB 103- LAW OF CONTRACT - I

On successful completion of the course students will be able to:

1. Investigate the validity and enforceability of the contract

2. Interpret primary materials relevant to commercial law and apply the law to commercial problems to determine an arguable outcome;
3. Evaluate legal principles and employ legal techniques to analyse competing considerations and resolve practical problems in the area of commercial law;
4. Outline basic contract terms that might be used in legal practice;

BCH-202-Microeconomic Theory & Applications – II

1. Demonstrate adequate knowledge & understanding of the concepts, principles and practices in various areas of commerce.
2. Analyze financial & accounting information presented in quantitative & qualitative forms; demonstrate accurate, full and complete explanations and implications of information.
3. Draw appropriate conclusions based on data analysis, while recognizing the limits of this analysis.

BCH 280- Financial Accounting-II Course Profile

On successful completion of this course, participants will be able to:

1. Describe Accounting and its principles, convention and standards (Including IAS);
2. Explain the nature of various Books of Primary and Subsidiary, Journal, Ledger, Trail balance; and
3. Record transactions in Final Accounts of the company and make adjustments.

BSS205- PROBLEM SOLVING AND CREATIVE THINKING]

At the successful completion of this course you (the student) would be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hindrance to problem solving processes.
3. Analyze the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FLLC 201- Course Name: Foreign Language (Chinese)

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.
- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

FLLF 201 - French Language

- At the successful completion of this course the students would be able to:
- Perform communicative tasks (oral and written) like:
 - 1. Identify and express in French vocabulary and grammar norms
 - 2. Interpret different types of texts as well as cultural ideas and themes.
 - 3. Demonstrate comprehension of nuance between script and sound in French
 - 4. Narrate clearly ideas, themes in simple standard French

FLLG-201- German

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.
- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

FLLS 201-SPANISH

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.
- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

LLB 202-LAW OF CONTRACT – II

Upon successful completion of this course students will be able to:

1. Analyse and evaluate the nature and meaning of the different types of contracts i.e. the contract of indemnity, guarantee, bailment and agency, the regulation of the form of contracts, and rights, duties and obligations of parties.
2. Analysis the partnership, right, duties and obligations of partner, whether the minor be admitted for benefit in partnership, how a partnership dissolved and effect of non-registration of firm.
3. Students will able to know about the process of recovery of the possession of property, which kinds of contract can be specifically enforceable and what is declaratory suit and injunction and when the Court allows this type of remedies.
4. Recovery of property, Specific performance of contracts, Rescission of Contract, Declaratory Decree, Injunctions: Temporary and Perpetual, Mandatory

LLB 201-General English

At the successful completion of this course you (the student) should be able to:

1. The Students will be well acquainted with the emergence of history of General English.
2. Able to understand the meaning and usage of various General terms and maxims.
3. To analyse about the terms that often confuse while drafting.
4. To learn the effective General drafting and research reviews.

LLB.- 203-BASICS OF COMPUTER APPLICATION

After completing this course, students will be able to:

1. Show an awareness of what the major computer components are and how they act as system.
2. Demonstrate a knowledge and understanding of using computers to solve problems related to practical applications
3. Appreciate that computers need instructions to operate and acquire simple programming skills.
4. Demonstrate a basic understanding of computer hardware and software
- 5 Apply the skills that are the focus of this program to business scenarios

LLB 204-Fundamentals of Moot Court- I

At the successful completion of this course you (the student) should be able to:

1. To acquire knowledge of the legal, procedural and practical aspects of field.
2. Analyse legal problems and research the legal issues in a collaborative group environment.
3. Students will come to know about the Origin and sources of law.
4. What are the role of library in legal study, how we interpret the date, what are the importance of journal, magazine, books in legal field, how we do the case analysis, how the legal research be made, essay writing and manners of citation.

BCH-362-Macroeconomics Analysis-I

On successful completion of this course, students will be able to:

- 1 Demonstrate adequate knowledge & understanding of the macroeconomic concepts and theories
- 2 Define and identify macroeconomic terms and concepts.
- 3 Distinguish between economic concepts and measurements as well as creation and interpretation of graphs.
- 4 Calculate various macroeconomic indicators/ variables and analyze the relationship between these variables.
Argue various macroeconomic determinants and evaluate their impact on real life

BCH 380 - Cost & Management Accounting-I

On successful completion of this course, participants will be able to:

1. Methods for determination of cost
2. Explanation and understanding of different theories and models of the process of financial decision-making using management accounting techniques, and cost behavior.
3. Use of management control systems for achieving continuous improvement in performance.

EVS 001- ENVIRONMENTAL STUDIES & DISASTERMANAGEMENT

At the successful completion of this course you (the student) should be able to:

1. Understand the importance, need and scope of the subject.
2. Evaluate local, regional and global environmental topics related to resource use and management.
3. Measure environmental variables and interpret results.
4. Interpret the results of scientific studies of environmental problems and propose solutions to these.
5. Implement “Sustainable development”, in day to day activities.

FLLC-301- Chinese-III

At the successful completion of this course you (the student) should be able to:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLF- 301(French -III)

At the successful completion of this course the students would be able to:

- i. Perform communicative tasks (oral and written) like:
 1. Identify and express in French vocabulary and grammar norms
 2. Interpret different types of texts as well as cultural ideas and themes.
 3. Demonstrate comprehension of nuance between script and sound in French
 4. Narrate clearly ideas, themes in simple standard French

FLLG-301-German

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLS 301-Spanish

At the successful completion of this course you (the student) should be able to

- ii. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- iii. Students will be able to read and interpret small texts .
- iv. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- v. Students will be able to communicate in small sentences in oral, self introduction, family description etc

LLB 301-Law of Crimes - I

Students must gain knowledge on:

1. Concept of Crime and its penological system.
2. Penology is to understand the penal system in India with the application of theories.
3. To get acquit with the general terms and defences in statute.
4. Skills to analyze the crime and application of penal system as per the provisions.
5. Building up of the legal position and composition of procedural documents on cases in the sphere of criminal law.

LLB 302-LAW OF TORT(Accidental Clams) & CONSUMER PROTECTION ACT

At the successful completion of this course you (the student) should be able to:

1. Investigate the matter that the particular subject matter comes in the ambit of Law of Torts & Consumer Law and what are the rights & defences available in this regards.
2. Create in his mind that what are the laws are relating to State liability, vicarious liability , use of subject matter that could be applicable to the masses.
3. Student will be able to apply principles for the application of the rule of torts and negligence.
4. Develop knowledge regarding all rights. Student will come to know that consumer act is actually directing towards and types of remedies available against any violation. Every remedy under CPA & pecuniary jurisdiction & jurisdiction in general of the aggrieved party.

LLB 303-FAMILY LAW - I

2.3 On successful completion of this course, students will be able to:

1. Comprehend and explain key legal concepts underpinning India's Family Law system.
2. Critically evaluate the challenges and debates surrounding Family Law, including theethical and professional responsibilities of those practising in it.
3. Identify, analyse and critically assess disputes between parties to a marriage, or parties in a de facto relationship, involving issues of property, children and spousal maintenance.
4. Demonstrate legal problem-solving skills, which generate appropriate responses to complex statutory problems in the field of Family Law.
5. Communicate effectively, appropriately and persuasively on Family Law matters.
6. Learn and work autonomously and collaboratively, using feedback to improve capability and performance.

LLB 304-Fundamentals of Moot Court - II

1. To acquire knowledge of the legal, procedural and practical aspects of field.
2. Analyse legal problems and research the legal issues in a collaborative group environment.
3. Students will come to know about the Origin and sources of law.
4. What are the role of library in legal study, how we interpret the date, what are the importance of journal, magazine, books in legal field, how we do the case analysis, how the legal research be made, essay writing and manners of citation.

BCH 451 MACROECONOMIC ANALYSIS -II

By the end of this course, students should be able to

1. Understand and apply equilibrium in goods and financial markets and the composite IS-LMframework.
2. Understand open-economy Macroeconomics, Balance of Payments, exchange rates and generalequilibrium.
3. Understand how to apply economic principles to a range of policy questions.

BCL 480-COST AND MANAGEMENT ACCOUNTING-II]

By the end of the course, it is expected that students will be able to:

1. Explain the three primary purposes of management accounting namely, inventory valuation, decision support and cost control.
2. Critically analyze and provide recommendations to improve the operations of organizations through the application of management accounting techniques.
2. Analyze cost-volume-profit techniques to determine optimal managerial decisions.
3. Prepare analyses of various special decisions, using relevant costing and benefits.

BSS405-GROUP DYNAMICS AND TEAM BUILDING

At the successful completion of this course you (the student) would be able to:

1. Compare the difference between the groups and teams and their strength and weaknesses. Also, the internal and external factors that affect their functioning.
2. Access when there is a need of group formation and when it is needed to be transformed into team.
3. Identify the characteristics of leaders and the power practiced by them. Apply the type of leadership style power practiced in different situation

FLLC 401-Course Name: Foreign Language Chinese

At the successful completion of this course you (the student) would be able to:

- a. To produce global citizens speaking an International language in keeping with the institutional vision .
- b. To give students a platform to understand Culture and Society of a different world.
- c. To enhance the possibilities of jobs in MNCs established in/outside the country.
- d. To enhance the possibilities of Studying Abroad

FLT 401 French

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLLG – 401-German

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. To produce global citizens speaking an International language in keeping with the institutional vision .
2. To give students a platform to understand Culture and Society of a different world.
3. To enhance the possibilities of jobs in MNCs established in/outside the country.
4. To enhance the possibilities of Studying Abroad

FLS 401- SPANISH

At the successful completion of this course you should be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

LLB 403-CONSTITUTIONAL LAW – I

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Explain the meaning, nature and salient features of the Constitution of India.
2. Study the Meaning, Objects and Importance of Preamble of constitution of India.
3. Trace out the historical Aspects of the fundamental Rights guaranteed to the citizens and Non- citizens of India.
4. Examine the Importance of relationship of fundamental rights and Directive principles of state policy and their role in achieving the constitutional goals.
5. Analyze the role of State and Citizens in relation to Fundamental rights and fundamental duties respectively, guaranteed by the constitution.

ILB 404-JURISPRUDENCE

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Knowledge regarding the basic concept of law with the different views of jurist's whole over the world.
2. Understanding the different concepts of law and its application in the present Indian legal system
3. Knowledge of different types of law and its importance.

BCS 592- PERSONAL FINANCE MANAGEMENT

At the successful completion of this course the student should be able to:

- (i) Understand the basic concepts of personal finance management
- (ii) Develop an understanding of practical knowledge of Goal Planning and Tax Planning
- (iii) To examine and analyse the Investment Avenues

BSS 505-Behavioural and Allied Science

At the successful completion of this course you (the student) would be able to:

1. Identify the domains to develop as an individual society and nation level.
2. Recognize different ways to achieve personal excellence, professional power and professional success.
3. Analyse different techniques for career planning, setting goals to maintain focus, stress management for healthy living.
4. Apply different skills to achieve personal and professional success.

FLC 501 CHINESE

At the successful completion of this course you (the student) would be able to:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLT501 French

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG-511-German

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

1. Students will be able to ask and tell time.
2. Students will be able to frame sentences using Separable verb.
3. Student will be able to write and speak sentences using the modal verb.
4. Students will be able to frame sentences and speak using was/were/had.

FLS 501/511

At the successful completion of this course you should be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

ILB 501- CODE OF CIVIL PROCEDURE I & LAW OF LIMITATION

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in civil procedure law and its development, the nature of the legal controls over civil procedure, the operation, regulation.

2. Recognize the issues involved in the implementation and enforcement of Civil Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies;

ILB 502- Interpretation of Statutes

On successful completion of this course, a student will be able to:

- I. Locate, identify and be able to critically analyse relevant statutes, statutory provisions and legislative instruments, as well as pertinent judicial authority;
- II. Interpret the appropriate provisions using the accepted tools and techniques of statutory interpretation;
- III. Apply statutory provisions to fact scenarios and communicate the interpretation, nature and effect of statutory provisions to relevant stakeholders, such as clients and courts.

LLB 503-CONSTITUTIONAL LAW – II

Upon completion of the course, the student should demonstrate mastery of the following knowledge and skills:

1. To enable students to understand the Constitution of India in entirety.
2. To understand the Basic feature of Indian Constitution.
3. To know the FR, DPSP and FD
4. To know the Relation between the FR, DPSP and FD.

LLB 504-LOCAL SELF GOVERNMENT IN INDIA

Upon successful completion of this course students will be able to:

1. Analyse and evaluate the nature and meaning of the different types of Government i.e. federal Government, parliament form of government and local self Government.
2. Analysis the constitution, composition, powers, functions, duties of Gram Panchayat and their importance in democratic country.
3. Analysis the constitution, composition, powers, functions, duties of Urban Panchayat and their importance in democratic country.
4. Students will able to know about the election process of Panchayat and litigation in election matter.

LLB 505-AGRICULTURE & LAW

Upon successful completion of this course students will be able to:

1. Introduction and historical information on Agriculture Law and its importance.
2. Acquire legal skills of corporate legal handling.
3. Capable of the advanced legal application of law in emerging areas.

BCH-671-Entrepreneurship Development

Upon successful completion of this course students will be able to:

1. identify profitable venture
2. develop confidence to plan and undertake new venture
3. understand risk perspective better
4. develop strategies for new ideas and business plan

BCH 679-INDIAN ECONOMY

1. To provide understanding of core economic terms, concepts, and theories.
2. To prompt students to have economic way of thinking.
3. To demonstrate quantitative reasoning skills of collecting processing and interpreting data using statistical and mathematical methods and computer packages.
4. To induce critical thinking skills within the contest of subject matter of economics

BSS 603/604/605- Behavioural and Allied Sciences

At the successful completion of this course you (the student) would be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyse symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FLLC 601- Foreign Language Chinese

On the completion of the Fourth semester the Chinese students will be able to:

1. Use words and expressions related to greetings and farewell in their verbal and written communication.
2. Exchange detailed personal information in Chinese.
3. Give self-introduction.

FLN601/611- French

At the successful completion of this course you should be able to:

1. **Identify** and express in French vocabulary and grammar norms
2. **Interpret** different types of texts as well as cultural ideas and themes.
3. **Demonstrate comprehension** of nuance between script and sound in French
4. **Narrate clearly** ideas, themes in simple standard French

FLLG -601- German

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

1. understand and give instructions

2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS 601-SPANISH

At the successful completion of this course you should be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

ILB 602 Political Science- III

At the successful completion of this course you should be able to:

1. CLO 1- To introduce and familiarize students with the nature and scope of International Relations
2. CLO 2- To make students understand the key characteristics of International relations, especially in relation to the Indian Foreign policy
3. CLO 3- To make students learn the history of world politics , especially that of war and peace.
4. CLO 4- To develop adaptive understanding in students in regard to key concepts and ideas of International relations

LLB 603 CRL-CRIMINOLOGY

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Study the meaning, objects, and importance of criminology and criminal justice system in India
2. Understand the general principles and theories of criminology evolved at national and international level.
3. Identify the basic causes of criminal behaviour and possible solutions
4. To analyse the role of courts towards criminal justice system.

LLB 601-Civil Procedure Code

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in civil procedure law and its development, the nature of the legal controls over civil procedure, the operation, regulation.
2. Recognize the issues involved in the implementation and enforcement of Civil Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies;

LLB 602-ADMINISTRATIVE LAW

Upon successful completion of this course students will be able to:

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in administrative law and its development.
2. Recognize the issues involved in the implementation and enforcement of administrative law.
3. Analyse & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 603 CG-Law and Economics (Corporate Law Hons.)

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Identify and to Investigate the significance of Economics in the field of Law
2. Learn the process of Economic Analysis to understand the structure of law in the fields of Contracts , property law, tort law and to correlate the concept of economics with these
3. Understanding the requisites of Economic Theory of Contract law, Compensation Jurisprudence and Property Rights.
4. Learn the scope of interdisciplinary nature of Economics and relate it with Law disciplines and to provide professional skills in business-legal industry

ILB 603CP -HUMAN RIGHTS LAW AND PRACTICES

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Overview of the origin and development of human rights
2. Knowledge of the reforms and revision made by the international bodies towards the development of the vulnerable sections of the society.
3. Knowledge of collective rights recognized by the Indian Government and the judiciary
4. Knowledge of regional approach to human rights

LLB 603 ITL- General Principals of GATT and World Trade Organization

Law(International Trade law- Hon. Paper –I)

At the successful completion of this course you (the student) should be able to:

1. CLO 1 – Understand the evolution of WTO and Be familiar with the basic structure of the WTO.
2. CLO 2 – Understand the nature and scope of General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS).
3. CLO 3 – Be able to examine the institutions, procedures and principles governing the settlement of international trade dispute.
4. CLO 4 - Understand the evolution of TRIPS and Be familiar with the procedure of TRIPS.

LLB 603 IPR- Patent Law

At the successful completion of this course you (the student) should be able to:

1. Identify various laws involved in the field of patents.
2. Interpret and discuss the legal problems concerning patents.
3. Explain how legal complications arise in matters concerning patents and relate it to day-to-day human existence in the current times.

LLB 604-LAND LAWS INCLUDING TENNURE & TENANCY SYSTEM

At the successful completion of this course you (the student) should be able to:

1. Understand the historical, evolutionary, legal conceptual and operational parameters of-land acquisition procedure and rent laws.
2. Understand and appreciate the-Eviction and Dispute Settlement Mechanism
3. Appreciate the Land laws in Rajasthan in detail

LLB 605-Cyber Law

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in Cyber law and its development.
2. Recognize the issues involved in the implementation and enforcement of Cyber law.
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 701-Labour law-I

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in labour laws and its development, the nature of the legal control over industrial relations.
2. Recognize the issues involved in the implementation and enforcement of labour law.
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 702-Law of Evidence

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and principles Evidence.
- (2)--Have a thorough understanding of Various Dimensions of Evidence and Related aspects..
- (3)--Have a clear understanding of law of evidence under Judicial precedent.

LLB 703-CODE OF CRIMINAL PROCEDURE – I

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in criminal procedure law and its development, the nature of the legal controls over criminal procedure, the operation, and regulation.
2. Recognize the issues involved in the implementation and enforcement of Criminal Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 704COMPANY LAW

1. It will enhance knowledge, develop skills, and build capacities and competencies of the students in tackling issues relating to companies.
2. It will enable students to understand the complete procedure of solving internal dispute of companies.
3. The students would be in a position to analyze different provisions of Companies Act, 1956.

ILB 705- ADR (ALTERNATE DISPUTE RESOLUTION)

The student after completion of this course will be able to

1. Understand and differentiate between the Judicial Settlement and ADR Mechanism.
2. Analyse the need and importance of ADR Mechanism
3. Would be able to understand the provisions, its application in the practical field and outcome.
4. Would be able to practice the same in their practical life too.

LLB 706 ILT- PRIVATE INTERNATIONAL TRADE LAW

At the successful completion of this course the student of LL.B. (H) should be able to:

1. To understand of the scope and importance of international trade law and the nature of the legal relationship between international buyers and sellers of goods.
2. To solve complex legal problems involving international trade law and able to be critical of the current law, and be able to propose ways in which the law can be developed.
3. To have a general understanding of the main organisations (in particular the World Trade Organisation) international agreements and relationships which govern and enforce the terms of international commercial transactions
4. To Understand the nature of the legal relationship between international buyers and sellers of goods and to have engaged fully with the current issues in international trade law

ILB 706 IPR-COPY RIGHT

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Students would be able to understand the copyright, & Design Law
2. Students would be able to understand the technicalities in protection of various copyright matters.
3. Students would be able to understand the technicalities in protection of matters of designs.

LLB 706 -Animal Protection Law (Optional Paper)

At the successful completion of this course you (the student) should be able to:

1. CO 1 – Demonstrate an advanced knowledge and conceptual understanding about the Animal Welfare, Animal rights, definition, status of animal welfare in India.
2. CO 2 - Demonstrate a knowledge of the International and national framework of animal-related legislation.
3. CO 3 – Critically evaluate the law in both the protection and exploitation of animals, identifying areas in which the animal law needs reform and strategies to achieve such reform
4. CO 4 – Critically analyse the issues pertaining to the different legislations related to Animal Laws.

LLB 706 Cr.L-Penology & Victimology

At the successful completion of this course the student of LLM (Criminal Law) should be able to:

1. Study the meaning, objects, and importance of criminology and criminal justice system in India
2. Understand the general principles and theories of criminology and punishment evolved at national and international level.
3. Identify the basic causes of criminal behaviour and possible solutions
4. To analyse the role of courts towards criminal justice system.

LLP 706CP-Right to Information

At the successful completion of this course the students should be able to:

1. To Understand the significance of transparent government in a democracy
2. To Acquaint with the right to information as an integral part of freedom of speech and expression

3. To gain Practical knowledge of the ways to demand information from the government.
4. To approach the appropriate forum to seek information from the public authorities.

LLB 801-Labour Law-II

At the successful completion of this course the students should be able to:

1. Application and effect of statutory rules covering wages, compensation and working hours in work place.
2. Concept of social security and their implementation

LLB 802:- Law on Transfer of Property Easement, Trust & Equity

After the successful completion of the course the students will be able to:

1. Understand the basic concepts and principles of transfer of Property Law.
2. Have a thorough understanding of Various concepts like Doctrine of Election , Transfer by Ostensible Owner etc..
3. Have a clear understanding of relation of Property law with other laws like Registration Act 1908 and the Easement Act etc.

LLB 803- CODE OF CRIMINAL PROCEDURE – II

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in criminal procedure law and its development, the nature of the legal controls over criminal procedure, the operation, and regulation.
2. Recognize the issues involved in the implementation and enforcement of Criminal Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 804- INTELLECTUAL PROPERTY RIGHTS

Having completed the above said course, students will be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Intellectual Property Law.
2. Apply Intellectual Property Law to assist the aggrieved party in getting justice from the court of law.
3. Critically understand the efficacy of the above said law.

LLB 805 CG- Competition Law

After the successful completion of the course the students will be able to:

1. Understand the basic concepts and principles of Competition Law
2. Have a thorough understanding of Prohibition of certain agreements, Abuse of Dominant position and Regulation of Combinations, Anti-competitive agreements, Abuse of dominant position, Combination. Regulation of combinations
3. Have a clear understanding of Duties, Powers and Functions of Commission

ILB 805 CP- Law and Education

The student after completion of this course will be able to

1. Analyze the need and importance of Right to education as a fundamental right
2. historical aspect and further development of right to education
3. Understand about the barrier to achieve 100% of literacy.
4. Would be able to understand the importance of the role of Government to achieve such target.
5. What is the Constitutional status of minority regarding right to education.

LLB 805 CRL-FORENSIC SCIENCE-I

The student after completion of this course will be able to:

1. To acquaint with the meaning and system of Organizational Structure.
2. To understand the importance of Forensic Science in collecting evidence.
3. To acquaint with the method of collecting evidences from crime scene.
4. To understand the contribution of Forensic Science in making testimonial documents before Court.

LLB 805 IPR-Trade Mark & Designs Act

At the successful completion of this course you (the student) should be able to:

CO 1 - Demonstrate a comprehensive understanding of essential components of Intellectual Property Rights with special reference to trademark law and their legal character.

CO 2 -Accustom about the procedure of registration and refusal of a trademark and other remedies and also about the rights and duties of their different stakeholders.

CO 3 –An evaluation of different kinds of Intellectual Properties along with an understanding of the concept of Unfair Competition.

CO 4 –International agreements with reference to Trademarks and salient features of Geographical Indications of Goods(Registration and Protection Act) 1999.

LLB 805 ITL -Dispute Settlement and International Trade Law and Investment Law

On successful completion of this course, students will be able to:

1. To demonstrate a thorough understanding of the legal principles of international trade or investment law in general.
2. To know the dispute settlement mechanism under WTO for settlement of international trade disputes.
3. To select and apply the appropriate legal rules to provide solutions to complex legal problems of international trade law.

LLB 806 CP-GENDER JUSTICE & FEMINIST JURISPRUDENCE (CONSTITUTIONAL LAW HONS. PAPER – IV)

On successful completion of this course, students will be able to:

- i.** It will enhance knowledge, develop skills, and build capacities and competencies of the students in tackling issues related to women.
- ii.** It will enable students to learn different aspects of women's welfare legislations.
- iii.** The student would be in a position to analyze different types of statutes and functioning of various institutions working for women welfare.

LLB 806 CRL-International Criminal Law (Group Paper)

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding the key concepts of International criminal Law.
2. To increase recognition for the ICC, ICJ;
3. Analyze the differences in the jurisdiction of the International criminal court and the jurisdictions of the International criminal tribunal for former Yugoslavia and the International criminal tribunal for Rwanda.

LLB 806 IPR - Advance IPR

On completion of this program, the student should be able to:

1. Explore and explain the substantial & procedural laws in which they are made/ drafted and how students think and understand the legislative setup.
2. Interpret And Analyze the legal and social problems and work towards finding solutions to the problems by application of laws and regulations.
3. Inculcate values of Rights and Duties, and transfer these values to real-life through legal and judicial process for promoting community welfare.
4. Apply ethical principles and commit to legal professional ethics, responsibilities and norms of the established legal practices.
5. Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broader context of legal change.

ILB 806 ITL International Trade Remedies

(International Trade law- Hon. Paper –IV

At the successful completion of this course you (the student) should be able to:

1. CLO 1 - Demonstrate an advanced knowledge and conceptual understanding of the specialised area of trade law known as trade remedies law required for professional practice.
2. CLO 2 - Demonstrate an advanced and integrated knowledge of laws related to: a) Antidumping Duties; b) Countervailing Duties; and c) Safeguards measures.
3. CLO 3 – Assess the settlement of disputes by courts
4. CLO 4 - Demonstrate an advanced level of proficiency in researching WTO law relating to trade remedies

LLB 808- Banking & Insurance Law

At the successful completion of this course you (the student) should be able to:

1. Acquaint students with banking system of India.
2. Acquaint students with banking system of India.
3. Various aspects and rights that exists for them in Insurance sector.

LLB 809-Air and Space Law.

At the successful completion of this course you (the student) should be able to:

1. Demonstrate advanced and integrated knowledge of the key principles, rules and institutions relating to the air and space law.
2. Apply specialised knowledge of the key rules and legal policy issues relating to the law regimes on civil aviation, aviation insurance, liability for aviation risks and criminal activity during international air travel.
3. Demonstrate advanced knowledge of the key international treaties relating to outer space and their legal status in international law.
4. Analyse the key rules and policy issues relating to the space objects, commercial use of outer space and the use of outer space for military purposes.
5. Critically evaluate the current status and effectiveness of the key treaties, rules and institutions of international air and space law

LLB 901 -LAW OF TAXATION

Upon the successful completion of the course, the students will be able to:

- i) The students will know the development and application of different provisions of taxation laws.
- ii) The student will gain working knowledge regarding computation of tax liability under Direct and Indirect taxes and the relevant procedures.

LLB 902-Public International Law

On successful completion of this course, students will be able to:

1. Identify the nature of international law and the structure of the international legal system and explain the basic elements of public international law.
2. Apply international law in practical contexts, including the law surrounding the use of force, space law and human rights.
3. Analyse the impact of international law on diverse peoples, and critique the operation of international law from a range of ethical perspectives.

LLB 903-Environment Law

On completion of this program, the student should be able to

1. Explain the conceptual and operational parameters of various special principles/doctrines of Environmental Law.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
3. Critically understand the efficacy of the above said law in to.

LLB 904 -Mediation & Conciliation and Arbitration

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Investigate the significance of Alternative Dispute Resolution framework
2. Learn the differences and effects of Arbitration, Mediation and Conciliation
3. To impart the details of ADR and mediation Laws in various Legislations of India
4. Learn the scope and enforcement of Arbitration & Conciliation Act 1996 as an effective tool of ADR Mechanism

LLB 905 CG- Corporate Financing

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Corporate Law.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
3. Critically understand the efficacy of the above said law in the corporate finance sector.

BBL 905 CP FEDERALISM :

The students would understand a deeper concept of federal model and why was quasi federal model picked for our country specifically; primarily looking at places where has federal and unitary model been adhered to in our exhaustive Constitutional text.

- i) The student would be able to appreciate the true essence and spirit of democracy in light of constitutional principles ensured and enunciated in the textual record, read as the '*law of the land*'.
- ii) The students would be able to problematize and analyze the present day nuances and relevance of federalism in light of landmark judgments so as to appreciate the constitutional evolution.
- iii) Deep understanding of the Indian Constitutional provisions in light of the major doctrines and their evolution as absolute concepts in form of *basic structure* and *judicial activism* along with remedies ensured for the same in the text.
- iv) Analyze the importance of economic, political and social integration in tune with the Constitutional provisions and the impact of judicial pronouncements. Also to evaluate supremacy of Indian Constitution and obliteration of its ethos and the active role of Judiciary to safeguard the Constitution

LLB 905 CRL -FORENSIC SCIENCE-II

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Explain the conceptual and operational parameters of various special principles of Law of Forensics.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned
3. Critically understand the efficacy of the above said law in to.

LLB 905 IPR-IPR Management

1. Explain the conceptual and operational parameters of various special principles/doctrines of Corporate Law.
2. Apply Intellectual Property legal framework to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned
3. Critically understand the efficacy of the above said law in the corporate finance sector.

LLB 905 ITL-Law of International Commercial Arbitration

At the successful completion of this course you (the student) should be able to:

1. Understand the meaning International Commercial Arbitration.

2. Understand the jurisdiction of various international Conventions in relation to International Commercial Arbitration.
3. Analyse the importance of various institution in relation to International Commercial Arbitration and Applicable Laws
4. Study the mechanism for resolution of disputes under International Commercial Arbitration is generally conducted under an International Institution
5. Analyse the recognition and enforcement mechanism for international commercial arbitration Award and its adequacy.
6. Evaluate the Applicability of sovereign immunity Concept and various theories in relation to sovereign immunity in international Commercial Arbitration.

LLB 906 CG-Corporate Taxation (Corporate Law Hons. Paper VI)

On successful completion of this course, students will be able to:

1. To identify the difference between tax evasion and tax planning and will be able to explain different types of incomes and their taxability and expenses and their deductibility.
2. To describe how the provisions in the corporate tax laws can be applied for tax planning.
3. To outline the corporate tax laws and the use of deductions of expenses to reduce the taxable income.

LLB 906CP-Media Law

Having completed the said course, students will be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Media Law.
2. Apply Media Law to assist the aggrieved party in getting justice from the court of law, if at all, his/her grievance is not taken care of by the concerned.
3. Right to speech and expression and restriction thereon.
4. Critically understand the efficacy of the above said law in toto.

LLB 906 CRL-PROBATION AND PAROLE

On completion of this program, the student should be able to

- a. Explain the conceptual and operational parameters of various special principles of Law of Probation and Parole.
- b. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
- c. Critically understand the efficacy of the above said law in to.

LLB906- IPR-IPR Litigation Hons.

1. Skill to understand the concept of intellectual property rights.
2. Develops procedural knowledge to Legal System and solving the problem relating to intellectual property rights.
3. Employability as the Compliance Officer, Public Relation Officer and Liaison Officer.
4. Establishment of Legal Consultancy and service provider.

LLB 906 ITL-International Investment Law

At the successful completion of this course you (the student) should be able to:

1. Understand the legal framework and development of foreign investment in India.
2. Appreciate the legal and practical principles governing foreign Investment in India and examine the role and Perspectives and emergence of bilateral, regional, and multilateral Investments Treaties.
3. Study the role of foreign investment in the development of Nation and also the Responsibilities of foreign investors vis-a-vis environment, human rights and other municipal concerns of host state.
4. Analyse the Trends and issues in treaty-based remedies for foreign investors, the role of foreign arbitral institutions and Recognition and enforcement of foreign arbitral awards with specific reference to India.
5. Evaluate the role of International Centre for Settlement of Investment Disputes (ICSID), essentials conditions for the jurisdiction of ICSID and patterns of consent and meaning of foreign investment under Article 25 of the ICSID.

ILB 907-INTERNATIONAL TRADE LAW

1. Explain the conceptual and operational parameters of various special principles/doctrines of International Trade Law.
2. To inform students of the legal structures and mechanisms that underlie International Trade.
3. To examine major trends in international trade and the role of the WTO, including trade liberalisation.
4. To familiarize students with the treaty obligations of GATT, WTO, GATS and Developing Countries with special emphasis on the developments arising out of the URUGUAY ROUND culminating in the final Marrakesh Treaty International Agreements.

LLB 908 -Animal Protection Law (Optional Paper)

At the successful completion of this course you (the student) should be able to:

1. CLO 1 – Demonstrate an advanced knowledge and conceptual understanding about the Animal Welfare, Animal rights, definition, status of animal welfare in India.

2. CLO 2 - Demonstrate a knowledge of the International and national framework of animal-related legislation.
3. CLO 3 – Critically evaluate the law in both the protection and exploitation of animals, identifying areas in which the animal law needs reform and strategies to achieve such reform
4. CLO 4 – Critically analyse the issues pertaining to the different legislations related to Animal Laws.

LLB 1001-Moot court exercise and Internship

At the successful completion of this course you (the student) should be able to:

1. The students are able to understand legal issues at advance level.
2. The students are able to research upon various fields of law and deduce rational decisions out of judicial interpretations.
3. To analyze hypothesis and utilize legal research methodology for justification of legal issues.
4. Projects under the field of law are tested and carried out taking into consideration the legal viewpoints.

ILB 1003-DRAFTING, PLEADING AND CONVEYANCING (clinical) II

Upon successful completion of this course students will be able to:

1. Analyse and apply general principles of drafting and conveyancing
2. Use effective writing techniques to draft different types of legal documents
3. Draft different types of Deeds including deed of sale of land, mortgage deeds, licence deeds, lease deeds, assignment deeds, trust deeds, partnership deeds and power of attorney deeds
4. Draft different types of contracts including commercial agreements, professional services agreement, employment agreements franchise, agency, dealership and distributorship agreements, intellectual property rights agreements, arbitration agreements, foreign collaboration and joint ventures agreements and real estate and tenancy agreements

LLB 1004 CG -Law on Infrastructure Development (Corp. Hons)

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Identify and to Investigate the Constitutional Aspects of Infrastructure Development and Government's Power and appropriate Procedures for execution.
2. To provide knowledge to the students regarding Concept of Eminent Domain and laws of Land Acquisitions.

3. Imparting knowledge to the students in context of various Infrastructure Sectoral policies, reforms in Real Estate, Power Sector/Electricity/ Telecommunications/ Oil & Gas/ Water and Transport and most importantly Public Purpose of provisions.
4. Providing professional and practical skills for better execution of the Infrastructure Laws in concerned sector.

LLB 1004 CP-Comparative Constitution

- i) The students would understand a deeper comparative concept of constitution of different nations.
- ii) The student would be able to appreciate the true essence and spirit of democracy in light of constitutional principles ensured and enunciated in the textual record, read as the '*law of the land*'.
- iii) The students would be able to problematize and analyze the present day nuances and relevance of Constitution in light of landmark judgments so as to appreciate the constitutional evolution.
- iv) Deep understanding of the Constitutional provisions in light of the major doctrines and their evolution as absolute concepts in form of *basic structure* and *judicial activism & review* along with remedies ensured for the same in the text.
- v) Analyze the importance of economic, political and social integration in tune with the Constitutional provisions and the impact of judicial pronouncements. Also to evaluate supremacy of Constitution and its ethos and the active role of Judiciary to safeguard the Constitution and civil liberties.
- vi) Get a sense and nuances of various shades of Parliamentary form of Government with its merits and demerits and the implementation of rule of law besides preserving the basic structure to maintain the sanctity and originality of -Constitution.

LLB 1004 CRL-COMPARATIVE CRIMINAL PROCEDUREL LAW

Upon successful completion of this course students will be able to:

1. An appreciation that what appears "normal" or "just" in the context of one country's criminal procedural laws may appear unusual or unjust in another;
2. An understanding of cross-border and international criminal law enforcement, and some of the problems they raise; A skill at spotting areas of potential misunderstanding among criminal law practitioners from different countries.
3. An understanding of cross-border and international criminal law enforcement, and some of the problems they raise;
4. A skill at spotting areas of potential misunderstanding among criminal law practitioners from different countries.

LLB 1005- IPRBIODIVERSITY PROTECTION

. **Identify** various areas in which laws are required in the field of flora and fauna.

2. **Interpret and discuss** the legal problems concerning Biodiversity.

3. **Explain** how legal complications arise in matters development and flora and fauna and **relate** it to human existence with co-existence of non-human habitants of the planet.

LLB 1005 ITL- Maritime Law

At the successful completion of this course you (the student) should be able to:

1. Understand the legal framework and development of Maritime Law in India.
2. Appreciate the legal and practical principles governing Maritime Law in India and examine the laws and legal systems of India's water bodies and ports, as well as those of other nations, from a legal standpoint
3. Address a wide range of topics such as maritime insurance, national maritime law, environmental laws, piracy, rules controlling the transport of various items by sea, international sales of products, legislation drafting, and contract law.
4. Apply legal arguments to Maritime Law and apply maritime rules into reality.
5. Examine, evaluate, and apply Maritime Laws to a given scenario and the laws and legal systems relating to India's water bodies and ports from a legal standpoint.

LLB 1005 CG- Law on Project Finance

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and Critical steps of Project Finance
- (2)--Have a thorough understanding of Business Model, Competencies in Project Finance, and Estimation of cost of Project
- (3)--Have a clear understanding of Project feasibility Analysis

LLB 1005 CP-Health Law

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and principles of Right to Health under Indian Laws and international laws.
- (2)--Have a thorough understanding of Various Dimensions of Health and Right to Health and Related aspects..
- (3)--Have a clear understanding of relation of right to health under Judicial precedent.

LLB1006CRL -Offences against Child & Juvenile Offences

- i) Understand the legal, conceptual and operational parameters of the juvenile delinquency and offences against child
- ii) Understand and appreciate the issue of juvenile delinquency and offences against child in a broader social context
- iii) Appreciate the legal instruments which can be used to tackle the problem of juvenile delinquency and offences against child

LLB 1006 IPR-Patent Drafting and Specification Writing

1. Identify various laws involved in the field of patent drafting and specification writing.
2. Interpret and discuss the legal problems concerning patent drafting and specification writing.
3. Explain how legal complications arise in matters concerning patent drafting and specification writing and relate it to day-to-day human existence in the current times.

LLB 1006-ELECTION LAW

- i. Understand the issues related to election to the Offices of the Member of Parliament, State Legislative Assembly and Local Bodies.
- ii. Analyze the issues related to qualification and disqualification of candidates.
- iii. Understand the role and challenges of Election Commission.

LLB 1007-PRIVATE INTERNATIONAL LAW

- i. Understand the principle of conflict of laws and its application involving the foreign element.
- ii. Understand the Principle of recognition and enforcement of foreign Judgment.
- iii. Identify and apply the principle of conflicts of laws in relation to the Indian legal mechanism and its practice.
- iv. Analyze the issue of jurisdiction and application of foreign laws in a case where foreign element is involved.



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY LAW SCHOOL (ALS)

BBA LL.B. (Hons)

12215

Duration – 5 Year Full Time

Programme Structure

Credits Summary

BBA LL.B (Hons.)						
(05 Years/ 10 Semesters)						
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Elective (OE)	Non- Teaching Credit Courses (NTCC)	Total
I	19	-	2	-	2	23
II	18	-	2	3	2	25
III	20	-	5	3	2	30
IV	23	-	2	3	2	30
V	19	4	3	3	2	31
VI	15	8	3	3	2	31
VII	19	8	-	-	2	29
VIII	15	12	-	-	2	29
IX	16	12	-	-	2	30
X	8	12	-	-	4	24
Total	172	56	17	15	22	282

Total Credits (23+25+30+30+31+31+29+29+30+24) = 282

CC = Core Course

DE = Domain Elective

OE = Open Elective

VAC = Value Added Course

NTCC = Non -Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

1. Develop the ability to perform legal analysis and reasoning, legal research, problem solving, written and oral communication in the legal context and apply it in legal practice and real life situation.
2. Inculcate values of Rights and Duties, and transfer these values to real-life through legal and judicial process for promoting community welfare. Students will specialize in drafting various documents containing agreements, terms and conditions, case material, etc.
3. Apply ethical principles and commit to legal professional ethics, responsibilities, and norms of the established legal practices.
4. Develop critical and contextual approaches across a wide variety of legal subject matter.
5. Understand the interdisciplinary nature of law and relate it with management disciplines and to provide a platform of self-employability by developing professional skills in business-legal industry.

Program Structure

AMITY LAW SCHOOL (ALS) **BBA LL.B. (Hons)**

Semester-I

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
BBA101	Management Foundation	CC	3	1	0	4
BBA103	Micro Economics for Business	CC	3	1	0	4
LLB101	Legal English	CC	2	1	0	3
LLB102	Legal Method & Legal System	CC	3	1	0	4
LLB103	Law of Contract-1	CC	3	1	0	4
AND001	Anandam – I	NTCC	2	0	0	2
BSS105	Behavioural Science-I	VAC	1	0	0	1
	(Understanding Self for Effectiveness)					
FLLF101	French-I	VAC	1	0	0	1
FLLG101	German-I	VAC				
FLLS101	Spanish-I	VAC				
FLLC101	Chinese-I	VAC				
Total						23

BBA LL.B (Hons.) Semester-II

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
BBA 201	Macro Economics for Business	CC	3	1	0	4
BBA 203	Organizational Behavior	CC	3	1	0	4
LLB201	General English	CC	2	1	0	3
LLB202	Law of Contract-II	CC	3	1	0	4
LLB203	Basics of Computer Applications	CC	3	1	0	2
LLB204	Fundamentals of Moot Court – I	CC	2	0	0	1
AND002	Anandam –II	NTCC	1	0	0	2
BSS 205	Behavioural Science-II (Problem Solving and Creative Thinking)	VAC	1	0	0	1
FLLF 201	French-II	VAC	1	0	0	1
FLLG 201	German-II	VAC				
FLLS 201	Spanish-II	VAC				
FLLC 201	Chinese-II	VAC				
MTLOE202	LEGAL FACET OF BUSINESS	OE	2	1	-	3
Total						25

BBA LL.B (Hons.)Semester–III

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
BBA 302	Financial Management – I	CC	3	1	0	4
BBA 304	Marketing Management – I	CC	3	1	0	4
LLB301	Law of Crimes-I	CC	2	1	0	3
LLB302	Law of Torts (Accidental Clams) and Consumer Protection Act	CC	3	1	0	4
LLB303	Family Law-I	CC	3	1	0	4
LLB 304	Fundamentals of Moot court – II	CC	1	0	0	1
AND003	Anandam – III	NTCC	2	0	0	2
EVS 001	Environmental Studies& Disaster Management	VAC	2	1	0	3
BSS 305	Behavioural Science-III (Interpersonal Communication and Relationship Management)	VAC	1	0	0	1
FLLF 301	French-III	VAC	1	0	0	1
FLLG 301	German-III	VAC				
FLLS 301	Spanish-III	VAC				
FLLC 301	Chinese-III	VAC				
MTLOE302	Family Law	OE	2	1	-	3
Total						30

BBA LL.B (Hons.)Semester-IV

Paper Code	Course Name	Cat.	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
BBA401	Financial Management – II	CC	3	1	0	4
BBA402	Marketing Management-II	CC	3	1	0	4
LLB401	Law of Crimes-II	CC	2	1	0	3
LLB402	Family Law-II	CC	3	1	0	4
LLB403	Constitutional Law – I	CC	3	1	0	4
LLB404	Jurisprudence	CC	3	1	0	4
AND004	Anandam – IV	NTCC	2	0	0	2
BSS 405	Behavioural Science-IV	VAC	1	0	0	1
	(Group Dynamics and Team Building)					
FLLF401	French-IV	VAC	1	0	0	1
FLLG401	German-IV	VAC				
FLLS401	Spanish-IV	VAC				
FLLC401	Chinese-IV	VAC				
MTLOE403	Constitutional Law	OE	2	1	-	3
Total						30

BBA LL.B (Hons.)Semester–V

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
BBA 501	Operations Management	CC	3	1	0	4
BBA 504	Consumer Behaviour	CC	3	1	0	4
LLB501	Code of Civil Procedure &Limitation Act- - I	CC	2	1	0	3
LLB502	Interpretation of Statutes	CC	3	1	0	4
LLB503	Constitutional Law – II	CC	3	1	0	4
AND005	Anandam – V	NTCC	2	0	0	2
BSS 505	Behavioural Science-V (Individual, Society and Nation)	VAC	1	0	0	1
BCS 501	Communication Skills – I	VAC	1	0	0	1
FLLF 501	French-V	VAC	1	0	0	1
FLLG 501	German-V	VAC				
FLLS 501	Spanish-V	VAC				
FLLC 501	Chinese-V	VAC				
	Optional Papers -I: (Select any One)					
LLB504	Local Self Government in India	DE	3	1	0	4
LLB505	Agriculture & Law					
MTLOE505	Biodiversity and Law	OE	2	1	0	3
Total						31

BBA LL.B (Hons.)Semester–VI

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
BBA 601	Business Policy & Strategic Management	CC	3	1	0	4
BBA 604	International Business Management	CC	3	1	0	4
LLB601	Code of Civil Procedure –II	CC	2	1	0	3
LLB602	Administrative Law	CC	3	1	0	4
AND006	Anandam - VI	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER I (Select any One)					
LLB 603 CP	Human Rights Law & Practice (Constitutional Law Hons Paper-I)	DE	3	1	0	4
LLB 603 CG	Law and Economics (Corporate Law Hons. Paper -I)					
LLB 603 IPR	Patent Law (IPR-Hons. Paper -I)					
LLB 603 ITL	General Principles of GATT and World trade Organization Law (International Trade law- Hon. Paper –I)					
LLB 603 CRL	Criminology (Criminal Law Hon. Paper-I)					
BSS 605	Behavioural Science-VI(Stress and Coping Strategies)	VAC	1	0	0	1
BCS 601	Communication Skills – II	VAC	1	0	0	1
FLLF 601	French-VI	VAC	1	0	0	1
FLLG 601	German-VI	VAC				
FLLS 601	Spanish-VI	VAC				
FLLC 601	Chinese-VI	VAC				

	Optional Papers -II: (Select any One)					
LLB604	Land Law including Tenure and Tenancy System	DE	3	1	0	4
LLB605	Cyber Law					
MTLOE606	Introduction to Criminal Law in India	OE	2	1	0	3
Total						31

BBA LL.B (Hons.)Semester–VII

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
LLB 701	Labour Law I	CC	3	1	0	4
LLB 702	Law of Evidence	CC	3	1	0	4
LLB 703	Code of Criminal Procedure – I	CC	2	1	0	3
LLB 704	Company Law	CC	3	1	0	4
LLB 705	Alternate Dispute Resolution (Clinical -I)	CC	3	1	0	4
AND007	Anandam - VII	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER II (Select any One)					
LLB 706 CP	Right to Information (Constitutional Law Hons Paper-II)	DE	3	1	0	4
LLB 706 CG	Corporate Governance (Corporate Law Hons. Paper – II					
LLB 706 IPR	Copy Right (IPR-Hons. Paper -II)					
LLB 706 ITL	Private International Trade Law (International Trade law-Hon. Paper –II)					
LLB 706 CRL	Penology & Victimology(Criminal Law Hon. Paper-II)					
	Optional Papers -III:(Select any One)					
LLB 708	Socio-Economic Offences	DE	3	1	0	4
LLB 709	Sports Law					
Total						29

BBA LL.B (Hons.)Semester–VIII

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
LLB 801	Labour Law II	CC	3	1	0	4
LLB 802	Law on Transfer of Property , Easement , Trust & Equity	CC	3	1	0	4
LLB 803	Code of Criminal Procedure –II	CC	2	1	0	3
LLB 804	Intellectual Property Rights	CC	3	1	0	4
AND008	Anandam - VIII	NTCC	2	0	0	2
	Domain Elective HONOURS PAPER III (Select any One)					
LLB 805 CP	Law and Education(Constitutional Law Hons Paper - III)					
LLB 805 CG	Competition Law (Corporate Law Hons. Paper -III)					
LLB 805 IPR	Trade Mark & Designs Act (IPR Hons Paper-III)	DE	3	1	0	4
LLB 805 ITL	Dispute Settlement and International Trade Law and Investment Law (International Trade law- Hon. Paper –III)					
LLB 805 CRL	Forensic Science-I(Criminal Law Hon. Paper-III)					
	Domain Elective HONOURS PAPER IV (Select any One)					
LLB 806 CP	Gender Justice and Feminist Jurisprudence(Constitutional Law Hons Paper -IV)					
LLB 806 CG	Bankruptcy and Insolvency (Corporate Law Hons. Paper - IV)	DE	3	1	0	4
LLB 806 IPR	Advance IPR (IPR Hons Paper- IV)					
LLB 806 ITL	International Trade remedies (International Trade law- Hon. Paper –IV)					

LLB 806 CRL	International Criminal Law (Criminal Law Hon. Paper-IV)					
	Optional Papers -IV: (Select any One)					
LLB 808	Banking & Insurance Law	DE	3	1	0	4
LLB 809	Air & Space Law					
Total						29

BBA LL.B (Hons.)Semester-IX

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials	Practical	Total Credits
				(T) (Hours per week)	(P) (Hours per week)	
LLB901	Law of Taxation	CC	3	1	0	4
LLB902	Public International Law	CC	3	1	0	4
LLB903	Environmental Law	CC	3	1	0	4
LLB904	Mediation & Conciliation and Arbitration	CC	3	1	0	4
AND009	Anandam - IX	NTCC	2	0	0	2
Domain Elective HONOURS PAPER V (Select any One)						
LLB 905 CP	Federalism (Constitutional Hons. Paper-V)	DE	3	1	0	4
LLB 905 CG	Corporate Financing (Corporate Law Hons Paper-V)					
LLB 905 IPR	IPR Management (IPR Hons Paper-V)					
LLB 905 ITL	Law of International Commercial Arbitration (International Trade law- Hon. Paper – V)					
LLB 905 CRL	Forensic Science-II (Criminal Law Hon. Paper-V)					
Domain Elective HONOURS PAPER VI (Select any One)						
LLB 906 CP	Media Law (Constitution Law Hons. Paper-VI)	DE	3	1	0	4
LLB 906 CG	Corporate Taxation (Corporate Law Hons Paper-VI)					
LLB 906 IPR	IPR Litigation (IPR Hons. Paper-VI)					
LLB 906 ITL	International Investment law (ITL Hons. Paper-VI)					
LLB 906 CRL	Probation and Parole (Criminal Law Hon. Paper-VI)					
Optional Papers -V: (Select any One)						
LLB907	International Trade Law	DE	3	1	0	4
LLB908	Animal Protection Law					
Total						30

BBA LL.B (Hons.)Semester–X

Paper Code	Course Name	CC	Lectures (L) (Hours per week)	Tutorials (T) (Hours per week)	Practical (P) (Hours per week)	Total Credits
LLB1001	Moot court exercise and Internship(Clinical -II)	NTCC	3	1	0	4
LLB1002	Professional Ethics, Accountancy for Lawyers & Bar Bench Relations (Clinical -III)	CC	3	1	0	4
LLB1003	Drafting Pleading & Conveyance (Clinical -IV)	CC	3	1	0	4
	Domain Elective HONOURS PAPER VII (Select any One)					
LLB 1004 CP	Comparative Constitution (Constitutional Hons. Paper-VII)					
LLB 1004 CG	Law on Infrastructure Development(Corporate Law Hons Paper-V)					
LLB 1004 IPR	Bio Diversity Protection (IPR Hons Paper-VII)	DE	3	1	0	4
LLB 1004 ITL	Law of IPR in International Trade law (ITL Hons. Paper – VII)					
LLB 1004 CRL	Comparative Criminal Procedure (Criminal Law Hon. Paper-VII)					
	Domain Elective HONOURS PAPER VIII (Select any One)					
LLB 1005 CP	Health Law (Constitution Law Hons. Paper-VIII)					
LLB 1005 CG	Law on Project Finance (Corporate Law Hons Paper-VIII)					
LLB 1005 IPR	Patent Drafting and Specification Writing (IPR Hons. Paper-VIII)	DE	3	1	0	4
LLB 1005 ITL	Maritime Law (ITL Hons. Paper-VIII)					
LLB 1005 CRL	Offences Against Child & Juvenile Offences (Criminal Law Hon. Paper-VIII)					
	Optional Papers -VI: (Select any					

	One)					
LLB1006	Election Law	DE	3	1	0	4
LLB1007	Private International Law					
Total						24

COURSE OUTCOMES

AMITY LAW SCHOOL (ALS) BBA LLB. (Hons)

BBA 101 Managements Foundation

On successful completion of this course, participants will be able to:

1. To know the Theories of Management.
2. To know the current trends based on Customer Management.
3. Compare and Contrast different perspectives that characterize the study of management.
4. To Understand the challenges that influence the formulation of effective managerial strategies.

BBA-103-Microeconomic for Business

On successful completion of this course, students will be able to:

1. The students will be able to know the various concepts of decision making (consumer & seller)
2. The students will be able to relate concepts to activities and decisions made in market.
3. Analyze the output and cost behaviour in short and long run.
4. Identify nature and intensity of competition in different types of market.

FLLC-101 Chinese-I

Upon successful completion of the course, the students will be able to:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLF 101 French Language

Upon successful completion of the course, the students will be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLL101(G) -German-I

Upon successful completion of the course, the students will be able to:

1. Identify and express in German vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in German.
4. Narrate clearly ideas, themes in simple standard German.

FLLS 101- SPANISH

Upon successful completion of the course, the students will be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish and narrate clearly ideas
4. Narrate clearly ideas, themes in simple standard Spanish

LLB 101- Legal English

At the successful completion of this course you (the student) should be able to:

1. The Students will be well acquainted with the emergence of history of Legal English.
2. Able to understand the meaning and usage of various legal terms and maxims.
3. To learn the effective legal drafting and research reviews.
4. Incorporate the significance of Case Commentary and Literature Review.

LLB 102- LEGAL METHOD & LEGAL SYSTEM

Upon successful completion of this course students will be able to:

1. Students will be able to have a conceptual understand on the meaning of law and to distinguish between the different types of laws.
2. Students will be able to tell the different sources of law and their relationship inter se.
3. Students will be able to discuss the fundamental concepts underlying indian law, and appreciate the working of the judicial system in india.
4. Students will be able to read, analyse and understand different legal materials, and to narrate the reasoning employed by judges in their judgements

LLB 103- LAW OF CONTRACT – I

On successful completion of the course students will be able to:

1. Investigate the validity and enforceability of the contract

2. Interpret primary materials relevant to commercial law and apply the law to commercial problems to determine an arguable outcome;
3. Evaluate legal principles and employ legal techniques to analyse competing considerations and resolve practical problems in the area of commercial law;
4. Outline basic contract terms that might be used in legal practice;

BBA 201-Macroeconomics for Business

On successful completion of this course, students will be able to:

1. Explain the concepts of gross domestic product, inflation, and unemployment, and how they are measured.
2. Explain the circular flow model and use the concepts of aggregate demand and aggregate supply to analyze the response of the economy to disturbances.
3. Describe the determinants of the demand for money, the supply of money and interest rates and the role of financial institutions in the economy.
4. Define fiscal and monetary policies and how these affect the economy.
5. Identify the causes of disequilibrium in balance of payment (BoP) and how to correct it.

BBL-203- Organisational Behaviour

At the successful completion of this course you (the student) should be able to:

1. Develop an understanding of key Organizational Behaviour concepts and how they apply to the world of work.
2. Understand and Analyse individual (self and others) and group behaviour including their respective defining elements.
3. Understand the concepts of power and motivation, and apply them to earn the commitment of others.
4. Improve team skills and gain an appreciation of team dynamics
5. Analyse and interpret the impact of organizational culture on organizations.
6. Understand key factors in implementing change.

BSS205- PROBLEM SOLVING AND CREATIVE THINKING]

At the successful completion of this course you (the student) would be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hindrance to problem solving processes.
3. Analyze the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FLLC 201- Course Name: Foreign Language (Chinese)

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.

- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

FLLF 201 - French Language

- At the successful completion of this course the students would be able to:
- Perform communicative tasks (oral and written) like:
 1. Identify and express in French vocabulary and grammar norms
 2. Interpret different types of texts as well as cultural ideas and themes.
 3. Demonstrate comprehension of nuance between script and sound in French
 4. Narrate clearly ideas, themes in simple standard French

FLLG-201- German

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.
- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

FLLS 201-SPANISH

- To produce global citizens speaking an International language in keeping with the institutional vision .
- To give students a platform to understand Culture and Society of a different world.
- To enhance the possibilities of jobs in MNCs established in/outside the country.
- To enhance the possibilities of Studying Abroad

LLB 202-LAW OF CONTRACT – II

Upon successful completion of this course students will be able to:

1. Analyse and evaluate the nature and meaning of the different types of contracts i.e. the contract of indemnity, guarantee, bailment and agency, the regulation of the form of contracts, and rights, duties and obligations of parties.
2. Analysis the partnership, right, duties and obligations of partner, whether the minor be admitted for benefit in partnership, how a partnership dissolved and effect of non-registration of firm.
3. Students will able to know about the process of recovery of the possession of property, which kinds of contract can be specifically enforceable and what is declaratory suit and injunction and when the Court allows this type of remedies.
4. Recovery of property, Specific performance of contracts, Rescission of Contract, Declaratory Decree, Injunctions: Temporary and Perpetual, Mandatory

LLB 201-General English

At the successful completion of this course you (the student) should be able to:

1. The Students will be well acquainted with the emergence of history of General English.

2. Able to understand the meaning and usage of various General terms and maxims.
3. To analyse about the terms that often confuse while drafting.
4. To learn the effective General drafting and research reviews.

LLB.- 203-BASICS OF COMPUTER APPLICATION

After completing this course, students will be able to:

1. Show an awareness of what the major computer components are and how they act as system.
2. Demonstrate a knowledge and understanding of using computers to solve problems related to practical applications
3. Appreciate that computers need instructions to operate and acquire simple programming skills.
4. Demonstrate a basic understanding of computer hardware and software
- 5 Apply the skills that are the focus of this program to business scenarios

LLB 204-Fundamentals of Moot Court- I

At the successful completion of this course you (the student) should be able to:

1. To acquire knowledge of the legal, procedural and practical aspects of field.
2. Analyse legal problems and research the legal issues in a collaborative group environment.
3. Students will come to know about the Origin and sources of law.
4. What are the role of library in legal study, how we interpret the date, what are the importance of journal, magazine, books in legal field, how we do the case analysis, how the legal research be made, essay writing and manners of citation.

BBA 302- MARKETING MANAGAMENT

At the successful completion of this course you (the student) should be able to:

1. Define marketing and describe how marketing creates value.
2. Describe the elements of the marketing mix.
3. Explain how these elements interact to create value for consumers.
4. Use different analytical frameworks to examine how managers solve business problems.

BBL 304- Marketing management

1. The students will be able to compare and contrast different perspectives that characterize the study of difference between consumer and industrial marketing
2. Apply theories of strategic fit to the formulation of effective

EVS 001- ENVIRONMENTAL STUDIES & DISASTERMANAGEMENT

At the successful completion of this course you (the student) should be able to:

1. Understand the importance, need and scope of the subject.

2. Evaluate local, regional and global environmental topics related to resource use and management.
3. Measure environmental variables and interpret results.
4. Interpret the results of scientific studies of environmental problems and propose solutions to these.
5. Implement “Sustainable development”, in day to day activities.

FLLC-301- Chinese-III

At the successful completion of this course you (the student) should be able to:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLF- 301(French -III)

At the successful completion of this course the students would be able to:

- i. Perform communicative tasks (oral and written) like:
 1. Identify and express in French vocabulary and grammar norms
 2. Interpret different types of texts as well as cultural ideas and themes.
 3. Demonstrate comprehension of nuance between script and sound in French
 4. Narrate clearly ideas, themes in simple standard French

FLLG-301-German

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLLS 301-Spanish

At the successful completion of this course you (the student) should be able to

- ii. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- iii. Students will be able to read and interpret small texts .
- iv. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- v. Students will be able to communicate in small sentences in oral, self introduction, family description etc

LLB 301-Law of Crimes – I

Students must gain knowledge on:

1. Concept of Crime and its penological system.
2. Penology is to understand the penal system in India with the application of theories.
3. To get acquainted with the general terms and defences in statute.
4. Skills to analyze the crime and application of penal system as per the provisions.
5. Building up of the legal position and composition of procedural documents on cases in the sphere of criminal law.

LLB 302-LAW OF TORT(Accidental Claims) & CONSUMER PROTECTION ACT

At the successful completion of this course you (the student) should be able to:

1. Investigate the matter that the particular subject matter comes in the ambit of Law of Torts & Consumer Law and what are the rights & defences available in this regard.
2. Create in his mind that what are the laws relating to State liability, vicarious liability, use of subject matter that could be applicable to the masses.
3. Student will be able to apply principles for the application of the rule of torts and negligence.
4. Develop knowledge regarding all rights. Student will come to know that consumer act is actually directing towards and types of remedies available against any violation. Every remedy under CPA & pecuniary jurisdiction & jurisdiction in general of the aggrieved party.

LLB 303-FAMILY LAW - I]

On successful completion of this course, students will be able to:

1. Comprehend and explain key legal concepts underpinning India's Family Law system.
2. Critically evaluate the challenges and debates surrounding Family Law, including the ethical and professional responsibilities of those practising in it.
3. Identify, analyse and critically assess disputes between parties to a marriage, or parties in a de facto relationship, involving issues of property, children and spousal maintenance.
4. Demonstrate legal problem-solving skills, which generate appropriate responses to complex statutory problems in the field of Family Law.
5. Communicate effectively, appropriately and persuasively on Family Law matters.
6. Learn and work autonomously and collaboratively, using feedback to improve capability and performance.

LLB 304-Fundamentals of Moot Court - II

1. To acquire knowledge of the legal, procedural and practical aspects of field.
2. Analyse legal problems and research the legal issues in a collaborative group environment.
3. Students will come to know about the Origin and sources of law.

4. What are the role of library in legal study, how we interpret the date, what are the importance of journal, magazine, books in legal field, how we do the case analysis, how the legal research be made, essay writing and manners of citation.

BBA 401-FINANCIAL MANAGEMENT-II

On successful completion of this course, participants will be able to:

1. Comprehend both the theoretical and practical role of financial management in business corporations.
2. Recognise the importance of risk in context of financial decision making.
3. Identify of essential components of modern finance theory and its application in making financial decisions

BBA 402- MARKETING MANAGEMENT- II]

At the successful completion of this course you (the student) should be able to:

1. Develop understanding of core concepts of marketing and the role of marketing in business and society.
2. Critically analyse and apply marketing strategies based on product, price, place and promotion objectives, under ethical consideration of different market situations.
3. Develop an integrated marketing communications plan, which includes promotional strategies, unique marketing mixes and selling propositions for specific product offerings.
4. Develop understanding of Global Market place.

BSS405-GROUP DYNAMICS AND TEAM BUILDING

At the successful completion of this course you (the student) would be able to:

1. Compare the difference between the groups and teams and their strength and weaknesses. Also, the internal and external factors that affect their functioning.
2. Access when there is a need of group formation and when it is needed to be transformed into team.
3. Identify the characteristics of leaders and the power practiced by them. Apply the type of leadership style power practiced in different situation

FLLC 401-Course Name: Foreign Language Chinese

At the successful completion of this course you (the student) would be able to:

- a. To produce global citizens speaking an International language in keeping with the institutional vision .
- b. To give students a platform to understand Culture and Society of a different world.
- c. To enhance the possibilities of jobs in MNCs established in/outside the country.
- d. To enhance the possibilities of Studying Abroad

FLT 401 French

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French

4. Narrate clearly ideas, themes in simple standard French

FLLG – 401-German

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. To produce global citizens speaking an International language in keeping with the institutional vision .
2. To give students a platform to understand Culture and Society of a different world.
3. To enhance the possibilities of jobs in MNCs established in/outside the country.
4. To enhance the possibilities of Studying Abroad

FLS 401- SPANISH

At the successful completion of this course you should be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

LLB 403-CONSTITUTIONAL LAW – I

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Explain the meaning, nature and salient features of the Constitution of India.
2. Study the Meaning, Objects and Importance of Preamble of constitution of India.
3. Trace out the historical Aspects of the fundamental Rights guaranteed to the citizens and Non- citizens of India.
4. Examine the Importance of relationship of fundamental rights and Directive principles of state policy and their role in achieving the constitutional goals.
5. Analyze the role of State and Citizens in relation to Fundamental rights and fundamental duties respectively, guaranteed by the constitution.

ILB 404-JURISPRUDENCE

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Knowledge regarding the basic concept of law with the different views of jurist's whole over the world.
2. Understanding the different concepts of law and its application in the present Indian legal system
3. Knowledge of different types of law and its importance.

BBA 501- Operations Management

Student will be able to:

1. Understand the basic of Production and Operations.
2. Describe and interpret the difference between Production and Operations management.
3. Understand and analyse Demand Forecasting & Capacity Planning, TQM, Inventory management, BPR and ERP.

BBA 504- Consumer Behavior

1. Compare and contrast different perspectives that characterize the study of consumer behavior
2. Apply theories of consumer behavior to the formulation of effective marketing strategy.
3. Recognize trends based on current research related to consumer behavior.
4. *Analyze* the challenges that might influence the formulation of effective marketing strategies from a consumer behavior perspective

BSS 505-Behavioural and Allied Science

At the successful completion of this course you (the student) would be able to:

1. Identify the domains to develop as an individual society and nation level.
2. Recognize different ways to achieve personal excellence, professional power and professional success.
3. Analyse different techniques for career planning, setting goals to maintain focus, stress management for healthy living.
4. Apply different skills to achieve personal and professional success.

FLC 501 CHINESE

At the successful completion of this course you (the student) would be able to:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLT501 French

At the successful completion of this course the students would be able to:

Perform communicative tasks (oral and written) like:

1. Identify and express in French vocabulary and grammar norms

2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLG-511-German

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

1. Students will be able to ask and tell time.
2. Students will be able to frame sentences using Separable verb.
3. Student will be able to write and speak sentences using the modal verb.
4. Students will be able to frame sentences and speak using was/were/had.

FLS 501/511

At the successful completion of this course you should be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

ILB 501- CODE OF CIVIL PROCEDURE I & LAW OF LIMITATION

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in civil procedure law and its development, the nature of the legal controls over civil procedure, the operation, regulation.
2. Recognize the issues involved in the implementation and enforcement of Civil Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies;

ILB 502- Interpretation of Statutes

On successful completion of this course, a student will be able to:

- I. Locate, identify and be able to critically analyse relevant statutes, statutory provisions and legislative instruments, as well as pertinent judicial authority;
- II. Interpret the appropriate provisions using the accepted tools and techniques of statutory interpretation;
- III. Apply statutory provisions to fact scenarios and communicate the interpretation, nature and effect of statutory provisions to relevant stakeholders, such as clients and courts.

LLB 503-CONSTITUTIONAL LAW – II

Upon completion of the course, the student should demonstrate mastery of the following knowledge and skills:

1. To enable students to understand the Constitution of India in entirety.
2. To understand the Basic feature of Indian Constitution.
3. To know the FR, DPSP and FD
4. To know the Relation between the FR, DPSP and FD.

LLB 504-LOCAL SELF GOVERNMENT IN INDIA

Upon successful completion of this course students will be able to:

1. Analyse and evaluate the nature and meaning of the different types of Government i.e. federal Government, parliament form of government and local self Government.
2. Analysis the constitution, composition, powers, functions, duties of Gram Panchayat and their importance in democratic country.
3. Analysis the constitution, composition, powers, functions, duties of Urban Panchayat and their importance in democratic country.
4. Students will able to know about the election process of Panchayat and litigation in election matter.

LLB 505-AGRICULTURE & LAW

Upon successful completion of this course students will be able to:

1. Introduction and historical information on Agriculture Law and its importance.
2. Acquire legal skills of corporate legal handling.
3. Capable of the advanced legal application of law in emerging areas.

BBA 601-Business Policy and Strategic Management

At the successful completion of this course you (the student) should be able to:

1. Develop an understanding of Business and Corporate Strategies
2. To know various theories and models pertaining to strategic management
3. To be able to appraise the situation and being able to suggest appropriate strategy for various business situations.
4. To know the recent development in strategic management arena

BBL604- INTERNATIONAL BUSINESS MANAGEMENT

At the end of this course students should be able to:

1. Develop a clear understanding of the conceptual frameworks and definitions of specific terms that are integral to the international management literature.
2. Attain a clear understanding of the various factors that help determine the appropriateness of different management strategies for different types of international ventures.
3. Analysis of various strategies required for entering different markets globally.
4. Explore and evaluate different career opportunities, specific regional locations, and organizations where the students may seek to pursue an international business management career

BSS 603/604/605- Behavioural and Allied Sciences

At the successful completion of this course you (the student) would be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyse symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FLLC 601- Foreign Language Chinese

On the completion of the Fourth semester the Chinese students will be able to:

1. Use words and expressions related to greetings and farewell in their verbal and written communication.
2. Exchange detailed personal information in Chinese.
3. Give self-introduction.

FLN601/611- French

At the successful completion of this course you should be able to:

1. Identify and express in French vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in French
4. Narrate clearly ideas, themes in simple standard French

FLLG -601- German

After successful completion of the course, the students will be able to perform orally and in writing certain social functions:

1. understand and give instructions
2. understand and reply to a letter
3. speak about learning languages
4. find a particular information in a text
5. understand a conversation

FLS 601-SPANISH

At the successful completion of this course you should be able to:

1. Identify and express in Spanish vocabulary and grammar norms
2. Interpret different types of texts as well as cultural ideas and themes.
3. Demonstrate comprehension of nuance between script and sound in Spanish
4. Narrate clearly ideas, themes in simple standard Spanish

ILB 602 Political Science- III

At the successful completion of this course you should be able to:

1. CO 1- To introduce and familiarize students with the nature and scope of International Relations
2. CO 2- To make students understand the key characteristics of International relations, especially in relation to the Indian Foreign policy
3. CO 3- To make students learn the history of world politics , especially that of war and peace.
4. CO 4- To develop adaptive understanding in students in regard to key concepts and ideas of International relations

LLB 603 CRL-CRIMINOLOGY

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Study the meaning, objects, and importance of criminology and criminal justice system in India
2. Understand the general principles and theories of criminology evolved at national and international level.
3. Identify the basic causes of criminal behaviour and possible solutions
4. To analyse the role of courts towards criminal justice system.

LLB 601-Civil Procedure Code

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in civil procedure law and its development, the nature of the legal controls over civil procedure, the operation, regulation.
2. Recognize the issues involved in the implementation and enforcement of Civil Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies;

LLB 602-ADMINISTRATIVE LAW

Upon successful completion of this course students will be able to:

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in administrative law and its development.
2. Recognize the issues involved in the implementation and enforcement of administrative law.
3. Analyse & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 603 CG-Law and Economics (Corporate Law Hons.)

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Identify and to Investigate the significance of Economics in the field of Law
2. Learn the process of Economic Analysis to understand the structure of law in the fields of Contracts , property law, tort law and to correlate the concept of economics with these
3. Understanding the requisites of Economic Theory of Contract law, Compensation Jurisprudence and Property Rights.
4. Learn the scope of interdisciplinary nature of Economics and relate it with Law disciplines and to provide professional skills in business-legal industry

ILB 603CP -HUMAN RIGHTS LAW AND PRACTICES

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Overview of the origin and development of human rights
2. Knowledge of the reforms and revision made by the international bodies towards the development of the vulnerable sections of the society.
3. Knowledge of collective rights recognized by the Indian Government and the judiciary
4. Knowledge of regional approach to human rights

LLB 603 ITL- General Principals of GATT and World Trade Organization Law(International Trade law- Hon. Paper –I)

At the successful completion of this course you (the student) should be able to:

1. CO 1 – Understand the evolution of WTO and Be familiar with the basic structure of the WTO.
2. CO 2 – Understand the nature and scope of General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS).
3. CO 3 – Be able to examine the institutions, procedures and principles governing the settlement of international trade dispute.
4. CO 4 - Understand the evolution of TRIPS and Be familiar with the procedure of TRIPS.

LLB 603 IPR- Patent Law

At the successful completion of this course you (the student) should be able to:

1. **Identify** various laws involved in the field of patents.
2. **Interpret and discuss** the legal problems concerning patents.
3. **Explain** how legal complications arise in matters concerning patents and **relate** it to day-to-day human existence in the current times.

LLB 604-LAND LAWS INCLUDING TENNURE & TENANCY SYSTEM

At the successful completion of this course you (the student) should be able to:

1. Understand the historical, evolutionary, legal conceptual and operational parameters of-land acquisition procedure and rent laws.

2. Understand and appreciate the-Eviction and Dispute Settlement Mechanism
3. Appreciate the Land laws in Rajasthan in detail

LLB 605-Cyber Law

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in Cyber law and its development.
2. Recognize the issues involved in the implementation and enforcement of Cyber law.
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 701-Labour law-I

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in labour laws and its development, the nature of the legal control over industrial relations.
2. Recognize the issues involved in the implementation and enforcement of labour law.
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 702-Law of Evidence

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and principles Evidence.
- (2)--Have a thorough understanding of Various Dimensions of Evidence and Related aspects..
- (3)--Have a clear understanding of law of evidence under Judicial precedent.

LLB 703-CODE OF CRIMINAL PROCEDURE – I

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in criminal procedure law and its development, the nature of the legal controls over criminal procedure, the operation, and regulation.
2. Recognize the issues involved in the implementation and enforcement of Criminal Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 704 COMPANY LAW

1. It will enhance knowledge, develop skills, and build capacities and competencies of the students in tackling issues relating to companies.
2. It will enable students to understand the complete procedure of solving internal dispute of companies.
3. The students would be in a position to analyze different provisions of Companies Act, 1956.
- 4.

ILB 705- ADR (ALTERNATE DISPUTE RESOLUTION)

The student after completion of this course will be able to

1. Understand and differentiate between the Judicial Settlement and ADR Mechanism.
2. Analyse the need and importance of ADR Mechanism
3. Would be able to understand the provisions, its application in the practical field and outcome.
4. Would be able to practice the same in their practical life too.

LLB 706 ILT- PRIVATE INTERNATIONAL TRADE LAW

At the successful completion of this course the student of LL.B. (H) should be able to:

1. To understand of the scope and importance of international trade law and the nature of the legal relationship between international buyers and sellers of goods.
2. To solve complex legal problems involving international trade law and able to be critical of the current law, and be able to propose ways in which the law can be developed.
3. To have a general understanding of the main organisations (in particular the World Trade Organisation) international agreements and relationships which govern and enforce the terms of international commercial transactions
4. To Understand the nature of the legal relationship between international buyers and sellers of goods and to have engaged fully with the current issues in international trade law

ILB 706 IPR-COPY RIGHT

At the successful completion of this course the student of LL.B. (H) should be able to:

1. Students would be able to understand the copyright, & Design Law
2. Students would be able to understand the technicalities in protection of various copyright matters.
3. Students would be able to understand the technicalities in protection of matters of designs.

LLB 706 -Animal Protection Law (Optional Paper)

At the successful completion of this course you (the student) should be able to:

1. CO 1 – Demonstrate an advanced knowledge and conceptual understanding about the Animal Welfare, Animal rights, definition, status of animal welfare in India.
2. CO 2 - Demonstrate a knowledge of the International and national framework of animal-related legislation.
3. CO 3 – Critically evaluate the law in both the protection and exploitation of animals, identifying areas in which the animal law needs reform and strategies to achieve such reform
4. CO 4 – Critically analyse the issues pertaining to the different legislations related to Animal Laws.

LLB 706 Cr.L-Penology & Victimology

At the successful completion of this course the student of LLM (Criminal Law) should be able to:

1. Study the meaning, objects, and importance of criminology and criminal justice system in India
2. Understand the general principles and theories of criminology and punishment evolved at national and international level.
3. Identify the basic causes of criminal behaviour and possible solutions
4. To analyse the role of courts towards criminal justice system.

LLP 706CP-Right to Information

At the successful completion of this course the students should be able to:

1. To Understand the significance of transparent government in a democracy
2. To Acquaints with the right to information as an integral part of freedom of speech and expression
3. To gain Practical knowledge of the ways to demand information from the government.
4. To approach the appropriate forum to seek information from the public authorities.

LLB 801-Labour Law-II

At the successful completion of this course the students should be able to:

1. Application and effect of statutory rules covering wages, compensation and working hours in work place.

2. Concept of social security and their implementation

LLB 802:- Law on Transfer of Property Easement, Trust & Equity

After the successful completion of the course the students will be able to:

1. Understand the basic concepts and principles of transfer of Property Law.
2. Have a thorough understanding of Various concepts like Doctrine of Election , Transfer by Ostensible Owner etc..
3. Have a clear understanding of relation of Property law with other laws like Registration Act 1908 and the Easement Act etc.

LLB 803- CODE OF CRIMINAL PROCEDURE – II

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding of key concepts in criminal procedure law and its development, the nature of the legal controls over criminal procedure, the operation, and regulation.
2. Recognize the issues involved in the implementation and enforcement of Criminal Procedure law;
3. Analyze & apply such knowledge to identify and critically evaluate appropriate regulatory and enforcement strategies.

LLB 804- INTELLECTUAL PROPERTY RIGHTS

Having completed the above said course, students will be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Intellectual Property Law.
2. Apply Intellectual Property Law to assist the aggrieved party in getting justice from the court of law.
3. Critically understand the efficacy of the above said law.

LLB 805 CG- Competition Law

After the successful completion of the course the students will be able to:

1. Understand the basic concepts and principles of Competition Law
2. Have a thorough understanding of Prohibition of certain agreements, Abuse of Dominant position and Regulation of Combinations, Anti-competitive agreements, Abuse of dominant position, Combination. Regulation of combinations
3. Have a clear understanding of Duties, Powers and Functions of Commission

ILB 805 CP- Law and Education

The student after completion of this course will be able to

1. Analyze the need and importance of Right to education as a fundamental right
2. historical aspect and further development of right to education
3. Understand about the barrier to achieve 100% of literacy.
4. Would be able to understand the importance of the role of Government to achieve such target.
5. What is the Constitutional status of minority regarding right to education.

LLB 805 CRL-FORENSIC SCIENCE-I

The student after completion of this course will be able to:

1. To acquaint with the meaning and system of Organizational Structure.
2. To understand the importance of Forensic Science in collecting evidence.
3. To acquaint with the method of collecting evidences from crime scene.
4. To understand the contribution of Forensic Science in making testimonial documents before Court.

LLB 805 IPR-Trade Mark & Designs Act

At the successful completion of this course you (the student) should be able to:

CO 1 - Demonstrate a comprehensive understanding of essential components of Intellectual Property Rights with special reference to trademark law and their legal character.

CO 2 -Accustom about the procedure of registration and refusal of a trademark and other remedies and also about the rights and duties of their different stakeholders.

CO 3 –An evaluation of different kinds of Intellectual Properties along with an understanding of the concept of Unfair Competition.

CO 4 –International agreements with reference to Trademarks and salient features of Geographical Indications of Goods(Registration and Protection Act) 1999.

LLB 805 ITL -Dispute Settlement and International Trade Law and Investment Law

On successful completion of this course, students will be able to:

1. To demonstrate a thorough understanding of the legal principles of international trade or investment law in general.
2. To know the dispute settlement mechanism under WTO for settlement of international trade disputes.

3. To select and apply the appropriate legal rules to provide solutions to complex legal problems of international trade law.

LLB 806 CP-GENDER JUSTICE & FEMINIST JURISPRUDENCE

(CONSTITUTIONAL LAW HONS. PAPER – IV)

On successful completion of this course, students will be able to:

- i. It will enhance knowledge, develop skills, and build capacities and competencies of the students in tackling issues related to women.
- ii. It will enable students to learn different aspects of women's welfare legislations.
- iii. The student would be in a position to analyze different types of statutes and functioning of various institutions working for women welfare.

LLB 806 CRL-International Criminal Law (Group Paper)

After the completion of the course the students would be able to

1. Demonstrate comprehensive, current and integrated knowledge and understanding the key concepts of International criminal Law.
2. To increase recognition for the ICC,ICJ;
3. Analyze the differences in the jurisdiction of the International criminal court and the jurisdictions of the International criminal tribunal for former Yugoslavia and the International criminal tribunal for Rwanda.

LLB 806 IPR - Advance IPR

On completion of this program, the student should be able to:

1. Explore and explain the substantial & procedural laws in which they are made/ drafted and how students think and understand the legislative setup.
2. Interpret And Analyze the legal and social problems and work towards finding solutions to the problems by application of laws and regulations.
3. Inculcate values of Rights and Duties, and transfer these values to real-life through legal and judicial process for promoting community welfare.
4. Apply ethical principles and commit to legal professional ethics, responsibilities and norms of the established legal practices.
5. Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broader context of legal change.

ILB 806 ITL International Trade Remedies

(International Trade law- Hon. Paper –IV)

At the successful completion of this course you (the student) should be able to:

1. CO 1 - Demonstrate an advanced knowledge and conceptual understanding of the specialised area of trade law known as trade remedies law required for professional practice.
2. CO 2 - Demonstrate an advanced and integrated knowledge of laws related to: a) Antidumping Duties; b) Countervailing Duties; and c) Safeguards measures.
3. CO 3 – Assess the settlement of disputes by courts
4. CO 4 - Demonstrate an advanced level of proficiency in researching WTO law relating to trade remedies

LLB 808- Banking & Insurance Law

At the successful completion of this course you (the student) should be able to:

1. Acquaint students with banking system of India.
2. Acquaint students with banking system of India.
3. Various aspects and rights that exists for them in Insurance sector.

LLB 809-Air and Space Law.

At the successful completion of this course you (the student) should be able to:

1. Demonstrate advanced and integrated knowledge of the key principles, rules and institutions relating to the air and space law.
2. Apply specialised knowledge of the key rules and legal policy issues relating to the law regimes on civil aviation, aviation insurance, liability for aviation risks and criminal activity during international air travel.
3. Demonstrate advanced knowledge of the key international treaties relating to outer space and their legal status in international law.
4. Analyse the key rules and policy issues relating to the space objects, commercial use of outer space and the use of outer space for military purposes.
5. Critically evaluate the current status and effectiveness of the key treaties, rules and institutions of international air and space law

LLB 901 -LAW OF TAXATION

Upon the successful completion of the course, the students will be able to:

- i) The students will know the development and application of different provisions of taxation laws.
- ii) The student will gain working knowledge regarding computation of tax liability under Direct and Indirect taxes and the relevant procedures.

LLB 902-Public International Law

On successful completion of this course, students will be able to:

1. Identify the nature of international law and the structure of the international legal system and explain the basic elements of public international law.
2. Apply international law in practical contexts, including the law surrounding the use of force, space law and human rights.
3. Analyse the impact of international law on diverse peoples, and critique the operation of international law from a range of ethical perspectives.

LLB 903-Environment Law

On completion of this program, the student should be able to

1. Explain the conceptual and operational parameters of various special principles/doctrines of Environmental Law.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
3. Critically understand the efficacy of the above said law in to.

LLB 904 -Mediation & Conciliation and Arbitration

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Investigate the significance of Alternative Dispute Resolution framework
2. Learn the differences and effects of Arbitration, Mediation and Conciliation
3. To impart the details of ADR and mediation Laws in various Legislations of India
4. Learn the scope and enforcement of Arbitration & Conciliation Act 1996 as an effective tool of ADR Mechanism

LLB 905 CG- Corporate Financing

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Corporate Law.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
3. Critically understand the efficacy of the above said law in the corporate finance sector.

BBL 905 CP FEDERALISM

The students would understand a deeper concept of federal model and why was quasi federal model picked for our country specifically; primarily looking at places where has federal and unitary model been adhered to in our exhaustive Constitutional text.

- i) The student would be able to appreciate the true essence and spirit of democracy in light of constitutional principles ensured and enunciated in the textual record, read as the '*law of the land*'.
- ii) The students would be able to problematize and analyze the present day nuances and relevance of federalism in light of landmark judgments so as to appreciate the constitutional evolution.
- iii) Deep understanding of the Indian Constitutional provisions in light of the major doctrines and their evolution as absolute concepts in form of *basic structure* and *judicial activism* along with remedies ensured for the same in the text.
- iv) Analyze the importance of economic, political and social integration in tune with the Constitutional provisions and the impact of judicial pronouncements. Also to evaluate supremacy of Indian Constitution and obliteration of its ethos and the active role of Judiciary to safeguard the Constitution

LLB 905 CRL -FORENSIC SCIENCE-II

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Explain the conceptual and operational parameters of various special principles of Law of Forensics.
2. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned
3. Critically understand the efficacy of the above said law in to.

LLB 905 IPR-IPR Management

1. Explain the conceptual and operational parameters of various special principles/doctrines of Corporate Law.
2. Apply Intellectual Property legal framework to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned
3. Critically understand the efficacy of the above said law in the corporate finance sector.

LLB 905 ITL-Law of International Commercial Arbitration

At the successful completion of this course you (the student) should be able to:

1. Understand the meaning International Commercial Arbitration.
2. Understand the jurisdiction of various international Conventions in relation to International Commercial Arbitration.

3. Analyse the importance of various institution in relation to International Commercial Arbitration and Applicable Laws
4. Study the mechanism for resolution of disputes under International Commercial Arbitration is generally conducted under an International Institution
5. Analyse the recognition and enforcement mechanism for international commercial arbitration Award and its adequacy.
6. Evaluate the Applicability of sovereign immunity Concept and various theories in relation to sovereign immunity in international Commercial Arbitration.

LLB 906 CG-Corporate Taxation (Corporate Law Hons. Paper VI)

On successful completion of this course, students will be able to:

1. To identify the difference between tax evasion and tax planning and will be able to explain different types of incomes and their taxability and expenses and their deductibility.
2. To describe how the provisions in the corporate tax laws can be applied for tax planning.
3. To outline the corporate tax laws and the use of deductions of expenses to reduce the taxable income.

LLB 906CP-Media Law

Having completed the said course, students will be able to:

1. Explain the conceptual and operational parameters of various special principles/doctrines of Media Law.
2. Apply Media Law to assist the aggrieved party in getting justice from the court of law, if at all, his/her grievance is not taken care of by the concerned.
3. Right to speech and expression and restriction thereon.
4. Critically understand the efficacy of the above said law in toto.

LLB 906 CRL-PROBATION AND PAROLE

On completion of this program, the student should be able to

- a. Explain the conceptual and operational parameters of various special principles of Law of Probation and Parole.
- b. Apply special doctrine to assist the aggrieved party in getting justice from the court of law, if at all; his/her grievance is not taken care of by the concerned.
- c. Critically understand the efficacy of the above said law in to.

LLB906- IPR-IPR Litigation Hons.

1. Skill to understand the concept of intellectual property rights.
2. Develops procedural knowledge to Legal System and solving the problem relating to intellectual property rights.

3. Employability as the Compliance Officer, Public Relation Officer and Liaison Officer.
4. Establishment of Legal Consultancy and service provider.

LLB 906 ITL-International Investment Law

At the successful completion of this course you (the student) should be able to:

1. Understand the legal framework and development of foreign investment in India.
2. Appreciate the legal and practical principles governing foreign Investment in India and examine the role and Perspectives and emergence of bilateral, regional, and multilateral Investments Treaties.
3. Study the role of foreign investment in the development of Nation and also the Responsibilities of foreign investors vis-a-vis environment, human rights and other municipal concerns of host state.
4. Analyse the Trends and issues in treaty-based remedies for foreign investors, the role of foreign arbitral institutions and Recognition and enforcement of foreign arbitral awards with specific reference to India.
5. Evaluate the role of International Centre for Settlement of Investment Disputes (ICSID), essentials conditions for the jurisdiction of ICSID and patterns of consent and meaning of foreign investment under Article 25 of the ICSID.

ILB 907-INTERNATIONAL TRADE LAW

1. Explain the conceptual and operational parameters of various special principles/doctrines of International Trade Law.
2. To inform students of the legal structures and mechanisms that underlie International Trade.
3. To examine major trends in international trade and the role of the WTO, including trade liberalisation.
4. To familiarize students with the treaty obligations of GATT, WTO, GATS and Developing Countries with special emphasis on the developments arising out of the URUGUAY ROUND culminating in the final Marrakesh Treaty International Agreements.

LLB 908 -Animal Protection Law (Optional Paper)

At the successful completion of this course you (the student) should be able to:

1. CO 1 – Demonstrate an advanced knowledge and conceptual understanding about the Animal Welfare, Animal rights, definition, status of animal welfare in India.
2. CO 2 - Demonstrate a knowledge of the International and national framework of animal-related legislation.

3. CO 3 – Critically evaluate the law in both the protection and exploitation of animals, identifying areas in which the animal law needs reform and strategies to achieve such reform
4. CO 4 – Critically analyse the issues pertaining to the different legislations related to Animal Laws.

LLB 1001-Moot court exercise and Internship

At the successful completion of this course you (the student) should be able to:

1. The students are able to understand legal issues at advance level.
2. The students are able to research upon various fields of law and deduce rational decisions out of judicial interpretations.
3. To analyze hypothesis and utilize legal research methodology for justification of legal issues.
4. Projects under the field of law are tested and carried out taking into consideration the legal viewpoints.

ILB 1003-DRAFTING, PLEADING AND CONVEYANCING (clinical) II

Upon successful completion of this course students will be able to:

1. Analyse and apply general principles of drafting and conveyancing
2. Use effective writing techniques to draft different types of legal documents
3. Draft different types of Deeds including deed of sale of land, mortgage deeds, licence deeds, lease deeds, assignment deeds, trust deeds, partnership deeds and power of attorney deeds
4. Draft different types of contracts including commercial agreements, professional services agreement, employment agreements franchise, agency, dealership and distributorship agreements, intellectual property rights agreements, arbitration agreements, foreign collaboration and joint ventures agreements and real estate and tenancy agreements

LLB 1004 CG -Law on Infrastructure Development (Corp. Hons)

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Identify and to Investigate the Constitutional Aspects of Infrastructure Development and Government's Power and appropriate Procedures for execution.
2. To provide knowledge to the students regarding Concept of Eminent Domain and laws of Land Acquisitions.
3. Imparting knowledge to the students in context of various Infrastructure Sectoral polices, reforms in Real Estate, Power Sector/Electricity/ Telecommunications/ Oil & Gas/ Water and Transport and most importantly Public Purpose of provisions.

4. Providing professional and practical skills for better execution of the Infrastructure Laws in concerned sector.

LLB 1004 CP-Comparative Constitution

- i) The students would understand a deeper comparative concept of constitution of different nations.
- ii) The student would be able to appreciate the true essence and spirit of democracy in light of constitutional principles ensured and enunciated in the textual record, read as the '*law of the land*'.
- iii) The students would be able to problematize and analyze the present day nuances and relevance of Constitution in light of landmark judgments so as to appreciate the constitutional evolution.
- iv) Deep understanding of the Constitutional provisions in light of the major doctrines and their evolution as absolute concepts in form of *basic structure* and *judicial activism & review* along with remedies ensured for the same in the text.
- v) Analyze the importance of economic, political and social integration in tune with the Constitutional provisions and the impact of judicial pronouncements. Also to evaluate supremacy of Constitution and its ethos and the active role of Judiciary to safeguard the Constitution and civil liberties.
- vi) Get a sense and nuances of various shades of Parliamentary form of Government with its merits and demerits and the implementation of rule of law besides preserving the basic structure to maintain the sanctity and originality of -Constitution.

LLB 1004 CRL-COMPARATIVE CRIMINAL PROCEDUREL LAW

Upon successful completion of this course students will be able to:

1. An appreciation that what appears "normal" or "just" in the context of one country's criminal procedural laws may appear unusual or unjust in another;
2. An understanding of cross-border and international criminal law enforcement, and some of the problems they raise; A skill at spotting areas of potential misunderstanding among criminal law practitioners from different countries.
3. An understanding of cross-border and international criminal law enforcement, and some of the problems they raise;
4. A skill at spotting areas of potential misunderstanding among criminal law practitioners from different countries.
- 5.

LLB 1005- IPRBIODIVERSITY PROTECTION

1. Identify various areas in which laws are required in the field of flora and fauna.

2. Interpret and discuss the legal problems concerning Biodiversity.
3. Explain how legal complications arise in matters development and flora and fauna and relate it to human existence with co-existence of non-human habitants of the planet.

LLB 1005 ITL- Maritime Law

At the successful completion of this course you (the student) should be able to:

1. Understand the legal framework and development of Maritime Law in India.
2. Appreciate the legal and practical principles governing Maritime Law in India and examine the laws and legal systems of India's water bodies and ports, as well as those of other nations, from a legal standpoint
3. Address a wide range of topics such as maritime insurance, national maritime law, environmental laws, piracy, rules controlling the transport of various items by sea, international sales of products, legislation drafting, and contract law.
4. Apply legal arguments to Maritime Law and apply maritime rules into reality.
5. Examine, evaluate, and apply Maritime Laws to a given scenario and the laws and legal systems relating to India's water bodies and ports from a legal standpoint.

LLB 1005 CG- Law on Project Finance

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and Critical steps of Project Finance
- (2)--Have a thorough understanding of Business Model, Competencies in Project Finance, and Estimation of cost of Project
- (3)--Have a clear understanding of Project feasibility Analysis

LLB 1005 CP-Health Law

After the successful completion of the course the students will be able to:

- (1)--Understand the basic concepts and principles of Right to Health under Indian Laws and international laws.
- (2)--Have a thorough understanding of Various Dimensions of Health and Right to Health and Related aspects..
- (3)--Have a clear understanding of relation of right to health under Judicial precedent.

LLB1006CRL -Offences against Child & Juvenile Offences

- i) Understand the legal, conceptual and operational parameters of the juvenile delinquency and offences against child
- ii) Understand and appreciate the issue of juvenile delinquency and offences against child in a broader social context
- iii) Appreciate the legal instruments which can be used to tackle the problem of juvenile delinquency and offences against child

LLB 1006 IPR-Patent Drafting and Specification Writing

1. Identify various laws involved in the field of patent drafting and specification writing.
2. Interpret and discuss the legal problems concerning patent drafting and specification writing.
3. Explain how legal complications arise in matters concerning patent drafting and specification writing and relate it to day-to-day human existence in the current times.

LLB 1006-ELECTION LAW

- i. Understand the issues related to election to the Offices of the Member of Parliament, State Legislative Assembly and Local Bodies.
- ii. Analyze the issues related to qualification and disqualification of candidates.
- iii. Understand the role and challenges of Election Commission.

LLB 1007-PRIVATE INTERNATIONAL LAW

- i. Understand the principle of conflict of laws and its application involving the foreign element.
- ii. Understand the Principle of recognition and enforcement of foreign Judgment.
- iii. Identify and apply the principle of conflicts of laws in relation to the Indian legal mechanism and its practice.
- iv. Analyze the issue of jurisdiction and application of foreign laws in a case where foreign element is involved.



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY LAW SCHOOL (ALS)

LL.M Corporate and Commercial Law

Programme Code: ILM

121206

Duration – 1 Year Full Time

Programme Structure

Credits Summary

LL.M Corporate and Commercial Law 01 Year/ 02 Semesters)						
Semes ter	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non Teaching Credit Courses (NTCC)	Total
I	13	-	-	-	2	15
II	12	-	-	-	-	12

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non- Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

- 1) To develop an attitude of self-reflection while learning & Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of changing legal contexts. Learn the art of doing doctrinal and empirical research which covers knowledge and implementation of various tools and techniques of research.
- 2) To demonstrate knowledge and understanding of corporate and banking services laws and regulation and of certain widely adopted international law standards
- 3) Apply ethical principles and commit to legal professional ethics, responsibilities, and norms of the established legal practices.
- 4) Develop the ability of analyzing the law in relation to contemporary developments at national and international level.

Program Structure

AMITY LAW SCHOOL (ALS) **LL.M Corporate and Commercial Law**

SEMESTER-I

Code	Course	Category	L	T	P/F W	Credit Units
ILM 101	RESEARCH METHOD & LEGAL WRITING	CC	3			3
ILM 102	COMPARATIVE PUBLIC LAW/ SYSTEM OF GOVERNANCE	CC	3			3
ILM 103	LAW AND JUSTICE IN A GLOBALIZING WORLD	CC	3			3
AND001	Anandam-I	NTCC				2
	SPECIALIZED BRANCH (CORPORATE AND COMMERCIAL LAW)					
ILM 104CCL	LAWS ON SECURITIES AND FINANCIAL MARKETS	CC	2			2
ILM 105 CCL	CORPORATE GOVERNANCE	CC	2			2
Total			13			15

SEMESTER-II

Code	Course	Category	L	T	P/F W	Credit Units
ILM 205	DISSERTATION	CC			3	3
ILM 206	TUTELAGE	CC	1			1
	SPECIALIZED BRANCH (CORPORATE AND COMMERCIAL LAW)					
ILM 201 CCL	Competition Law	CC	2			2
ILM 202 CCL	International Trade Law	CC	2			2
ILM 203 CCL	Investment Law	CC	2			2
ILM 204 CCL	Intellectual Property Law	CC	2			2
Total			9		3	12

COURSE OUTCOMES

AMITY LAW SCHOOL (ALS) LL.M Corporate and Commercial Law

ILM 101-RESEARCH METHOD & LEGAL WRITING

Upon successful completion of this course students will be able to:

1. Students will be able to have a conceptual understand the research, legal research its method and methodology and distinguish them.
2. Students will be able to know the different sources of law and their relationship inter sin in legal & socio-legal research. And also able to understand the content of legal research methods & Legal writing.
3. Students will be able to discuss the fundamental concepts underlying in legal& socio-legal research , research method & Legal writing.
4. Students will be able to read, analyze and understand different legal materials, and to narrate the reasoning employed in the research& Legal writing. .

ILM 102-COMPARATIVE PUBLIC LAW / SYSTEM OF GOVERNANCE

At the successful completion of this course you (the student) should be able to:

1. Investigate the matter that the particular subject matter comes in the ambit of Law of Comparative Public Law / System of Governance.
2. Create in his mind that what are the laws are relating to Parliamentary privileges in UK and India, parliamentary supremacy in UK, Role of Queen and Indian President in comparative perspective.
3. Student will be able to apply principles for the application of Comparison of fundamental rights in India and USA
4. Develop knowledge regarding all rights. Student will come to know that Freedom of speech and expression, freedom of press, assembly and association, freedom of religion and protection of minority rights in India, freedom of religion in USA, Freedom of Profession and trade in India and USA.

ILM 103-LAW AND JUSTICE IN A GLOBALIZING WORLD

Upon successful completion of this course students will be able to:

1. To understand the process of globalization and its impact on law and justice in a historical perspective.
2. To critically analyse the concept of global justice and the mechanisms designed to achieve it.
3. To better appreciate the demands for change raised by different groups to the international legal order and institutions in the light of globalization.

ILM 104 CCL-LAWS ON SECURITIES AND FINANCIAL MARKETS

At the successful completion of this course the student of B.A.LL.B. (H) should be able to:

1. Investigate the significance of issue of securities and scope of capital market and money market
2. Learn the process of issue of securities
3. Understanding the different kinds of securities
4. Learn the scope of depositories, mutual fund, intermediaries and stock exchanges.

ILM 105 CCL-CORPORATE GOVERNANCE

On successful completion of this course, students will be able to:

- i. Apply principles of corporate law in a rigorous and principled manner. Undertake legal research at an intermediate level using both primary and secondary sources.
- ii. Apply corporate law to generate solutions to complex legal problems, and critique the operation of corporate law from a policy perspective.
- iii. Structure and sustain concise and cohesive written arguments for a mixed lay and legal audience. Work effectively to complete complex tasks within a limited time, both as a member of a team and individually.
- iv. Exercise appropriate strategic professional judgment in the resolution of a corporate law problem in an academic environment. Interact in a professional and ethical manner with team members and peers.

ILM 201 CCL-COMPETITION LAW

At the successful completion of this course the student of LL.M. 2ND Semester should be able to:

1. Investigate the validity and enforceability of different types of contracts.
2. Provisions related to prohibition of certain agreements
3. Constitution and Legal procedure of work of Competition Commission of India, Competition Appellate Tribunal
4. Concept of abuse of domain position, combination, and its investigation by Commission

ILM 203 CCL- INVESTMENT LAW

At the successful completion of this course you (the student) should be able to:

1. Investigate the matter that the particular subject matter comes in the ambit of Law of corporate finance and regulatory framework and what are the rights & defences available in this regards.

2. Create in his mind that what are the laws relating to regulatory framework for foreign trade, multinational companies & use of subject matter that could be applicable to the masses.
3. Student will be able to apply principles for the application of the rule of investment law.
4. Develop knowledge regarding all rights. Student will come to know that foreign exchange management is actually directing towards and types of remedies available against any violation. Every remedy under investment law in general of the aggrieved party.

ILM 204 CCL-INTELLECTUAL PROPERTY RIGHTS

This course has been prepared in the light of the following learning out come –

1. Rationalization of certain definitions with additions of certain new definitions of new types of vehicles.
2. Administration of the Intellectual Property Rights.
3. Provision for enhanced compensation in case of IP rights is violated.
4. Constitution of Intellectual Property Appellate Board.

ILM 205-DISSERTATION

At the successful completion of this course you (the student) should be able to:

1. The students are able to understand legal issues at advance level.
2. The students are able to research upon various fields of law and deduce rational decisions out of judicial interpretations.
3. To analyze hypothesis and utilize legal research methodology for justification of legal issues.
4. Projects under the field of law are tested and carried out taking into consideration the legal viewpoints.



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY LAW SCHOOL (ALS)

LL.M Constitutional Law

Programme Code: ILM

12426

Duration – 1 Year Full Time

Programme Structure

Credits Summary

LL.M Constitutional Law						
01 Year/ 02 Semesters)						
Semes ter	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non Teaching Credit Courses (NTCC)	Total
I	13	-	-	-	2	15
II	12	-	-	-	-	12

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non- Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

1. Enabling the art of undertaking doctrinal and empirical research covering a wide area of socio-legal knowledge and implementation of various tools and techniques of research.
2. To develop ability of the students to analyze the legal problems from scholarly and objective point of view and work towards finding solutions to the problems by application of laws and regulations.
3. Apply ethical principles and commit to legal professional ethics, responsibilities and norms of the established legal practices.
4. To Study the specialized Constitutional law courses with a globalized perspective and do a comparative study of the Indian law with other countries.

Program Structure

AMITY LAW SCHOOL (ALS)

LL.M Constitutional Law

SEMESTER-I

Code	Course	Category	L	T	P/F W	Credit Units
ILM 101	Research Method & Legal Writing	CC	3			3
ILM 102	Comparative Public Law/ System Of Governance	CC	3			3
ILM 103	Law And Justice In A Globalizing World	CC	3			3
AND001	Anandam-I	NTCC				2
SPECIALIZED BRANCH (Constitutional Law)						
ILM 104CL	Fundamental Rights, Fundamental Duties and Directive Principles of State Policy	CC	2			2
ILM 105CL	Local Self Government & Federal Government	CC	2			2
Total			13			15

SEMESTER-II

Code	Course	Category	L	T	P/FW	Credit Units
ILM 205	DISSERTATION	CC			3	3
ILM 206	TUTELAGE	CC	1			1
Specialized Branch (Constitutional Law)						
ILM 201 C.L	Centre - State Relations and Constitutional Governance	CC	2			2
ILM 202 C.L	Judicial Review	CC	2			2
ILM 203 C.L	Comparative Administrative Law	CC	2			2
ILM 204 C.L	Minorities Law	CC	2			2
Total			9		3	12

COURSE OUTCOMES

AMITY LAW SCHOOL (ALS) LLM – Constitutional Law

ILM 101-RESEARCH METHOD & LEGAL WRITING

Upon successful completion of this course students will be able to:

1. Students will be able to have a conceptual understand the research, legal research its method and methodology and distinguish them.
2. Students will be able to know the different sources of law and their relationship inter sin in legal & socio-legal research. And also able to understand the content of legal research methods & Legal writing.
3. Students will be able to discuss the fundamental concepts underlying in legal& socio-legal research , research method & Legal writing.
4. Students will be able to read, analyze and understand different legal materials, and to narrate the reasoning employed in the research& Legal writing. .

ILM 102-COMPARATIVE PUBLIC LAW / SYSTEM OF GOVERNANCE

At the successful completion of this course you (the student) should be able to:

1. Investigate the matter that the particular subject matter comes in the ambit of Law of Comparative Public Law / System of Governance.
2. Create in his mind that what are the laws are relating to Parliamentary privileges in UK and India, parliamentary supremacy in UK, Role of Queen and Indian President in comparative perspective.
3. Student will be able to apply principles for the application of Comparison of fundamental rights in India and USA
4. Develop knowledge regarding all rights. Student will come to know that Freedom of speech and expression, freedom of press, assembly and association, freedom of religion and protection of minority rights in India, freedom of religion in USA, Freedom of Profession and trade in India and USA.

ILM 103-LAW AND JUSTICE IN A GLOBALIZING WORLD

Upon successful completion of this course students will be able to:

1. To understand the process of globalization and its impact on law and justice in a historical perspective.
2. To critically analyse the concept of global justice and the mechanisms designed to achieve it.
3. To better appreciate the demands for change raised by different groups to the international legal order and institutions in the light of globalization.

ILM 104 CL- FUNDAMENTAL RIGHTS, FUNDAMENTAL DUTIES AND DIRECTIVE PRINCIPLES OF STATE POLICY

Upon successful completion of this course students will be able to:

1. Analyse and evaluate the nature and meaning of the fundamental rights, fundamental duties and DPSP.
2. Analysis the Co-relation amongst these.
3. Analysis the importance in present scenario when the Supreme Court made in enforceable.
4. Students will able to know about the consequences when any contradiction arisen between these.

ILM 105 CL-LOCAL SELF GOVERNMENT & FEDERAL GOVERNMENT

Upon successful completion of this course students will be able to:

1. Analyse and evaluate the nature and meaning of the different types of Government i.e. federal Government, parliament form of government and local self Government.
2. Analysis the constitution, composition, powers, functions, duties of Gram Panchayat and their importance in democratic country.
3. Analysis the constitution, composition, powers, functions, duties of Urban Panchayat and their importance in democratic country.
4. Students will able to know about the election process of Panchayat and litigation in election matter.

ILM 201 CL - CENTRE - STATE RELATIONS AND CONSTITUTIONAL GOVERNANCE

Upon successful completion of this course students will be able to:

1. This course aims at making the students familiar with the historical background of and the nature of federalism in India. It also gives an understanding of the different forms of Constitutions. Further, it enables the students to understand the judicial perspective over the Indian federalism. The course also aims at enabling the student to understand the legislative, administrative and financial relations between the Union and the States. It shall help the students to understand the principles of interpretation of various lists and the doctrines in relation thereto. Further, the students will be familiarised with the Services under the Union and the States and also the emergency provisions under the Constitution of India. This paper aims at giving the students an insight into the federal structure as envisaged in the Constitution of India and focuses upon educating them about the Legislative, Administrative and Financial relations between the Centre and the States

ILM 202 CL- JUDICIAL REVIEW

At the successful completion of this course the students should be able to be:-

1. Acquainted with the idea and concept of judicial review and various factors responsible for emergence of judicial activism in the society.
2. Able to appreciate the concepts of judicial review and interdisciplinary nature of study of judicial activism and legislative functions and appreciate the role of various other players involved in between.

3. Able to understand the concepts of administration of criminal and civil justice system and fair trial in the background of judicial review

ILM 203 CL-Comparative Administrative Law

1. Enabling the art of undertaking doctrinal and empirical research covering a wide area of socio-legal knowledge and implementation of various tools and techniques of research.
2. To develop ability of the students to analyze the legal problems from scholarly and objective point of view and work towards finding solutions to the problems by application of laws and regulations.
3. Apply ethical principles and commit to legal professional ethics, responsibilities and norms of the established legal practices.
4. To Study the specialized Constitutional law courses with a globalized perspective and do a comparative study of the Indian law with other countries.

ILM204 CL-MINORITIES LAW

Upon completion of the course, the student should demonstrate mastery of the following knowledge and skills:

1. A complete overview of international law and practice in minority rights and indigenous peoples
2. Learn about the current mechanisms in minority rights and indigenous peoples rights, and the gap between UN international rights norms and their implementation on the ground
3. The students will come to know the constitutional provision related to minorities sections.
4. Students will also come to know the different state machinery to enforce the minorities rights.

ILM 205-DISSERTATION

At the successful completion of this course you (the student) should be able to:

1. The students are able to understand legal issues at advance level.
2. The students are able to research upon various fields of law and deduce rational decisions out of judicial interpretations.
3. To analyze hypothesis and utilize legal research methodology for justification of legal issues.
4. Projects under the field of law are tested and carried out taking into consideration the legal viewpoints.



AMITY UNIVERSITY
— R A J A S T H A N —

AMITY LAW SCHOOL (ALS)

LL.M Criminal Law

121045

Programme Code: ILM

Duration – 1 Year Full Time

Programme Structure

Credits Summary

LL.M Criminal Law

01 Year/ 02 Semesters)

LL.M Criminal Law 01 Year/ 02 Semesters)						
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non Teaching Credit Courses (NTCC)	Total
I	13	-	-	-	2	15
II	12	-	-	-	-	12

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non- Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

1. Interpretation and analysis of the legal and social problems and find solutions to the socio – legal problems by application of laws and regulations. Learn the art of doing doctrinal and empirical research which covers knowledge and implementation of various tools and techniques of research.
2. Enabling the students to explore and learn the detailed laws and the procedure pertaining to the Criminal law study and to analyse the judicial response to it.
3. Apply ethical principles and commit to legal professional ethics, responsibilities and norms of the established legal practices.
4. To Study the application of the legal principles and doctrines in a globalized world and compare it among various countries.

Program Structure

AMITY LAW SCHOOL (ALS)

LL.M Criminal Law

SEMESTER-I

Code	Course	Category	L	T	P/FW	Credit Units
ILM 101	Research Method & Legal Writing	CC	3			3
ILM 102	Comparative Public Law/ System Of Governance	CC	3			3
ILM 103	Law And Justice In A Globalizing World	CC	3			3
AND001	Anandam-I	NTCC				2
SPECIALIZED BRANCH (Criminal Law)						
ILM104Cr. L	Criminology and Penology	CC	2			2
ILM105Cr. L	Victim Justice and Human rights	CC	2			2
Total			13			15

SEMESTER-II

Code	Course	Category	L	T	P/FW	Credit Units
ILM 205	DISSERTATION	CC			3	3
ILM 206	TUTELAGE	CC	1			1
Specialized Branch (Criminal Law)						
ILM 201 Cr.L	Comparative Criminal Procedure Law	CC	2			2
ILM 202 Cr.L	International Criminal Law	CC	2			2
ILM 203 Cr.L	White Collar Crimes	CC	2			2
ILM 204 Cr.L	Principles Of Criminal Liability And Felonious Torts	CC	2			2
Total			9		3	12

COURSE OUTCOMES

AMITY LAW SCHOOL (ALS) LL.M Criminal Law

ILM 101-RESEARCH METHOD & LEGAL WRITING

Upon successful completion of this course students will be able to:

1. Students will be able to have a conceptual understand the research, legal research its method and methodology and distinguish them.
2. Students will be able to know the different sources of law and their relationship inter sin in legal & socio-legal research. And also able to understand the content of legal research methods & Legal writing.
3. Students will be able to discuss the fundamental concepts underlying in legal& socio-legal research , research method & Legal writing.
4. Students will be able to read, analyze and understand different legal materials, and to narrate the reasoning employed in the research& Legal writing. .

ILM 102-COMPARATIVE PUBLIC LAW / SYSTEM OF GOVERNANCE

At the successful completion of this course you (the student) should be able to:

1. Investigate the matter that the particular subject matter comes in the ambit of Law of Comparative Public Law / System of Governance.
2. Create in his mind that what are the laws are relating to Parliamentary privileges in UK and India, parliamentary supremacy in UK, Role of Queen and Indian President in comparative perspective.
3. Student will be able to apply principles for the application of Comparison of fundamental rights in India and USA
4. Develop knowledge regarding all rights. Student will come to know that Freedom of speech and expression, freedom of press, assembly and association, freedom of religion and protection of minority rights in India, freedom of religion in USA, Freedom of Profession and trade in India and USA.

ILM 103-LAW AND JUSTICE IN A GLOBALIZING WORLD

Upon successful completion of this course students will be able to:

1. To understand the process of globalization and its impact on law and justice in a historical perspective.
2. To critically analyse the concept of global justice and the mechanisms designed to achieve it.
3. To better appreciate the demands for change raised by different groups to the international legal order and institutions in the light of globalization.

ILM 104 CrL-CRIMINOLOGY AND PENOLOGY

At the successful completion of this course the students should be able to be:-

1. Acquainted with the idea and concept of criminology and various factors responsible for emergence of criminal behaviour in the society.
2. Able to appreciate the concepts of penology, issues involved in prison system, differentiate between probation and parole and interdisciplinary nature of study of criminology and penology and appreciate the role of various modes of punishments in regulating the criminal behaviour in society.
3. Able to understand the concepts of administration of criminal justice system and fair trial.

ILM 105 CrL- VICTIM JUSTICE AND HUMAN RIGHTS SPECIALIZED BRANCH (Criminal Law)

At the successful completion of this course the students should be able to:

1. Students will be able to have a conceptual understanding of the subject. Investigate the matter that the particular subject matter comes in the ambit of the **VICTIM JUSTICE AND HUMAN RIGHTS**
2. Students will be able to discuss the fundamental concepts underlying and Create in mind that what are the laws are relating to victim of crime and use of the laws and what are the rights available to victims of crime in this regard. their learning of the subject that could be applicable to the society.
3. 3. Students will be able to apply principles of the Law, Justice and Human Rights in favour of victims.
4. Develop the knowledge regarding all rights of victims. Students will come to know that Criminal Law, Indian Constitution, and Human Rights is actually directing towards and types of remedies available against any offence. Every remedy under law and Human Rights, pecuniary jurisdiction & jurisdiction in general of the aggrieved party. Students will be able to read, analyse and understand the subject, and to narrate the reasoning employed by judges in their judgements

ILM 201CrL-COMPARATIVE CRIMINAL PROCEDURE LAW

Upon successful completion of this course students will be able to:

1. An appreciation that what appears “normal” or “just” in the context of one country’s criminal procedural laws may appear unusual or unjust in another;
2. An understanding of cross-border and international criminal law enforcement, and some of the problems they raise; A skill at spotting areas of potential misunderstanding among criminal law practitioners from different countries.
3. An understanding of cross-border and international criminal law enforcement, and some of the problems they raise;

4. A skill at spotting areas of potential misunderstanding among criminal law practitioners from different countries.

ILM 202 Cr.L-INTERNATIONAL CRIMINAL LAW

Students must gain knowledge on:

1. Fundamentals of International Criminal Law, Use specific terms and sources of the International Criminal Law.
2. The most problematic issues of international criminal law in particular concerning the international criminal justice and the individual criminal responsibility for genocide, crimes against humanity, war crimes and the crime of aggression.
3. Practical abilities of research, analysis of judicial decisions and scholarly writings.
4. Skills to analyze and solve cases, building up of the legal position and composition of procedural documents on cases in the sphere of international criminal law.

ILM 203 Cr.L-WHITE COLLAR CRIMES

Upon successful completion of this course students will be able to:

1. To study the concept of white collar crimes in detail.
2. Analysis and evaluate the impact of white collar crime from Indian perspective
3. Students will able to know that white-collar crime is a serious problem in our society. Beyond economic costs white-collar offenses have the potential to cause serious physical and emotional damage to victims. Second, unlike some offense types, it is important to recognize that white-collar offenses affect everyone.

ILM 204 CrL - Principles of Criminal Felonious Torts [CRIMINAL LAW]

The student after completion of this course will be able to:

1. To acquaint with the meaning and nature of Felonious Torts.
2. To understand various kinds of criminal liabilities.
3. To acquaint with the comparative study of Criminal Law and Torts.
4. To understand the efficacy of the above said laws in toto and analyse the case laws

ILM 205-DISSERTATION

At the successful completion of this course you (the student) should be able to:

1. The students are able to understand legal issues at advance level.
2. The students are able to research upon various fields of law and deduce rational decisions out of judicial interpretations.
3. To analyze hypothesis and utilize legal research methodology for justification of legal issues.
4. Projects under the field of law are tested and carried out taking into consideration the legal viewpoints.



AMITY UNIVERSITY
— R A J A S T H A N —

**Amity School of Architecture & Planning
(ASAP)**

Bachelor of Architecture

12040

Duration – 5 Years Full Time

Programme Structure

Credit Summary Sheet

Bachelor of Architecture (05 Years / 10 Semesters)

Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non- Teaching Credit Courses (NTCC)	Total
I	23	0	6	0	0	29
II	24	0	6	3	0	33
III	21	1	6	3	0	31
IV	22	2	6	3	0	33
V	23	2	6	3	0	34
VI	23	2	6	3	0	34
VII	22	4	4	0	0	30
VIII	0	0	0	0	25	25
IX	20	4	0	0	0	24
X	20	6	0	0	0	26
Total	198	21	28	15	37	299

Program Specific Outcomes (PSOs)

Following are the Program Learning Outcomes of Bachelor of Architecture:

1. To develop critical and analytical approach in handling architecture designs of all types of buildings through demonstrating self-reflective process of conceptualizing and design thinking.
2. To create ability to identify social, economic, cultural and ecological issues and their impact on architectural design & apply theoretical knowledge gained from history, humanities & science to achieve sustainable architecture with emphasis on energy efficiency.
3. To Impart sound knowledge of building materials and their use in construction including structural systems.
4. To produce integrated architecture design solutions by incorporating appropriate building technologies and building services.
5. To build ability to understand ethical and professional responsibilities, comprehending realistic aspects of architectural practice, documenting & communicating effectively through graphical presentations while working in interdisciplinary groups.

PROGRAMME STRUCTURE

Amity School of Architecture & Planning (ASAP)

Bachelor of Architecture

FIRST SEMESTER

CourseCode	Course Title	Univ. Category	CoA Category	L/T/ST/P Per Week			Credits	Teaching hours
				L	ST	P		
BAR 101	Design -I	CC	PC	0	6	0	9	6
BAR 102	Materials & Construction Technology – I	CC	BS & AE	1	1	1	3	3
BAR 103	Structural Design & Systems – I	CC	BS & AE	2	0	0	2	2
BAR 104	Graphics Skills - I	CC	PC	0	0	4	2	4
BAR 105	History of Built Environment	CC	PC	2	0	0	2	2
BAR 106	Architectural Workshop	CC	PC	0	0	2	1	2
BAR 107	Theory of Design	CC	PE	2	0	0	2	2
BAR 108	Visual Arts & Appreciation	CC	PE	0	0	2	1	2
BAR 109	Presentation Techniques	CC	PE	0	0	2	1	2
AND 001	Aanandam-I	VA	SEC	0	0	4	2	4
BCS 101	English	VA	SEC	1	0	0	1	1
BSS 105	Behavioral Science – I(Understanding Self for Effectiveness)	VA	SEC	1	0	0	1	1
	Foreign Language - I							
FLT 101	French	VA	SEC	2	0	0	2	2
FLG 101	German							
FLS 101	Spanish							
FLC 101	Chinese							
	TOTAL			11	7	15	29	33

SECOND SEMESTER

CourseCode	Course Title	Univ. Category	CoA Category	L/T/ST/P Per Week			Credits	Teaching hours
				L	ST	P		
BAR 201	Design – II	CC	PC	0	6	0	9	6
BAR 202	Materials & Construction Technology – II	CC	BS & AE	1	1	1	3	3
BAR 203	Structural Design and Systems – II	CC	BS & AE	2	0	0	2	2
BAR 204	Graphics Skills – II	CC	PC	0	0	4	2	4
BAR 205	History of Architecture – I	CC	PC	2	0	0	2	2
BAR 206	Building Services – I	CC	BS & AE	2	0	0	2	2
AND 002	Aanandam-II	VA	SEC	0	0	4	2	4
EVS 001	Environment Science	CC	BS & AE	4	0	0	4	4
BCS 201	English	VA	SEC	1	0	0	1	1
BSS 205	Behavioural Science – II(Problem Solving & Creative Thinking)	VA	SEC	1	0	0	1	1
	Foreign Language - II	VA	SEC	2	0	0	2	2
FLT 201	French							
FLG 201	German							
FLS 201	Spanish							
FLC 201	Chinese							
	Open Elective/Minor Track	OE/MT	OE	3	0	0	3	3
	TOTAL			18	7	9	33	34

THIRD SEMESTER

CourseCode	Course Title	Univ. Category	CoA Category	L/T/ST/P			Per	Credits	Teaching hours
				Week	L	ST			
BAR 301	Design – III	CC	PC	0	6	0	9	6	
BAR 302	Materials & Construction Technology – III	CC	BS & AE	1	1	1	3	3	
BAR 303	Structural Design and Systems – III	CC	BS & AE	2	0	0	2	2	
BAR 304	Graphics Skills – III	CC	SEC	0	0	4	2	4	
BAR 305	History of Architecture – II	CC	PC	2	0	0	2	2	
BAR 306	Building Services - II	CC	BS & AE	2	0	0	2	2	
BAR 307	Surveying & Leveling	CC	BS & AE	0	0	2	1	2	
Domain Elective – I (Select any One DE)									
BAR 308	Photography	DE	PE	0	0	2	1	2	
BAR 309	Vernacular Architecture	DE	PE						
BAR 310	Model Making Workshop	DE	PC						
AND 003	Aanandam-III	VA	SEC	0	0	4	2	4	
BCS 301	Communication Skills – I	VA	SEC	1	0	0	1	1	
BSS 305	Behavioral Science – III(Interpersonal Communication)	VA	SEC	1	0	0	1	1	
	Foreign Language - III	VA	SEC	2	0	0	2	2	
FLT 301	French								
FLG 301	German								
FLS 301	Spanish								
FLC 301	Chinese								
	Open Elective/Minor Track	OE/MT	OE	3	0	0	3	3	
	TOTAL			14	7	13	31	34	

FOURTH SEMESTER

Course Code	Course Title	Univ. Category	CoA Category	L/T/ST/P Per Week			Credits	Teaching hours
				L	ST	P		
BAR 401	Design – IV	CC	PC	0	6	0	9	6
BAR 402	Materials & Construction Technology – IV	CC	BS & AE	1	1	1	3	3
BAR 403	Structural Design & Systems – IV	CC	BS & AE	2	0	0	2	2
BAR 404	Graphics Skills – IV	CC	SEC	0	0	4	2	4
BAR 405	History of Architecture – III	CC	PC	2	0	0	2	2
BAR 406	Building Services – III	CC	BS & AE	2	0	0	2	2
BAR 408	Architectural Climatology - Theory & Lab	CC	BS & AE	1	0	2	2	3
Domain Elective – II (Select any One DE)								
BAR 409	Bamboo Architecture	DE	PE	2	0	0	2	2
BAR 410	Architecture Documentation	DE	PE					
BAR 411	Barrier Free Architecture	DE	PE					
AND 004	Aanandam-IV	VA	SEC	0	0	4	2	4
BCS 401	Communication Skills – II	VA	SEC	1	0	0	1	1
BSS 405	Behavioural Science – IV(Relationship Management)	VA	SEC	1	0	0	1	1
	Foreign Language - IV	VA		2	0	0	2	2
FLT 401	French	VA						
FLG 401	German	VA	SEC					
FLS 401	Spanish	VA						
FLC 401	Chinese	VA						
	Open Elective/Minor Track	OE/MT	OE	3	0	0	3	3
	TOTAL			17	7	11	33	35

FIFTH SEMESTER

Course Code	Course Title	Univ. Category	CoA Category	L/ T/ ST /P Per Week			Credits	Teaching hours
				L	ST	P		
BAR 501	Design –V	CC	PC	0	8	0	12	8
BAR 502	Materials & Construction Technology – V	CC	BS & AE	1	1	1	3	3
BAR 503	Structural Design & Systems – V	CC	BS & AE	2	0	0	2	2
BAR 504	Graphics Skills – V (Computer Aided)	CC	SEC	0	0	4	2	4
BAR 505	Building Bye - Laws & Codes Practices	CC	PC	2	0	0	2	2
BAR 506	Building Services – IV	CC	BS & AE	2	0	0	2	2
Domain Elective – III (Select any One DE)								
BAR 507	Building Appreciation	DE	PE					
BAR 508	Energy Conservation Architecture	DE	PE	2	0	0	2	2
BAR 509	Digital Architecture	DE	SEC					
AND 005	Aanandam-V	VA	SEC	0	0	4	2	4
BCS 501	Communication Skills – III	VA	SEC	1	0	0	1	1
BSS 505	Behavioural Science – V (Group Dynamics and Team Building)	VA	SEC	1	0	0	1	1
	Foreign Language – V							
FLT 501	French							
FLG 501	German	VA	SEC	2	0	0	2	2
FLS 501	Spanish							
FLC 501	Chinese							
	Open Elective/Minor Track	OE/MT	OE	3	0	0	3	3
	TOTAL			16	9	9	34	34

SIXTH SEMESTER

Course Code	Course Title	Univ. Category	CoA Category	L/T/ST/P Per Week			Credits	Teaching hours
				L	ST	P		
BAR 601	Design – VI	CC	PC	0	8	0	12	8
BAR 602	Materials & Construction Technology – VI	CC	BS & AE	1	1	1	3	3
BAR 603	Structural Design & Systems – VI	CC	BS & AE	2	0	0	2	2
BAR 604	Quantity Surveying & Specification	CC	PC	2	0	0	2	2
BAR 605	Landscape Design & Site Planning	CC	PC	2	0	0	2	2
BAR 606	Building Services - V	CC	BS & AE	2	0	0	2	2
Domain Elective – IV (Select any One DE)								
BAR 608	Intelligent Buildings	DE	PE	2	0	0	2	2
BAR 609	Vaastu in Architecture	DE	PE					
BAR 610	Architecture Pedagogy	DE	PE					
AND 006	Aanandam-VI	VA	SEC	0	0	4	2	4
BCS 601	Communication Skills – VI	VA	SEC	1	0	0	1	1
BSS 605	Behavioural Science – VI (Stress and Coping Strategies)	VA	SEC	1	0	0	1	1
	Foreign Language -VI	VA		2	0	0	2	2
FLT 601	French							
FLG 601	German		SEC					
FLS 601	Spanish							
FLC 601	Chinese							
	Open Elective/Minor Track	OE/MT	OE	3	0	0	3	3
	TOTAL			18	9	5	34	32

SEVENTH SEMESTER

Course Code	Course Title	Univ. Category	CoA Category	L/T/ST/P Per Week			Credits	Teaching hours
				L	T/ST	P		
BAR 701	Design – VII	CC	PC	0	10	0	15	10
BAR 702	Materials & Construction Technology – VII	CC	BS & AE	1	1	1	3	3
BAR 703	Construction & Project Management	CC	PAECC	2	0	0	2	2
BAR704	Housing & Town Planning	CC	PC	2	0	0	2	2
Domain Elective – V (Select any One DE)								
BAR 705	Architectural Conservation	DE	PE	2	0	0	2	2
BAR 706	Modular Construction Technology	DE	PE					
BAR 707	Colors	DE	PE					
Domain Elective – VI (Select any One DE)								
BAR 708	Bioclimatic Architecture	DE	PE	2	0	0	2	2
BAR 709	Professional Presentation Techniques	DE	PE					
BAR 710	Design of Logo & Signages	DE	PE					
BCS 701	Communication Skills – VII	VA	SEC	1	0	0	1	1
BSS 705	Behavioral Science – VII (Individual, Society & Nation)	VA	SEC	1	0	0	1	1
Foreign Language -VII								
FLT 701	French	VA	SEC	2	0	0	2	2
FLG 701	German							
FLS 701	Spanish							
FLC 701	Chinese							
TOTAL				13	11	1	30	25

EIGHTH SEMESTER

Course Code	Course Title	Univ. Category	CoA Category	L/T/ST/P Per Week			Credits	Teaching hours
				L	T/ST	P		
BAR 801	Practical Training	NTCC	PAECC	0	0	0	25	0

Practical Training will be conducted during Eighth semester. Evaluation (Viva) will be conducted one week after the last date for Ninth Semester Student Re-Registration as announced by AUR.

NINTH SEMESTER

Course Code	Course Title	Univ. Category	CoA Category	L/T/ST/P Per Week			Credits	Teaching hours
				L	T/ST	P		
BAR 901	Design – VIII	CC	PC	0	10	0	15	10
BAR 902	Advanced Materials & Construction Technology	CC	BS & AE	1	1	1	3	3
BAR 903	Dissertation	CC	PAECC	0	0	4	2	4
Domain Elective – VII (Select any One DE)								
BAR 904	Light and Architecture	DE	PE	2	0	0	2	2
BAR 905	Intelligent Interiors	DE	PE					
BAR 906	Disaster Resistant Architecture	DE	PE					
Domain Elective – VIII (Select any One DE)								
BAR 907	Tensile Construction	DE	PE	2	0	0	2	2
BAR 908	Interior Design	DE	PE					
BAR 909	Set Design	DE	PE					
	TOTAL			5	11	5	24	21

TENTH SEMESTER

Course Code	Course Title	Univ. Category	CoA Category	L/T/ST/P Per Week			Credits	Teaching hours
				L	ST	P		
BAR 1001	Architectural Thesis Project	CC	PC	0	12	0	18	12
BAR 1002	Professional Practice & Management	CC	PAECC	2	0	0	2	2
Domain Elective – IX (Select any One DE)								
BAR 1003	Product Design	DE	PE	2	0	0	2	2
BAR 1004	Cost Effective Architecture	DE	PE					
BAR 1005	Geographical Information System	DE	PE					
Domain Elective – X (Select any One DE)								
BAR 1006	Architectural Journalism	DE	PE	2	0	0	2	2
BAR 1007	Building Economics & Legislation	DE	PE					
BAR 1008	Building Information Management	DE	SEC					
Domain Elective – XI (Select any One DE)								
BAR 1009	Environmental Impact Assessment	DE	PE	2	0	0	2	2
BAR 1010	Prefabrication	DE	PE					
BAR 1011	Virtual Architecture	DE	PE					
	TOTAL			8	12	0	26	20
Note: Stage -I and Stage -II must be completed in 8 years as per COA								
Students completing Stage -I can be awarded Bachelors of Building Science Degree but B. Arch Degree will be awarded after completion of Stage -I & Stage -II								

COURSE OUTCOMES

Amity School of Architecture & Planning (ASAP)

Bachelor of Architecture

BAR 101 DESIGN – I

Course Code: BAR 101

Credit Units: 09

L/0-ST/6-P/0 Teaching hours: 06

COURSE OUTCOME:

CO 1 :	Interpret and Implement “Design” as a problem solving process.
CO 2 :	Recognise and Execute visual form, functional space, anthropometrics, technology, economy, culture and environment as key parameters of Architecture.
CO 3 :	Investigate, Compare and Inferexisting architectural spaces through their measured drawings, models and photographs
CO 4 :	Conclude and Recommend criteria to Justify/Decide basis for architecture design proposal
CO 5:	Develop, Propose and Draw the Design for a given architectural situation and Communicate through conventional architectural representations

BAR 102 MATERIALS AND CONSTRUCTION TECHNOLOGY - I

Course Code: BAR 102

Credit Units: 03

L/1-ST/1-P/1 Teaching hours: 03

COURSE OUTCOME:

CO 1 :	To define basic building elements.
CO 2 :	To Recognize the various types of brick and stone masonry both in superstructure and foundation
CO 3:	To know about the types and fundamental aspects of construction in stone & brick i.e masonry, openings
CO 4 :	To be able to use composite materials in a structure.
CO 5 :.	To be aware of the properties and applications of the various materials

BAR 103 STRUCTURAL DESIGN & SYSTEM- I

Course Code: BAR 103 Credit Units: 02

L/2-sT/0-P/0

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Analyse& evaluate the stress - strain relations for beam element under various loading & support conditions.
CO 2 :	To Recognize the various types of brick and stone masonry both in superstructure and foundation
CO 3:	To know about the types and fundamental aspects of construction in stone & brick i.e masonry, openings
CO 4 :	To be able to use composite materials in a structure.
CO 5 :	To be aware of the properties and applications of the various materials

BAR 104 GRAPHIC SKILLS – I

Course Code: BAR 104

Credit Units: 02

L-0 ST-0 P-4

Teaching hours: 04

COURSE OUTCOME:

CO 1	Understand and remember the fundamentals of drafting
CO 2	Understand the fundamentals of geometry
CO 3:	Understand the principle and different types of projections and views
CO 4 :	Learning the techniques of surface development
CO 5	Produce presentations on all the four cognitive learning outcomes.

BAR 105 HISTORY OF BUILT ENVIRONMENT

Course Code: BAR 105

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Analyze and evaluate the building styles of different eras and the strategic developments of forms and structures
CO 2 :	Examine the developments in the use of materials with different eras.
CO 3:	Analyze the spaces proportions, and sections, motifs of typologies of buildings such as communal hall, residences etc.

BAR106 ARCHITECTURAL WORKSHOP

Course Code: BAR 106

Credit Units: 01

L/0-T/0-P/2

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	To remember different tools used in carpentry, masonry and surface painting
CO 2 :	To understand the technique of applying construction material such as brick, cement, wood, stone and its testing.
CO 3:	To construct different building components like dome, arch and wall with various typologies.
CO 4 :	To create new forms and structures using the learned techniques.

BAR 107 THEORY OF DESIGN

Course Code: BAR 107

Credit Units: 02

L/2-ST/0-P/0

Teaching Hours : 02

Course Objective

CO 1 :	To Illustrate The Knowledge of various principles elements design.
CO 2 :	To critically analyse the 2D & 3D compositions.
CO 3:	To analyse the differences between systematic and random design approach though developing understanding of design thinking.

BAR 108 VISUAL ART AND APPRECIATION

Course Code: BAR 108 Credit Units: 01 L/0-ST/0-P/2 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Understand and remember the fundamentals of drafting
CO 2 :	Understand the fundamentals of geometry
CO 3:	Understand the principle and different types of projections and views
CO 4 :	Learning the techniques of surface development
CO 5 :	Produce presentations on all the four cognitive learning outcomes.

BAR 109 PRESENTATION TECHNIQUES

Course Code: BAR 109 Credit Units: 01 L/0-ST/0-P/2 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Develop the understanding of various most relevant Presentation Techniques for the purpose of Design Project.
CO 2 :	Develop the ability of lateral thinking required for visualizing the balance between various building materials & elements.
CO 3:	Create better design solutions in an effective way by enhancing the observation and learning skills through existing projects.

AANANDAM-I

Course Code: AND 001 Course Type: Compulsory Credit Units: 02 Credit Units: 02

COURSE OUTCOME:

CO 1 :	Awareness and empathy regarding community issues
CO 2 :	Interaction with the community and impact on society
CO 3:	Interaction with mentor and development of Student teacher relationship
CO 4:	Interaction among students, enlarge social network
CO 5:	Cooperative and Communication skills and leadership qualities
CO 6:	Critical thinking, Confidence and Efficiency

BCS 101 ENGLISH

Course Code: BCS101

Credit Units: 01

Teaching hours: 01

COURSE OUTCOME:

The course is intended to give a foundation of English Language. The literary texts are indented to help students to inculcate creative & aesthetic sensitivity and critical faculty through comprehension, appreciation and analysis of the prescribed literary texts. It will also help them to respond form different perspectives.

BSS 105 BEHAVIOURAL SCIENCE - I (UNDERSTANDING SELF FOR EFFECTIVENESS)

Course Code: BSS105

CreditUnits: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) should be able to:

1. Demonstrate awareness of self and the process of self-exploration.
2. Demonstrate knowledge of strategies for developing a healthy self-esteem.
3. Recognize the importance of attitudes and its effect on personality.
4. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FOREIGN LANGUAGE :Foreign Language French (Technology)

Semester 1 Course Code: FLT 101/111 (Tech French)

Credit Units: 02

COURSE OUTCOME:

- Students will honeBasic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts.
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

- To tell ones name and to spell it
- To understand the French keyboard
- To wish/welcome/identify/name someone
- To present oneself and someone else
- To fill a form
- To ask for information
- To understand and ask simple questions

Semester 1: **FLG 101/111 Foreign Language German**
Course Code: FLG 101/111 **Credit units : 02**

COURSE OUTCOMES:

- Students will honeBasic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

Semester 1: **FLS 101/111 FOREIGN LANGUAGE SPANISH**
Course Code: FLS 101/111 **Credit units : 02**

COURSE OUTCOMES:

- Students will honeBasic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

Semester I **FLC 101/111FOREIGN LANGUAGECHINESE**
Course Code: FLC- 101/111 **Credit Units : 02**

COURSE OUTCOME:

- Students will honeBasic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

BAR 201 DESIGN – II

Course Code: BAR 201
06

Credit Units: 09

L/0-ST/6-P/0

Teaching hours:

COURSE OUTCOME:

CO 1 :	Analyse functional spaces and the issues like clearances, lighting and ventilation, using the anthropometric study approach and work out Minimum and optimum areas for various functions.
CO 2 :	Design according to the human considerations like, privacy, convenience, comfort, etc
CO 3 :	Investigate, Compare and Infer existing architectural spaces through their measured drawings, models and photographs
CO 4 :	Conclude and Recommend criteria to Justify/Decide basis for architecture design proposal
CO 5 :	Develop, Propose and Draw the Design for a given architectural situation and Communicate through conventional architectural representations

BAR 202 MATERIALS AND CONSTRUCTION TECHNOLOGY - II

Course Code: BAR 102

Credit Units: 03

L/1-ST/1-P/1

Teaching hours: 03

COURSE OUTCOME:

CO 1 :	Distinguish between various type of wood though analysing their physical and chemical properties. Evaluate Cross sectional detail of a log Properties of Timber; Processing of Timber Evaluate and Identify use of timber & timber products in buildings
CO 2 :	Design according to the human considerations like, privacy, convenience, comfort, etc
CO 3 :	Recognise the different types of openings made up of timber in day to day life & understand the construction techniques of making wooden doors and windows. Develop understanding regarding the different types of carpentry joints & their specific uses and evaluate the best suitable joint in openings. Understand the construction techniques of making wooden staircase. Understand the various types of wooden trusses, their different components and construction techniques of making wooden trusses.
CO 4 :	Evaluating and Analysing with the market surveys, case examples or literature studies available.

CO 5:	Create details for constructing a wooden staircase. After evaluating and analysing various wooden joints , Students will create roof trusses, staircases, windows or door.
-------	---

BAR 203 STRUCTURAL DESIGN & SYSTEM - II

Course Code: BAR 203 Credit Units: 02 L/2-ST/0-P/0 Teaching hours: 02

Course Learning Objective

CO 1 :	Understand & identify the properties of the constituent materials of concrete Identify and demonstrate the behaviour of fresh and hardened concrete. Design concrete mixes as per IS and ACI codes Identify,describe and carry out the main laboratory tests on concrete constituents.
CO 2 :	Demonstrate recent advancements in concreting materials and procedures. Investigate the properties & characteristics of any soil type at any construction site using advanced methods
CO 3:	Develop his /her interest in geotechnical engineering designing field

BAR 204 GRAPHIC SKILLS – II

Course Code: BAR 204 Credit Units: 02 L/0 ST/0 P/4 Teaching hours: 04

COURSE OUTCOME:

CO 1 :	Understand and remember the fundamentals of drafting
CO 2 :	Understand the fundamentals of geometry Understand the principle and different types of projections and views
CO 3:	Produce presentations on all the four cognitive learning outcomes.

BAR 205 HISTORY OF ARCHITECTURE-I

Course Code: BAR 205

Credit Units: 02 L/2-ST/0-P/0

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Analyze and evaluate the building styles of different eras and the strategic developments of forms and structures
CO 2 :	Examine the developments in the use of materials with different eras.

BAR 206 BUILDING SERVICES -I

Course Code: BAR 206

Credit Units: 02

L/2-T/0-P/0

Teaching

hours: 02

COURSE OUTCOME:

CO 1 :	Understanding the scope, importance and ethics of the field of building services. Appreciate the requirements of different types of building services. Learn the concepts of the building services systems
CO 2 :	To evaluate the quantity and quality of services to be provided.
CO 3:	Identify the various appliances, fixtures and appurtenances. Learn about the popular techniques of the building sciences.
CO 4	Study about the thumb rules and the byelaws of the services and learn how to apply the knowledge while designing the layout of the buildings and its execution
CO 5	Develop reports and assignments containing write-ups, and sketches to express their understanding of building services during lectures and site visits.

AND 002 AANANDAM-II

Course Code: AND 002

Course Type: Compulsory

Credit Units: 02

COURSE OUTCOME

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society

- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

EVS 201 ENVIRONMENTSCIENCE

Course Code: EVS 201

Credit Unit: 04

Teaching hours: 04

Course Objective:

The term environment is used to describe, in the aggregate, all the external forces, influences and conditions, which affect the life, nature, behavior and the growth, development and maturity of living organisms. At present a great number of environment issues, have grown in size and complexity day by day, threatening the survival of mankind on earth. A study of environmental studies is quite essential in all types of environmental sciences, environmental engineering and industrial management. The objective of environmental studies is to enlighten the masses about the importance of the protection and conservation of our environment and control of human activities which has an adverse effect on

BCS 201 ENGLISH

Course Name	Course Code	LTP	Credit	Semester
General English	BCS201	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Participate in conversation and in small- and whole-group discussion
CO 2	Explore and use English as medium of communication in real life situation
CO 3	Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
CO 4	Identify features of a reading textbook and utilize them as needed

CO 5	Prepare and deliver organized presentations in small groups and to whole class
CO 6	Apply sentence mechanics and master spelling of high frequency words

BEHAVIOURAL SCIENCE - II (PROBLEM SOLVING AND CREATIVE THINKING)

Course Code: BSS 205

CreditUnits: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) would be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hindrance to problem solving processes.
3. Analyze the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FLT 201/211 FOREIGN LANGUAGE FRENCH (TECHNICAL)

Semester 2

Course Code: FLT 201/ 211

Credit Units: 02

COURSE OUTCOMES (COs)

- Students will honeBasic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc
- To speak about the activities and hobbies
- To express ones tastes
- To excuse oneself
- To understand a mail
- To ask ones way
- To indicate the direction
- To express a wish
- To ask for information

- To give an order or a suggestion
- To read a plan of metro and RER.

FLG 201/ 211 FOREIGN LANGUAGE GERMAN

Semester 2:

Course Code: FLG 201/211

Credit units : 02

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

FLS 201/211 FOREIGN LANGUAGE SPANISH

Semester 2: Course Code: FLS 201/211 Credit units : 02

COURSE OUTCOMES:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.
- To enhance all five skills of the language: Reading, Writing, Listening, Interacting and speaking.
- Adjectives to describe people
- To talk about locations and places.
- To be able to form basic questions
- Counting till 100
 - To be able to speak about daily Routine and verbs of daily usage both regular & irregular verbs.

FLC 201/ 211 FOREIGN LANGUAGE CHINESE

Semester - II

Course Code: 201/211

Credit Units: 02

COURSE OUTCOMES:

On the completion of second semester the students will be able to:

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters.
- Write Chinese Characters and sentences.
- Speak Chinese dialogues with correct pronunciation & tone.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Manipulate basic grammatical structures such as questions type (2), 有 sentence, verbal predicate, 们, numeration, time etc.
- Master and use most essential vocabulary items of day to day use; approx 110 Characters including 50 characters of HSK level -I.
- Understand Sino-Indian Relations.

MTARC204GRAPHICSKILLS-I

CourseCode:MTARC204

**CreditUnits:03
hours:03**

Teaching

COURSE OUTCOME:

CO 1	Understand and remember the fundamentals of drafting
CO 2	Understand the fundamentals of geometry
CO 3:	Understand the principle and different types of projections and views
CO 4 :	Learning the techniques of surface development
CO 5	Produce presentations on all the four cognitive learning outcomes.

BAR 301 DESIGN – III

Course Code: BAR 301

Credit Units: 09

L/0-ST/6-P/0

Teaching hours: 06

COURSE OUTCOME:

CO 1 :	Analyse functional spaces and the issues like clearances, lighting and ventilation, using the anthropometric study approach and work out Minimum and optimum areas for various functions.
CO 2 :	Design according to the human considerations like, privacy, convenience, comfort, etc
CO 3 :	Investigate, Compare and Inferexisting architectural spaces through their measured drawings,

	models and photographs
CO 4 :	Conclude and Recommend criteria to Justify/Decide basis for architecture design proposal
CO 5:	Develop, Propose and Draw the Design for a given architectural situation and Communicate through conventional architectural representations

BAR 302 MATERIALS & CONSTRUCTION TECHNOLOGY – III

Course Code: BAR 302 Credit Units: 03 L/1-ST/1-P/1 Teaching hours: 03

COURSE OUTCOME:

CO 1 :	To define basic building elements.
CO 2 :	To Recognize the various types of brick and stone masonry both in superstructure and foundation
CO 3 :	To know about the types and fundamental aspects of construction in stone & brick i.e masonry, openings.
CO 4 :	To be able to use composite materials in a structure.
CO 5:	To be aware of the properties and applications of the various materials

-

BAR 303 STRUCTURAL DESIGN & SYSTEM- III

Course Code: BAR 303 Credit Units: 02 L/0-ST/0-P/4 Teaching hours: 04

COURSE OUTCOME:

CO 1 :	Analyse& evaluate the shear force & bending moment for beam element under the various loading & support conditions by using different methods of structural analysis.
CO 2 :	Examine the structure by using indeterminacy/determinacy concept from the stability point of view of structure.
CO 3 :	Analyse the shear force & bending moment diagram by using moment distribution method slope deflection method & strain energy method under the various loading & support condition for the beam element.
CO 4 :	Understanding the loading conditions of arches by using two & three hinged arches concept.

BAR 304 GRAPHIC SKILLS– III (Computer aided)

Course Code: BAR 304 Credit Units: 02 L/0-ST/0-P/4 Teaching hours: 04

COURSE OUTCOME:

CO 1 :	Analyse& produce manual drawings of interpenetration of different solids in different positions and at different angles.
CO 2 :	Understand the importance and use of perspective drawing in architecture; Anatomy of perspective-cone of vision, station Points and produce one point and two point perspective drawings manually through plan method and grid method.
CO 3 :	Calculate and draw sciography, using different grades of shade and shadow in elevation and perspective views.
CO 4 :	Apply the presentation techniques using different mediums such as color/ ink, as per light position. Also understand the use of basic plantation, vehicles, human beings etc to introduce scale to building perspectives.

BAR 305 HISTORY OF ARCHITECTURE- II

Course Code: BAR 305 Credit Units: 02 L/2-ST/0-P/0 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Analyse and evaluate the building styles of different eras and the strategic developments of forms and structures
CO 2 :	Synchronize the construction activities with installation of building services. Select the suitable system for particular requirements of buildings.
CO 3 :	Understanding the importance of sound energy and its impact on building design and also able to control noise within the interior and from exterior sources.

BAR 306 BUILDING SERVICES- II

Course Code: BAR 306

Credit Units: 02

L/2-ST/0-P/0

Teaching

hours: 02

COURSE OUTCOME:

CO 1 :	Understand the basic of sound energy, process and are able to manage building acoustical services provisions in construction sites.
CO 2 :	Examine the developments in the use of materials with different eras
CO 3 :	Analyse the spaces proportions, and sections, motifs of typologies of buildings such as communal hall, residences etc.

BAR 307 SURVEYING AND LEVELLING

Course Code: BAR 307

Credit Units: 01L/0-T/0-P/2

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Carry out temporary adjustment of survey instruments by standard methods: to perform temporary adjustment of survey instruments with concepts of permanent adjustments.
CO 2 :	Conduct linear measurements using survey instruments and tools:- to perform line measurements using conventional and modern methods.
CO 3 :	Carry out levelling and cross sectioning survey:- to conduct and complete cross - sectional surveys and levelling works across multiple work environments.
CO 4 :	Carry out topographic survey: to conduct a topographical survey of an area and prepare resulting contour maps.

BAR 308 PHOTOGRAPHY

Course Code: BAR 308

Credit Units: 01

L/0-ST/0-P/2

Teaching hours: 02

COURSE OUTCOME:

CO 1	A comprehensive knowledge and understanding of light, exposure and colour , and their application in architectural lighting
------	---

CO 2	An advanced understanding of theories of photographic composition, balance and weight
CO 3	A knowledge of the history of architectural photography, with an awareness of the contextual boundaries within, and outside of, the genre.
CO 4	An advanced ability to use film and digital cameras to capture and create outstanding photographs of architecture, form and space
CO 5	A comprehensive knowledge and understanding of digital photographic image manipulation and processing techniques using industry standard software programmes

BAR 309 VERNACULAR ARCHITECTURE

Course Code: BAR 309

Credit Units: 01

L/0-ST/0-P/2

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	To understand how the contexts of a region have an impact on vernacular architectural forms.
CO 2 :	To explore various traditional materials and construction techniques used in vernacular architectural forms.
CO 3 :	To acquire knowledge on traditional materials and construction techniques which can be used in the design of built spaces in the modern context.
CO 4 :	Understanding the impact of context of a region over architectural forms and expressions will lead to sensible and context specific and sensitive design solutions.

BAR310 MODELMAKING WORKSHOP

Course Code: BAR 310

Credit Units: 01

L/0-ST/0-P/2

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	To remember different tools used in carpentry, masonry and surface painting
CO 2 :	To understand the technique of applying construction material such as brick, cement, wood, stone and its testing.

CO 3:	To construct different building components like dome, arch and wall with various typologies.
CO 4 :	To create new forms and structures using the learned techniques.

AND 003 AANANDAM-III

Course Code: **AND 003**

Course Type: **Compulsory**

Credit Units: **02**

COURSE OUTCOMES:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

BCS 301 COMMUNICATION SKILLS - I

Course Code: **BCS 301**

Credit Units: **01**

Teaching hours: **01**

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 301	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Inculcating creative thinking skills
CO 2	Construct and showcase their communication skills in a creative manner.
CO 3	Comprehending and demonstrating ways of self-introduction
CO 4	Outlining and illustrating presentation Skills

FLG 301/311 FOREIGN LANGUAGE GERMAN

Semester 3: Course Code: **FLG 301/311**

Credit units : **02**

Course Objective:

After successful completion of this semester, students will be able to:

- describe furniture in a room.
- ask question related to time like when, from when etc.
- tell time (formal and informal)
- how to make calls on phone
- can excuse for cancel appointments.
- speak about their daily routine.

FLS 301/311 FOREIGN LANGUAGE SPANISH

Semester 3: Course Code: FLS 301/311 Credit units : 02

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.
 - To enable the students to talk about a place like, class room, market, neighborhood and location of thing with the use of prepositions.
 - To talk about one's likes/dislikes, how one is feeling, to express opinions, pain and illness.
 - Time and date
 - Speaking about prices/currency/ market and quantity.
 - Counting above 100,
 - To discuss near future plans

FLC 301/ 311 FOREIGN LANGUAGE CHINESE

Semester - III

Course Code: FLC- 301/311

Credit Units: 02

Course Objectives:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.

Students will be able to communicate in small sentences in oral, self introduction, family description etc

On the completion of third semester the students will be able to attain the proficiency of HSK-I and they will be able to

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters given in the text.
- Write Chinese Characters and sentences.
- Speak Chinese dialogues from various fields of day to day life.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Carry out conversation in the target language.
- Manipulate basic grammatical structures such as: 在, 是, 有 sentence, etc.
- Master and use most essential vocabulary items of day to day use and programme specific vocabulary; approx 100 Characters including 50 characters of HSK level -I.

MTARC304 GRAPHIC SKILLS – II

CourseCode:MTARC304

CreditUnits:03

Teaching hours:03

COURSE OUTCOME:

CO 1 :	Understand and remember the fundamentals of drafting
CO 2 :	Understand the fundamentals of geometry Understand the principle and different types of projections and views
CO 3:	Produce presentations on all the four cognitive learning outcomes.

BAR 401 DESIGN – IV

Course Code: BAR 401

Credit Units: 09

L/0-ST/6-P/0

Teaching hours: 06

COURSE OUTCOME

CO 1 :	Investigate the nature of the problem by analyzing the project brief, data collected from literature studies, site visits, case studies and other specific studies.
CO 2 :	Create design concepts for the given project based on the developed understanding of the project.
CO 3 :	Apply the learning of previous semesters and other allied subjects of the semester
CO 4 :	Develop the architectural project in terms of architectural drawings, models, etc. with all the given requirements.

BAR 402 MATERIALS & CONSTRUCTION TECHNOLOGY – IV
Course Code: BAR 402 Credit Units: 03 L/1-ST/1-P/1 Teaching hours: 03
COURSE OUTCOME

CO 1	To illustrate the application of metal as construction material.
CO 2	To demonstrate the various properties & characteristics of basic building materials such as steel & aluminum.
CO 3	To demonstrate the application of steel and aluminum in actual building construction.
CO 4	To elucidate the knowledge of various construction details of foundations, staircase & door window built in metal.
CO 5	To indicate knowledge of steel trusses.

BAR 403 STRUCTURAL DESIGN & SYSTEM- IV
Course Code: BAR 403 Credit Units: 02 L/2-ST/0-P/0 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Understand & identify the properties of the constituent materials of concrete
CO 2 :	Identify and demonstrate the behaviour of fresh and hardened concrete.
CO 3:	Design concrete mixes as per IS and ACI codes
CO 4 :	Identify, describe and carry out the main laboratory tests on concrete constituents.
CO 5 :	Demonstrate recent advancements in concreting materials and procedures.
CO 6	Investigate the properties & characteristics of any soil type at any construction site using advanced methods.
CO 7	Create his own judgement regarding the analysis method required for problems regarding Stability of Soil Structures.
CO 8	Apply these methods to the real-life structures
CO 9	Develop his / her interest in geotechnical engineering designing field

BAR 404 GRAPHICS SKILLS – IV (Computer Aided)

Course Code: BAR 404 Credit Units: 02 L/0-ST/0-P/4 Teaching hours: 04

COURSE OUTCOME

CO 1	Remember various tools or shorthand commands used in SketchUp, AutoCAD-3D, V-Ray.
------	---

CO 2	Understand to develop higher-quality, more accurate architectural designs, and models; use tools specifically built to support 3D design- creation- rendering- animation based application.
CO 3	Apply the knowledge of various aspects of building Services & Construction techniques into 3D designs.
CO 4	Analyse the importance of 3Ddesign- creation- rendering- animation based application in the field of Architecture and construction industry.
CO 5	Evaluate 3D Modelling based design on critical thinking and problem solving skills.
CO 6	Create 3D design models of an Architectural Project

BAR 405 HISTORY OF ARCHITECTURE

Course Code: BAR 405

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Critically evaluate the development of architecture style in terms of its spaces .
CO 2	Classify various architecture style by there elements and their evolution in terms of construction technology, building materials and forms over the period.
CO 3	Formulate various stages of architecture movements in terms its style and evolution of its elements
CO 4	Create the relevance and utility of various local materials used by various architects in different regions of the world.

BAR 406 BUILDING SERVICES-III (Acoustical System)

Course Code: BAR 406

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Understand the process and are able to manage building acoustical services provisions in construction sites.
CO 2	Synchronize the construction activities with installation of building services.
CO 3	Select the suitable system for particular requirements of buildings

CO 4	Understanding the importance of sound energy and its impact on building design and also able to control noise within the interior and from exterior sources.
CO 5	Plan and able to design and read acoustical layout required for different types of buildings

BAR 408 ARCHITECTURAL CLIMATOLOGY

Course Code: BAR 408 Credit Units: 02 L/1-T/0-P/2 Teaching hours: 03

COURSE OUTCOME

CO 1	Understand the factors that determine microclimate of a region and shape the site - climate.
CO 2	Predict the climatic zone of a given site on the basis of climatic data and establish the characteristics of the suitable architectural typology for that zone (Knowledge Application for Site Analysis)
CO 3	Understand thermal comfort conditions required inside built environment
CO 4	Understand heat exchange process in a building
CO 5	Devise passive control of heat gain and loss in a building through appropriate architectural design solutions for different climatic zones to achieve energy conservation.

BAR 409 BAMBOO ARCHITECTURE

Course Code: BAR 409 Credit Units: 02L/2-T/0-P/0 Teaching hours: 02

COURSE OUTCOME

CO 1	to understand the benefits of building with bamboo and remember the various application and joints in bamboo.
CO 2	importance of sustainably growing and harvesting bamboo and how to build structures to last a lifetime with best practice for crafting with bamboo.
CO 3	Understand and analyze the various treatment and construction method of bamboo
CO 4	Analyze and interpret a range of innovative structural systems to help make it easy for us to begin designing with bamboo.

CO 5	To create designs that are functional, beautiful, and bring nature into the built environment.
------	--

BAR 410 ARCHITECTURE DOCUMENTATION

Course Code: BAR 410

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Understand the qualities of building spaces and their elements
CO 2	Learn the methods involved in documentation like scaled drawings, photographic documentations, mapping, etc
CO 3	Analyze the buildings visually and record the context and need
CO 4	Evaluating and assessing the building properties and terminologies
CO 5	Compile and assess the recordings

BAR411 BARRIER FREE ARCHITECTURE

Course Code: BAR 411

Credit Units: 02L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	To learn about Importance of Barrier free Architecture and uses in various types of buildings.
CO 2	To know standards and norms for the Barrier free design.
CO 3	To understand the importance of Barrier free design using Case studies of Design
CO 4	To Evaluate existing public building and residential building using norms and Standards
CO 5	To Redesign existing public building using norms and Standards

AND 004 AANANDAM-IV

Course Code: **AND 004** Course Type: **Compulsory**

Credit Units: **02**

COURSE OUTCOMES:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

BCS 401 COMMUNICATION SKILLS II

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS401	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Identify steps to professional communication
CO 2	Identify the key components of meeting, agendas and meeting minutes
CO 3	Understand the key skills and behaviors required to facilitate a group discussion/presentation
CO 4	Polish current affairs & rapport building

Behavioural Science-IV (RELATIONSHIP MANAGEMENT)

Course Code: **BSS 405**

Credit Units: **01**

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) would be able to:

1. Identify the basis of interpersonal relationship.
2. Describe the importance of interpersonal relationship and bridging individual differences.
3. Recognize the development and strategies for effective interpersonal relationship.

Explain and apply the theories of relationship concepts of impression management. **Course Objective:**

To understand the basis of interpersonal relationship

To understand various communication style

To learn the strategies for effective interpersonal relationship

FOREIGN LANGUAGE 401 FRENCH - IV

Semester 4 Course Code: FLT 401/411 (Tech French)

Credit Units: 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

- To do the shopping
- To ask and express one's needs
- To present one's eating habits
- To understand a label
- To ask the price
- To order at the restaurant
- To organise a meeting
- To propose to someone to do an activity
- To understand the advertisement of a conference
- To understand the names of different stations
- To speak about ones schedule
- To express one's professional wish
- To formulate a project
- To read a notice board

FLG 401/ 411 FOREIGN LANGUAGE GERMAN

Semester 4: Course Code: FLG 401/411

Credit units : 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

After successful completion of this semester, students will be able to:

- talk about different professions
- express positive and negative aspect of different professions.
- talk about daily routine of a job
- enquire about direction.
- use preposition in sentences.
- understand the visiting cards etc.

FLS 401/ 411 FOREIGN LANGUAGE SPANISH

Semester 4:

Course Code: FLS 401/411

Credit units : 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To talk about relations
- To express obligation
- To enquire about direction
- To be able to describe your locality
- Telephonic conversation etiquettes
- Dialogue between two friends/sales man and client etc.

FLC 401/411 FOREIGN LANGUAGE CHINESE

Semester - IV

Course Code: FLC- 401/411

Credit Units: 02

Course Objectives:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

On the completion of Fourth semester the students will be able to consolidate their proficiency of HSK-I and will be able to

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters given in the text.
- Write Chinese Characters, sentences and small paragraphs.
- Speak Chinese dialogues from various fields of day to day life.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Carry out conversation in the target language.
- Manipulate basic grammatical structures such as: 疑问代词.etc.
- Master and use most essential vocabulary items of day to day use and office related vocabulary; approx 70 Characters including 50 characters of HSK level –II
- Refer Chinese dictionaries.
- Translate a Chinese paragraph with the help of dictionaries and translation software.

MTARC404 GRAPHIC SKILLS– III (Computer aided)

CourseCode:MTARC 404

CreditUnits:03

Teaching hours:03

COURSE OUTCOME:

CO 1 :	Analyse& produce manual drawings of interpenetration of different solids in different positions and at different angles.
CO 2 :	Understand the importance and use of perspective drawing in architecture; Anatomy of perspective-cone of vision, station Points and produce one point and two point perspective drawings manually through plan method and grid method.
CO 3 :	Calculate and draw sciography, using different grades of shade and shadow in elevation and perspective views.
CO 4 :	Apply the presentation techniques using different mediums such as color/ ink, as per light position. Also understand the use of basic plantation, vehicles, human beings etc to introduce scale to building perspectives.

BAR 501 DESIGN – V

Course Code: BAR 501

Credit Units: 12

L/0-ST/8-P/0

Teaching hours: 08

COURSE OUTCOME

CO 1	To Recognizing the previous semester learning outcomes like anthropometric, ergonomics, space a,locations, site analysis and active and passive design consideration for the different climatic Zones
CO 2	To implementing the basics of design problem and analysis the different similar projects through Literature Studies, site visit, case studies, and other relevant studies.
CO 3	To critique the existing knowledge and attributed knowledge through student self learning and standardize them for further creation
CO 4	To produce given project based on to develop the architectural project in terms of architectural drawings, models, etc.
CO 5	To attributing the design centric theoretical knowledge and practical knowledge like case studies of the building weather applicable or not.

BAR 502 MATERIALS & CONSTRUCTION TECHNOLOGY – V

Course Code: BAR 502

Credit Units: 03

L/1-T/1-P/1

Teaching hours: 03

COURSE OUTCOME

CO 1	To remember properties & application of different finishing materials like ACP, PVC, Gypsum, Glass, Fiberglass, Glass bricks, Metals, Stone, Ceramics, Exposed brick work, Paints, POP, Polish, and Varnishes etc.
CO 2	To understand the criteria of applying latest materials & construction details of different building component like flooring, false ceiling, false partition and special doors.
CO 3	To apply visual & textural properties of latest finishes & hardware's in building interiors and exterior.
CO 4	To evolve innovative designs of Interior & exterior components like flooring, false ceiling, false partition and special doors.
CO 5	To prepare construction details of designed components.

BAR 503 STRUCTURAL DESIGN & SYSTEM- V

Course Code: BAR 503

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	To impart the knowledge of structural design of a reinforced concrete structure using a working stress method.
CO 2	To learn to design RCC beams, columns, slabs as per codal provisions by using a working stress method.
CO 3	To understand the principles involved in analysis and design of reinforced concrete structures.
CO 4	To impart the knowledge of yield line theory

BAR 504 GRAPHICS SKILLS – V (Computer aided)

Course Code: BAR 504

Credit Units: 02

L/0-ST/0-P/4

Teaching hours: 04

COURSE OUTCOME

CO 1	To remember various tools or shorthand commands used in Autodesk Revit Architecture, 3Ds Max, Rhino and grasshopper.
CO 2	Understand to develop higher-quality, more accurate architectural designs and models; use tools specifically built to support Building Information Modelling workflows.
CO 3	To apply the knowledge of Structural, Mechanical, Electrical, Plumbing, Communications, Security, Fire Protection system into BIM-based designs.
CO 4	To analyse the importance of Revit Architecture in the field of Architecture and construction industry.
CO 5	To evaluate Building Information Models based on critical thinking and problem solving skills.
CO 6	To create Building information modelling solutions and parametric models.

BAR 505 BUILDING BY LAWS, CODES & PRACTICES

Course Code: BAR 505

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Importance of the Development controls, building byelaws and codes and practices as applicable in the country.
CO 2	To be able to Translate the building byelaws and codes to the architectural design in BAR 501.
CO 3	To analyse the effect of building byelaws on the building design and the residents
CO 4	Analyse and apprise the benefit of application of the building byelaws and the codes

BAR 506 BUILDING SERVICES- IV

Course Code: BAR 506

Credit Units: 02

L/2-ST/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	To analyse the importance of fire safety in a building.
CO 2	To understand the different aspects of materials in terms of fire safety.

CO 3	To accumulate awareness of fire safety norms
CO 4	To be able to do comparison between different fire detection systems and cctv equipment.
CO 5	To design a fire fighting and cctv system for a building.

BAR 507 BUILDING APPRECIATION

Course Code: BAR 507

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	To introduce students to critical appreciation through informal discussion & site visits and to analyse the evolution of building and its necessity.
CO 2	To understand the critical appreciation of various building forms, building textures and buildings.
CO 3	Analyze, interpret and respond to architectural examples done by architects from past and present.
CO 4	Identify and describe appropriate systematic and scientific strategies to examine historical built forms and methods.
CO 5	Develop critical thinking skills, ability to reflect and explain the meanings of architectural works.

BAR 508 ENERGY CONSERVATION ARCHITECTURE

Course Code: BAR 508

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	demonstrate a good ability to calculate the energy balance of buildings
CO 2	evaluate different opportunities to save energy with measures regarding both building technology and building services engineering in both new and existing buildings
CO 3	assess whether there is a potential conflict between energy conservation and indoor climate for different energy saving measures
CO 4	analyze and interpret results both critically and independently regarding energy and indoor climate in buildings based on values from both calculations and measurements

CO 5	demonstrate a good ability to work independently on investigating energy and indoor climate issues for buildings and to present the results both orally and in writing in well-prepared technical reports.
------	--

BAR 509 DIGITAL ARCHITECTURE

Course Code: BAR 509 Credit Units: 02 L/2-T/0-P/0 Teaching hours: 02

COURSE OUTCOME

CO 1	To understand the difference between conventional design approach and Digital design process.
CO 2	To understand use of different software, digital design tools and techniques for different-different digital design processes.
CO 3	To apply digital design tools and techniques for the development of complex products, building interiors and exterior.
CO 4	To evolve innovative digital architectural components by using logical and mathematical model.
CO 5	To create physical structure evolved by digital design process.

AND 005 AANANDAM-V

Course Code: AND 005 Credit Units: 02L/0-ST/0-P/4 Teaching hours: 04

Course Objectives:

The objective of this course is to make students aware and empathetic about community issues and to increase interaction among students as well as with the community to enlarge social network.

Course Contents:

Directions for Students

1. Students should do at least one individual act of goodness each day and Record this act in a dedicated diary/register
2. Students should share this dedicated diary/register in Aanandam period with the mentor and share experience with the class.
3. Students must take up one Community Service Project in a group of 8-12 students.
4. The students must take photographs to document their work
5. The students can obtain certificate from the NGO/ Government Agency they are working with for Group Community Service Project
6. The students may submit newspaper cuttings
7. The students must participate in the Aanandam Day by displaying charts of their Group Community Service Project
8. Students must submit Group Community Service Project Report at the end of semester.

BCS 501 COMMUNICATION SKILLS - III

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS501	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CO 3	Demonstrate proficiency in the use of written communication.
CO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 504 BEHAVIOURAL SCIENCE V (Group Dynamics and Team Building)

Course Code: BSS 501

Credit Units: 01

Teaching hours: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them.

FLF 501 FOREIGN LANGUAGE FRENCH - V

Semester 5 Course Code: FLT 501/511 (Tech French)

Credit Units: 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To understand the TP
- To understand an experiment
- To read the chemical equations

- To identify the chemical formulas
- To understand the instructions of a project
- To express a desire
- To understand a testimony
- To understand and read an exercise of mathematics
- Read and note the equation

FLG 501 GERMAN - V

Course Code: FLG 501/511

Credit Units: 02

Teaching hours: 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

After successful completion of this semester, students will be able to:

- tell where they work and live
- tell location of their offices and house
- explain, how they reach their work place
- ask and tell the location of thing or person in a house like behind, in front of etc.
- describe the office things like printer, files etc

FLS 501 SPANISH - V

Semester 5: Course Code: FLS 501/511

Credit units : 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To talk about a pre decided plan
- To talk about a plan yet to materialize
- To propose a plan
- To talk about what they have done today/during vacations etc.
- Reading texts about Spanish festivals
- Writing composition about Festivals

Semester - V Course Code: FLC- 501/511 Credit Units: 02

Course Objectives:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

On the completion of Fifth semester the students will be able to

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters given in the text.
- Write Chinese Characters and sentences and small paragraphs.
- Speak Chinese dialogues from various fields of day to day life.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Carry out conversation in the target language based on the topics learnt.
- Manipulate basic grammatical structures.
- Master and use most essential vocabulary items of day to day use, programme specific and internet related vocabulary; approx80 Characters including 50 characters of HSK level –II sour....etc.
- Type Chinese document.
- Express their opinion and ask opinion of others in Chinese

MTARC504 GRAPHICS SKILLS – IV (Computer Aided)

CourseCode:MTARC504

CreditUnits:03

Teachinghours:03

Course Objective (CO)

“suiran ... danshi....”

–

..etc.

CO1	Remember various tools or short hand commands used in SketchUp, AutoCAD-3D, V-Ray.
CO2	Understand to develop high er-quality, more accurate architectural designs, and models; use tools specifically built to support 3D design-creation-rendering-animation based application. Apply the knowledge of various aspects of building Services & Construction techniques into 3Ddesigns.
CO3	Apply the knowledge of various aspects of building Services & Construction techniques into 3D designs. <small>“huozhe” “haishi”</small>
CO4	Analyze the importance of 3D design creation rendering animation-based application in the field of Architecture and construction industry. –
CO5	Evaluate 3D Modelling based design on critical thinking and problem-solving skills. “de”.
CO6	Create3DdesignmodelsofanArchitecturalProject.

BAR601 Design- VI

Course Code: BAR 601 Credit Units: 12

L/0-ST/8-P/0

Teaching hours: 08

COURSE OUTCOME

CO 1	Understanding the scope, importance and need of the design. Learn the principles, methods, process, and concepts of design. Appreciate the requirements of design guidelines.
CO 2	Evaluate architectural design concepts' applicability in various contexts by studying cases.
CO 3	Apply the learning of the previous semester and theoretical or practical design to evolve a unique concept for a real architectural design project.
CO 4	Evolve specific architectural design guidelines, policies, and recommendations for the project.
CO 5	Create a design proposal for the given project in terms of presentation drawings, 3D model; 3D views, etc., as per the given requirements.

BAR 602 MATERIALS & CONSTRUCTION TECHNOLOGY – VI

Course Code: BAR 602

Credit Units: 03

L/1-ST/1-P/1

Teaching hours: 03

COURSE OUTCOME

CO 1	Understand the design intent of the architect.
CO 2	Be able to read construction drawings.
CO 3	Communicate with consultants and vendors.
CO 4	Develop and convert the design intent into a set of good for construction drawings.

BAR 603 STRUCTURAL DESIGN & SYSTEM- VI

Course Code: BAR 603

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Investigate the tensile strength and design capacity of various steel elements in structures.
------	---

CO 2	Create his/her own judgement regarding analysis method required for specific type of problem
CO 3	Develop his/her interest in design of steel structures field.
CO 4	Apply the design methods to understand the mechanism of existing structures.

BAR 604 QUANTITY SURVEYING & SPECIFICATIONS

Course Code: BAR 604

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Prepare quantity estimates for building structures as per the specifications
CO 2	Draft detailed specifications and work out rate analysis for all works related to building structures.
CO 3	Prepare cost estimate and valuation of construction works.
CO 4	Prepare tenders and contract documents. Evaluate contracts and tenders in construction practice.

BAR 605 LANDSCAPE DESIGN & SITE PLANNING

Course Code: BAR 605

Credit Units: 02

L/2-ST/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Characteristics of various types of plants/trees/ shrubs/ creepers/ edges/ hedges etc., and their suitability for landscaping; plant selection criteria, planting design.
CO 2	Definition, scope, landscape architecture in relation to architecture. Landscape design elements and principles, historical review of gardens in India, Persia, Japan, Italy, France and England, contemporary landscape design

CO 3	To know Landscape design element such as sculptures/ benches/ umbrellas/ fences/ posts etc. their design, selection and incorporation in landscape/ site planning schemes. Characteristics of various types of plants/ trees/shrubs/ creepers/ edges/ hedges e tc., and their suitability for landscaping; plant selection criteria, planting design.
CO 4	To Evaluate the topography/ slope, hydrology/ drainage, geology/ soil, vegetation, views – on site/ off site and then consideration in design and planning.
CO 5	To design the outside space in accordance with the understandings and elements of site planning.
CO 6	To review, reflect, re-interpret and refine the effectiveness of the designed outdoor spaces

BAR 606 BUILDING SERVICES-V

Course Code: BAR 606

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Understanding the scope, importance and ethics of the field of building services. Appreciate the requirements of different types of building services. Learn the concepts of the building services systems
CO 2	To evaluate the quantity and quality of services to be provided.
CO 3	Identify the various appliances, fixtures and appurtenances. Learn about the popular techniques of the building sciences.
CO 4	Study about the thumb rules and the byelaws of the services and learn how to apply the knowledge while designing the layout of the buildings and its execution
CO 5	Develop reports and assignments containing write-ups, and sketches to express their understanding of building services during lectures and site visits.

BAR608 INTELLIGENT BUILDINGS

Course Code: BAR 608

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Concept of intelligent buildings and to acquaint the student with the factors to be taken
------	---

	into consideration to build an intelligent building a
CO 2	Understand the basic concept of Artificial Intelligence and how it is helpful for building construction technologies.

BAR 609 VASTU IN ARCHITECTURE

Course Code: BAR 609

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Understand the philosophy and believes in Vastu
CO 2	Learn the relationship between humans and cosmos
CO 3	Learn the concepts of vedicvastu
CO 4	Learn the site planning and planning approaches of vastu
CO 5	Produce building plans as per vastu

AND 006 AANANDAM-VI

Course Code: AND 005 Credit Units: 02 L/0-ST/0-P/4 Teaching hours: 04

Course Objectives:

The objective of this course is to make students aware and empathetic about community issues and to increase interaction among students as well as with the community to enlarge social network.

Course Contents:

Directions for Students

1. Students should do at least one individual act of goodness each day and Record this act in a dedicated diary/register
2. Students should share this dedicated diary/register in Aanandam period with the mentor and share experience with the class.
3. Students must take up one Community Service Project in a group of 8-12 students.
4. The students must take photographs to document their work
5. The students can obtain certificate from the NGO/ Government Agency they are working with for Group Community Service Project
6. The students may submit newspaper cuttings
7. The students must participate in the Aanandam Day by displaying charts of their Group Community Service Project

8. Students must submit Group Community Service Project Report at the end of semester.

BCS 601 COMMUNICATION SKILLS - IV

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS601	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self orientation.
CO 2	Showcase their leadership skills with effective team work.
CO 3	Outline the basic etiquettes in expressing their personality individually and in group.

FOREIGN LANGUAGE 601

Semester 6

Course Code: FLT 601 (Tech French)

Credit Units: 02

Course Learning Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To understand the essentials of an interview
- To present one research
- To present one university and professional course
- To speak about the professional projects
- To understand a remarkable topic
- To understand and ask questions
- To describe a person
- The content and the method of the report
- To make a plan of the report
- To write an introduction
- To understand a short technical message
- To reply to a survey

FLG601 GERMAN

VI

Semester 6:

Course Code: FLG 601

Credit units : 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

After successful completion of this semester, students will be able to:

- express their likes and dislikes (buying groceries)
- ask price and quantity
- express their likes and dislikes in terms of COths
- buy COths in the shopping mall

FLS 601 SPANISH

VI

Semester 6: Course Code: 601

Credit Units : 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To express future plans and intentions
- To talk about tourist destination in Spain and India
- Reading texts about Spanish historical monuments
- To talk about dance and music.
- Reading text about Spanish Cities
- Writing email to your friend/family members

FLC 601 CHINESE VI

Semester - VI

Course Code: FLC-601

Credit Units: 2

Course Objectives:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

On the completion of Sixth semester the students will be able to attain the proficiency of **HSK-II**. They will be able to:

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters given in the text.
- Write Chinese Characters and sentences and small paragraphs.
- Speak Chinese dialogues from various fields of day to day life.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Carry out effective conversation in the target language.
- Manipulate basic grammatical structures.
- Master and use most essential vocabulary items of day to day use: approx 70 Characters including 50 characters of HSK level –II
- Put up suggestions, explain reason, and do comparison.
- Do translation with the help of dictionaries and translation software.

MTARC 604 GRAPHICS SKILLS – V (Computer aided)

CourseCode: MTARC504

CreditUnits:03

Teachinghours:03

Course Objective (CO)

CO1	Remember various tools or short hand commands used in SketchUp, AutoCAD-3D, V-Ray.
CO2	Understand to develop high er-quality, more accurate architectural designs, and models; use tools specifically built to support 3D design-creation-rendering-animation based application. Apply the knowledge of various aspects of building Services & Construction techniques into 3Ddesigns.
CO3	Apply the knowledge of various aspects of building Services & Construction techniques into 3D designs.
CO4	Analyze the importance of 3D design creation rendering animation-based application in the field of Architecture and construction industry.
CO5	Evaluate 3D Modelling based design on critical thinking and problem-solving skills.
CO6	Create3DdesignmodelsofanArchitecturalProject.

BAR 701 DESIGN – VII

Course Code: BAR 701

Credit Units: 15 L/2-ST/8-P/0

Teaching hours: 10

COURSE OUTCOME

CO 1	Understanding of the theoretical and applied research methodologies and practices used during the campus design process.
CO 2	Integrated Evaluations and Decision-Making Design Process: Ability to demonstrate the skills associated with making integrated decisions across multiple

	systems and variables in the completion of a campus design project. This demonstration includes problem identification, setting evaluative criteria, analysing solutions, and predicting the effectiveness of implementation.
CO 3	Ability to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

BAR 702 MATERIALS & CONSTRUCTION TECHNOLOGY – VII

Course Code: BAR 702

Credit Units: 03

L/1-T1-P/1

Teaching hours: 03

COURSE OUTCOME

CO 1	To understand the design intent of the architect.
CO 2	To be able to read construction drawings.
CO 3	To Communicate with consultants & the vendors.
CO 4	To Develop and convert the design intent into a set of good for construction drawings.

BAR 703 CONSTRUCTION & PROJECT MANAGEMENT

Course Code: BAR 703

Credit Units: 02

L/2-ST/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	To remember the project management techniques for handling construction projects.
CO 2	To apply knowledge of charts & critical path networking for planning the construction activities.
CO 3	To analyse the resource allocation requirements for various construction projects.
CO 4	To formulate project schedules & plans for typical civil construction projects.

BAR 704 HOUSING & TOWN PLANNING

Course Code: BAR 704

Credit Units: 04

L/2-ST/2-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Understand and remember the fundamental concepts, definitions, and standards of town planning by learning the evolution and contemporary guidelines in practice.
CO 2	Evaluation of the various planning theories, works of notable town planners and outstanding examples, and the different stages of the contemporary planning process.
CO 3	Experience of the different stages of contemporary planning processes
CO 4	Creation of reports and thematic maps for land use and master plans

BAR 705 ARCHITECTURAL CONSERVATION

Course Code: BAR 705

Credit Units: 02

L/1-T/1-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Understanding the scope, importance and ethics of the field of Architecture Conservation. Also, learn about the different aspects of buildings and their causes of decay.
CO 2	Learning how to evaluate the value of a heritage site and the different approaches taken for architectural conservation.
CO 3	Apply the learning of the divergent approaches of conservation in comprehending the world wide examples of architectural conservation.
CO 4	Develop reports and assignments containing write-ups, and sketches to express their understanding of conservation projects after their site visits.

BAR 707 COLORS**Course Code : BAR 707 Credit Unit : 02 L/2-T/0-P/0****Teaching Unit : 02****COURSE OUTCOME**

CO 1	The impression of a color and the message it conveys is of utmost importance in creating the psychological mood or ambiance that supports the function of a space.
CO 2	Exploring colour schemes and their application in a visual composition and in architectural forms and spaces
CO 3	Theory and application of colours

BAR 708 BIOCLIMATIC ARCHITECTURE**Course Code: BAR 708 Credit Units: 02 L/2-T/0-P/0 Teaching hours: 02****A. COURSE OUTCOME**

CO 1	design of buildings and spaces based on the local climate to provide thermal and visual comfort, using solar energy and other environmental sources
CO 2	This course will introduce the students to the fundamentals of bioclimatic architecture and its main design principles.
CO 3	Identified the variables of bioclimatic architecture principles as sun shading devices, passive cooling system, thermal mass strategies and ventilation strategies.

BAR709 PROFESSIONAL PRESENTATION TECHNIQUES**Course Code: BAR709 Credit Units: 02 L/2-T/0-P/0 Teaching hours: 02****COURSE OUTCOME**

CO 1	To introduce basis language skills for oral professional communication that enables
------	---

	effective technical and professional conversation.
CO 2	To introduce the concept of tonality of the written word as a basic value for selection of terms and their composition in non-spoken forms of professional communication.
CO 3	To help student in developing design portfolio of their own academic projects.

BAR710 DESIGN OF LOGO & SIGNAGE'S

Course Code: BAR710

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

COURSE OUTCOME

CO 1	Solve complex design problems using creative thinking and analytical skills
CO 2	Develop and demonstrate their understanding and skillful use of the elements and principles of visual design
CO 3	Gain skill to use the digital tools as a powerful means of communication for creation, modification & presentation
CO 4	Learn ways to apply aesthetic sensibilities into their works and explore ways to balance between formal theories with practical applications.

BCS 701 COMMUNICATION SKILLS - VII

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS701	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
CO 2	Create right selection of words and ideas while choosing the appropriate channel of formal communication
CO 3	Apply acquired knowledge with the appropriate selection of channel of formal

	communication.
CO 4	Develop and empower self with the ease of using appropriate medium of communication.

BEHAVIOURAL SCIENCE – VII

(INDIVIDUAL, SOCIETY AND NATION)

Course Code: BSS705

Credit Units: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
Identify long term goals and recognize their talent, strengths and styles to achieve them

Semester 7 Course Code: FLT 701 (Tech French)

Credit Units: 02

Course Objective:

- Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of advance level.
- Students will be able to communicate with complex sentences.
 - To express the obligation
 - To suggest and give the advices
 - To speak about the recycling
 - To understand an interview and a project of research
 - To make a survey
 - To prepare for the oral communication
 - To prepare the posters
 - To understand and give the suggestions

Semester 7: Course Code: FLG 701

Credit units : 02

Course Objective:

- Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of advance level.
- Students will be able to communicate with complex sentences.

After successful completion of this semester, students will be able to:

- describe their holidays or vacations (perfect tense)
- talk about past events – What did you do yesterday? etc.
- understand weather reports
- express their opinion about weather.

Foreign Language Spanish

Semester 7: Course Code: FLS 701 Credit units : 02

Course Objective:

- Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of advance level.
- Students will be able to communicate with complex sentences.
- To be able to give order, command and make request. Formal and Informal
- Use of imperative in different types of situation: In a bar/ Classroom/ Market etc.
- To express prohibitions and permissions
- To be able to talk about actions in past indefinite tense
- Reading texts about Sports in Spain
- To be able to talk about past events – What did you do yesterday? Etc

BAR 801 PRACTICAL TRAINING

Course Code: BAR 801

Credit Units: 25

L/0-T/0-P/0

Teaching hours: 00

COURSE OUTCOME

CO 1	To make students acquire the practical experience which will concoct them for their likely responsibilities, immediately after qualifying B. Arch. Course.
CO 2	Students are expected to learn with the realm of architectural discipline ranging from generation of idea, preparation of drawings to the final execution of design on site.

BAR 901 Architectural Design – VIII (Urban Design Studio)

Course Code: BAR 901

Credit Units: 15

Teaching hours: 10

COURSE OUTCOME

CO 1	Understanding the scope, importance and need of the urban design. Learn the principles and concepts of the urban design. Appreciate the requirements of urban design guidelines.
CO 2	Evaluate urban design concepts applicability in different-different contexts by studying cases.
CO 3	Apply the learning of the previous semester and urban design to evolve a unique. Concept for a real urban design project.
CO 4	Evolve specific urban design guidelines, policies and recommendations for the project.
CO 5	Create an urban design proposal for the given project in terms of presentation drawings, 3D model; 3D views etc as per the given requirements.

BAR 902 ADVANCED MATERIALS & CONSTRUCTION TECHNOLOGY

Course Code: BAR 902

Credit Units: 03

Teaching hours: 03

COURSE OUTCOME

CO 1	Understanding the scope, importance and need of the urban design. Learn the principles and concepts of the urban design. Appreciate the requirements of urban design guidelines.
CO 2	Evaluate urban design concepts applicability in different-different contexts by studying cases.
CO 3	Apply the learning of the previous semester and urban design to evolve a unique. Concept for a real urban design project.
CO 4	Evolve specific urban design guidelines, policies and recommendations for the project.
CO 5	Create an urban design proposal for the given project in terms of presentation drawings, 3D model; 3D views etc as per the given requirements.

BAR 903 DISSERTATION

Course Code: BAR 903

Credit Units: 02

Teaching hours: 04

COURSE OUTCOME

CO 1	To define basic elements of housing, interrelationships between human needs and housing subsystems,
CO 2	To outline various housing policies and programmes; zoning regulations and development norms
CO 3	To understand the concept of demand and supply in housing
CO 4	Feasibility analysis of housing project through pre design calculations & critical appraisal of existing housing schemes
CO 5	To develop suitable design of a neighbourhood based on the basis of knowledge acquire.

BAR 904 LIGHT AND ARCHITECTURE

Course Code: BAR 904

Credit Units: 02

Teaching hours: 03

COURSE OUTCOME

CO 1	Identification of research area and preparation of research proposal
CO 2	Literature study and data collection
CO 3	Analysis of site and data
CO 4	Prepare research methodology
CO 5	Preparation of reports and drawings

BAR905 INTELLIGENT INTERIORS

Course Code: BAR 905

Credit Units: 02

L/2-T/0-P/0 Teaching hours: 02

COURSE OUTCOME

CO 1	Understanding the scope, importance and need of the urban design. Learn the principles and concepts of the urban design. Appreciate the requirements of urban design guidelines.
CO 2	Evaluate urban design concepts applicability in different-different contexts by studying cases.
CO 3	Apply the learning of the previous semester and urban design to evolve a unique. Concept for a real urban design project.
CO 4	Evolve specific urban design guidelines, policies and recommendations for the project.
CO 5	Create an urban design proposal for the given project in terms of presentation drawings, 3D model; 3D views etc as per the given requirements.

BAR907 TENSILE CONSTRUCTION

Course Code: BAR

Credit Units: 02 L/2-T/0-P/0

Teaching hours: 0

Course Objectives:

CO 1	Comprehend Design Process for developing Products.
CO 2	Employ ergonomics in Product Design
CO 3	Select appropriate production technology
CO 4	Develop an innovative product prototype.
CO 5	Employ material understanding in Product Design

BAR908 INTERIOR DESIGN

Course Code: BAR 908

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

CO 1	Comprehend Design Process for developing Products.
CO 2	Employ ergonomics in Product Design
CO 3	Select appropriate production technology
CO 4	Develop an innovative product prototype.
CO 5	Employ material understanding in Product Design

BAR909 SET DESIGN

Course Code: BAR 909

Credit Units: 02

L/2-T/0-P/0

Teaching hours: 02

CO 1	To understand the importance of prefabrication techniques A- modern way in construction industry.
CO 2	To understand the importance of prefabrication techniques A- modern way in construction industry.
CO 3	To understand the design considerations in the process of prefabrication techniques.
CO 4	Apply the joining techniques in prefabrication techniques to create the communication between the structural elements for a building.

BAR 1001 Project (Thesis)**Course Code: BAR 1001****Credit Units: 18****Teaching hours: 24****COURSE OUTCOME**

CO 1	To illustrate the ability to designs a project responsive to the contextual and program requirements
CO 2	To demonstrate systematic & methodological learning from various stages of the research & design process.
CO 3	To communicate the ideas clearly using writing, verbal and visual presentation
CO 4	To evaluate & compare data gathered from pre-design research
CO 5	To demonstrate application of various codes, standards and regulations governing the project.
CO 6	To illustrate the ideas clearly using a detailed physical Model.

BAR 1002 Professional Practice & Management**Course Code: BAR 1002****Credit Units: 02****Teaching hours: 02****COURSE OUTCOME**

CO 1	Identify different professional bodies and Statutory Bodies in India, their functioning, importance and role towards the profession and role of the professional towards these bodies
CO 2	Analyse and critically evaluate the requirements of a professional office/ corporate office to be ready to establish/join one.
CO 3	Select and implement one of the practice types to be able to establish one's own practice
CO 4	Demonstrate awareness of laws and bylaws related to the profession

BAR 1003 PRODUCT DESIGN**Course Code: BAR 1003****Credit Units: 02****Teaching hours: 02****COURSE OUTCOME**

CO 1	Identification of research area and preparation of research proposal
CO 2	Literature study and data collection
CO 3	Analysis of site and data
CO 4	Prepare research methodology
CO 5	Preparation of reports and drawings

BAR 1004
Course Code: BAR 1004

COSTEFFECTIVE ARCHITECTURE
Credit Units: 02 Teaching hours: 02

COURSE OUTCOME

CO 1	To help the students for understand the concept of building economics behavior and requirements of buildings with emphasis laid on the principles of various costs & economic performance of building
------	---

BAR 1005 GEOGRAPHICAL INFORMATION SYSTEM
Course Code: BAR 1005 Credit Units: 02 Teaching hours: 02

COURSE OUTCOME

CO 1	To familiarize students with recent trends that led to development of virtual architecture with development of virtual reality and simulation technology
CO 2	To train students in basic and advance softwares for architectural visualization

BAR1006 ARCHITECTURE JOURNALISM
Course Code: BAR 1006 Credit Units: 02 L/2-T/0-P/0 Teaching hours: 02

CO 1	To introduce basis language skills for oral professional communication that enables effective technical and professional conversation.
CO 2	To introduce the concept of tonality of the written word as a basic value for selection of terms and their composition in non-spoken forms of professional communication.
CO 3	To help student in developing design portfolio of their own academic projects.

BAR1007 BUILDING ECONOMICS AND LEGISLATION
Course Code: BAR 1007 Credit Units: 02 L/2-T/0-P/0 Teaching hours: 02

CO 1	To introduce basis language skills for oral professional communication that enables effective technical and professional conversation.
CO 2	To introduce the concept of tonality of the written word as a basic value for selection of terms and their composition in non-spoken forms of professional

	communication.
CO 3	To help student in developing design portfolio of their own academic projects.

BAR1008 BUILDING INFORMATION MANAGEMENT

Course Code: BAR 1008 Credit Units: 02L/2-T/0-P/0Teaching hours: 05

CO 1 :	Understand and remember the fundamentals of drafting
CO 2 :	Understand the fundamentals of geometry
CO 3:	Understand the principle and different types of projections and views
CO 4 :	Learning the techniques of surface development
CO 5 :	Produce presentations on all the four cognitive learning outcomes.

BAR1009 ENVIRONMENTIMPACT ASSESMENT

Course Code: BAR 1009 Credit Units: 02 L/2-T/0-P-0 Teaching hours: 02

CO 1 :	Understand and remember the fundamentals of drafting
CO 2 :	Understand the fundamentals of geometry
CO 3:	Understand the principle and different types of projections and views
CO 4 :	Learning the techniques of surface development
CO 5 :	Produce presentations on all the four cognitive learning outcomes.

BAR1010 VIRTUAL ARCHITECTURE

Course Code: BAR 1011 Credit Units: 02. L/2-T/0-P/0. Teaching hours: 02

CO 1	To familiarize students with recent trends that led to development of virtual architecture with development of virtual reality and simulation technology
CO 2	To train students in basic and advance softwares for architectural visualization



AMITY UNIVERSITY
R A J A S T H A N

**AMITY SCHOOL OF ARCHITECTURE & PLANNING
(ASAP)**

Bachelor of Interior Design

12803

Duration – 4 Years Full Time

Programme Structure

Program Specific Outcomes (PSOs)

Upon successful completion of Bachelor of Interior Design degree program students will demonstrate the ability to:

- 1.** Analyze & evaluate the project brief; conceptualize and propose a creative, functional and efficient Interior Design of any complexity.
 - 2.** Awareness towards the latest market trends both in products and technological advancements related to Interior design practices; utilize & apply this knowledge in their academic design projects & creations.
 - 3.** Analyze the complexity of forces – environmental, economic, political, sociological and technological – which influence the design of the physical environment & to be able to apply a design decision-making process through appropriate technical documentation in a manner that is client-centered, sustainable, aesthetic, cost effective, and socially responsible.
 - 4.** To produce integrated interior design solutions by incorporating appropriate knowledge of building materials, building services & construction technologies.
 - 5.** To build ability to understand ethical and professional responsibilities, comprehending realistic aspects of interior design practice & communicating effectively while working in inter- disciplinary groups.
-

Program Structure

AMITY SCHOOL OF ARCHITECTURE & PLANNING (ASAP) Bachelor of Interior Design

FIRST SEMESTER

Course Code	Course Title	Category	L / T / P / ST Per Week			Credits	Teaching Hours
			L Per Week	St Per Week	P per week		
BID 101	Design-I	CC	0	6	0	9	6
BID 102	Materials & Construction Techniques - I	CC	1	1	1	3	3
BID 103	Art & Graphics- I	CC	0	0	2	1	2
BID 104	Graphics Skills -I	CC	0	0	4	2	4
BID 105	History of Built Environment	CC	2	0	0	2	2
BID 106	Interior Workshop	CC	0	0	2	1	2
BID 107	Theory of Design	CC	2	0	0	2	2
BID 108	Structural Design & Systems – I	CC	2	0	0	2	2
BID 109	Presentation Techniques	CC	0	0	2	1	2
AND 001	Aanandam-I	VA	0	0	4	2	4
BCS 101	English	VA	1	0	0	1	1
BSS 104	Behavioural Science – I (Understanding Self for Effectiveness)		1	0	0	1	1
	Foreign Language - I	VA	2	0	0	2	2
FLF 101	French	VA				0	0
FLG 101	German					0	0
FLS 101	Spanish					0	0
FLC 101	Chinese					0	0
	TOTAL		11	7	15	29	33

SECOND SEMESTER

Course Code	Course Title	Category	L / T / P / ST Per Week			Credits	Teaching Hours
			L Per Week	St Per Week	P Per Week		
BID 201	Design – II	CC	0	6	0	9	6
BID 202	Materials & Construction Techniques - II	CC	1	1	1	3	3
BID 203	Art & Graphics- II	CC	0	0	2	1	2
BID 204	Graphics Skills -II	CC	0	0	4	2	4
BID 205	History of Interior Design - I	CC	2	0	0	2	2
BID 206	Building Services - I	CC	2	0	0	2	2
AND 002	Aanandam-II	VA	0	0	4	2	4
EVS 001	Environment Science	VA	4	0	0	4	4
BCS 201	English	VA	1	0	0	1	1
BSS 204	Behavioural Science – II (Problem Solving and Creative Thinking)	VA	1	0	0	1	1
	Foreign Language - II	VA				2	2
FLF 201	French	VA	2	0	0	0	0
FLG 201	German					0	0
FLS 201	Spanish					0	0
FLC 201	Chinese					0	0
	Minor Track	OE	3	0	0	3	3
	TOTAL		16	7	11	32	34

THIRD SEMESTER

Course Code	Course Title	Category	L / T / P / ST Per Week			Credits	Teaching Hours
			L Per Week	St Per Week	P Per Week		
BID 301	Design- III	CC	0	6	0	9	6
BID 302	Materials & Construction Techniques - III	CC	1	1	1	3	3
BID 303	Art and Graphics – III	CC	0	0	2	1	2
BID 304	Graphics Skills- III	CC	0	0	4	2	4
BID 305	History of Interior Design – II	CC	2	0	0	2	2
BID 306	Building Services- II	CC	2	0	0	2	2
BID 307	Furniture Design Workshop - I	CC	0	0	2	1	2
Domain Elective – I (Select any One)							
BID 308	Photography	DE	0	0	2	1	2
BID 309	Vernacular Architecture						
BID 310	Model Making Workshop						
AND 003	Aanandam-III	VA	0	0	4	2	4
BCS 301	Communication Skills - I	VA	1	0	0	1	1
BSS 304	Behavioural Science – III (Interpersonal Communication)		1	0	0	1	1
	Foreign Language - III						
FLF 301	French						
FLG 301	German		2	0	0	2	2
FLS 301	Spanish						
FLC 301	Chinese						
	Minor Track	OE	3	0	0	3	3
	TOTAL		12	7	15	30	34

FOURTH SEMESTER

Course Code	Course Title	Category	L / T / P / ST Per Week			Credits	Teaching Hours
			L Per Week	St Per Week	P Per Week		
BID 401	Design – IV	CC	0	6	0	9	6
BID 402	Materials & Construction Techniques - IV	CC	1	1	1	3	3
BID 403	Art and Graphics – IV	CC	0	0	2	1	2
BID 404	Graphics Skills –IV	CC	0	0	4	2	4
BID 405	Furniture Design Workshop – II	CC	0	0	2	1	2
BID 406	Building Services – III	CC	2	0	0	2	2
Domain Elective – II (Select any One)							
BID 408	Innovative Material for Finishes	DE	2	0	0	2	2
BID 409	Interior Documentation						
BID 410	Barrier Free Space Planning for Interiors						
AND 004	Aanandam - IV	VA	0	0	4	2	4
BCS 401	Communication Skills – II	VA	1	0	0	1	1
BSS 404	Behavioral Science - IV (Relationship Management)	VA	1	0	0	1	1
	Foreign Language - IV	VA	2	0	0	2	2
FLF 401	French						
FLG 401	German						
FLS 401	Spanish						
FLC 401	Chinese						
	Minor Track	OE	3	0	0	3	3
	TOTAL		12	7	13	29	32

FIFTH SEMESTER

Course Code	Course Title	Category	L / T / P / ST Per Week			Credits	Teaching Hours
			L Per Week	T/St Per Week	P Per Week		
BID 501	Design – V	CC	0	8	0	12	8
BID 502	Materials & Construction Techniques - V	CC	1	1	1	3	3
BID 503	Estimation & Specifications	CC	2	0	0	2	2
BID 504	Graphics Skills – V	CC	0	0	4	2	4
BID 505	Interior Project Management	CC	2	0	0	2	2
BID 506	Building Services - IV	CC	2	0	0	2	2
Domain Elective – III (Select any One)							
BID 507	Material Appreciation	DE	2	0	0	2	2
BID 508	Energy Conservation Architecture						
BID 509	Climate Responsive Interiors						
AND 005	Aanandam - V	VA	0	0	4	2	4
BCS 501	Communication Skills – III	VA	1	0	0	1	1
BSS 504	Behavioral Science -V (Group Dynamics & Team Building)	VA	1	0	0	1	1
	Foreign Language – V	VA	2	0	0	2	2
FLF 501	French						
FLG 501	German						
FLS 501	Spanish						
FLC 501	Chinese						
	Minor Track	OE	3	0	0	3	3
	TOTAL		16	9	9	34	34

SIXTH SEMESTER

Course Code	Course Title	Category	L / T / P / ST Per Week			Credits	Teaching Hours
			L Per Week	St Per Week	P Per Week		
BID 601	Design – VI	CC	0	8	0	12	8
BID 602	Detailing In Interiors-I	CC	1	1	1	3	3
BID 603	Professional Practice	CC	2	0	0	2	2
BID 604	Dissertation	CC	0	0	4	2	4
BID 605	Building Services- V	CC	2	0	0	2	2
Domain Elective – IV (Select any One)							
BID 607	Intelligent Buildings	DE	2	0	0	2	2
BID 608	Vaastu in Architecture						
BID 609	Professional Presentation Techniques						
AND 006	Aanandam - VI	VA	0	0	4	2	4
BCS 601	Communication Skills – IV	VA	1	0	0	1	1
BSS 604	Behavioral Science – VI (Stress and Coping Strategies)	VA	1	0	0	1	1
	Foreign Language – VI	VA	2	0	0	2	2
FLF 601	French					0	0
FLG 601	German					0	0
FLS 601	Spanish					0	0
FLC 601	Chinese					0	0
	Minor Track	OE	3			3	3
	TOTAL		14	9	9	32	32

SEVENTH SEMESTER

Course Code	Course Title	Category	L / T / P / ST Per Week			Credits	Teaching Hours
			L Per Week	T Per Week	P/ST Per Week		
BID701	Professional Training	NTCC				20	0
	TOTAL		0	0	0	20	0

Professional Training will be conducted during Seventh semester. Evaluation will be done before registration in Eighth semester.

EIGHTH SEMESTER

Course Code	Course Title	Category	L / T / P / ST Per Week			Credits	Teaching Hours
			L Per Week	St Per Week	P Per Week		
BID 801	Interior Thesis Project	CC	0	10	0	15	10
BID 802	Detailing of Interior II	CC	1	1	1	3	3
Domain Elective – V (Select any One)							
BID 803	Lighting in Interiors	DE	2	0	0	2	2
BID 804	Modular Construction Technology						
BID 805	Film & Television Set Design						
Elective – VI (Select any One)							
BID 806	Intelligent Interiors	DE	2	0	0	2	2
BID 807	Interior Landscape						
BID 808	Design of Logo & Signages						
Domain Elective – VII (Select any One)							
BID 809	Interior Journalism	DE	2	0	0	2	2
BID 810	Cost Effective Interiors						
BID 811	Specialised Interiors						
AND 007	Aanandam - VII	VA	0	0	4	2	4
	TOTAL		7	11	5	26	23

Total Credits (29+32+30+29+34+32+20+26) = 232

COURSE OUTCOMES

AMITY SCHOOL OF ARCHITECTURE & PLANNING (ASAP) Bachelor of Interior Design

BID 101 DESIGN – I

Course Code: BID 10 Credit Units: 09 L-0/ST-6/P-0 Teaching hours: 06

COURSE OUTCOME:

CO 1 :	Interpret and Implement “Design” as a problem solving process.
CO 2 :	Recognise and Execute visual form, functional space, anthropometrics, technology, economy, culture and environment as key parameters of Architecture.
CO 3 :	Investigate, Compare and Inferexisting architectural spaces through their measured drawings, models and photographs
CO 4 :	Conclude and Recommend criteria to Justify/Decide basis for architecture design proposal
CO 5:	Develop, Propose and Draw the Design for a given architectural situation and Communicate through conventional architectural representations

BID 102 MATERIALS AND CONSTRUCTION TECHNIQUES - I

Course Code: BID 102 Credit Units: 03 L-1/ST-1/P-1 Teaching hours: 03

COURSE OUTCOME:

CO 1 :	To define basic building elements.
CO 2 :	To Recognize the various types of brick and stone masonry both in superstructure and foundation
CO 3:	To know about the types and fundamental aspects of construction in stone & brick i.e masonry, openings

CO 4 :	To be able to use composite materials in a structure.
CO 5 :	To be aware of the properties and applications of the various materials

BID 103 ART & GRAPHICS – I

Course Code: BID 103 Credit Units: 01 L-0/T-0/P-2 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Analyse & evaluate the stress - strain relations for beam element under various loading & support conditions.
CO 2 :	To Recognize the various types of brick and stone masonry both in superstructure and foundation
CO 3:	To know about the types and fundamental aspects of construction in stone & brick i.e masonry, openings
CO 4 :	To be able to use composite materials in a structure.
CO 5 :	To be aware of the properties and applications of the various materials

BID 104 GRAPHIC SKILLS – I

Course Code: BID 104 Credit Units: 02 L-0/ T-0/ P-4 Teaching hours: 04

COURSE OUTCOME:

CO 1 :	Understand and remember the fundamentals of drafting
CO 2 :	Understand the fundamentals of geometry
CO 3:	Understand the principle and different types of projections and views
CO 4 :	Learning the techniques of surface development
CO 5 :	Produce presentations on all the four cognitive learning outcomes.

BID 105 HISTORY OF BUILT ENVIRONMENT

Course Code: BID 105

Credit Units: 02 L-2/T-0/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Analyze and evaluate the building styles of different eras and the strategic developments of forms and structures
CO 2 :	Examine the developments in the use of materials with different eras.
CO 3:	Analyze the spaces proportions, and sections, motifs of typologies of buildings such as communal hall, residences etc.

BID106 INTERIOR WORKSHOP

Course Code: BID 106

Credit Units: 01 L0/T-0/P-2

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	To remember different tools used in carpentry, masonry and surface painting
CO 2 :	To understand the technique of applying construction material such as brick, cement, wood, stone and its testing.
CO 3:	To construct different building components like dome, arch and wall with various typologies.
CO 4 :	To create new forms and structures using the learned techniques.

BID 107 THEORY OF DESIGN

Course Code: BID 107

Credit Units: 02 L-2/T-0/P-0 Teaching Hours : 02

Course Learning Objective

CO 1 :	To Illustrate The Knowledge of various principles elements design.
CO 2 :	To critically analyse the 2D & 3D compositions.
CO 3:	To analyse the differences between systematic and random design approach though developing understanding of design thinking.

BID 108 STRUCTURAL DESIGN & SYSTEM- I

Course Learning Objective

CO 1 :	Visualize the structures & its members in terms of internal spaces of building or room to identify the importance & use of structural members in building.
CO 2 :	Analyse the cross- section & material properties for the structural members.
CO 3:	Examine the classification of structures according to importance & use of internal spaces of building.
CO 4:	Demonstrate the fundamental concept of principle of structures to understand the basic mechanics to visualize the structural design & its system.

BID 109 PRESENTATION TECHNIQUES

Course Code: BID 109 Credit Units: 01 L-0/T-0/P-2

Teaching hours: 02

Course Learning Objective

CO 1 :	Develop the understanding of various most relevant Presentation Techniques for the purpose of Design Project.
CO 2 :	Develop the ability of lateral thinking required for visualizing the balance between various building materials & elements.
CO 3:	Create better design solutions in an effective way by enhancing the observation and learning skills through existing projects.

AND 001 AANANDAM-I

Course Code: **AND 001** Course Type: **Compulsory** Credit Units: **02** Credit Units: **02**

COURSE OUTCOMES:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities

- Critical thinking, Confidence and Efficiency

BCS 101 ENGLISH

Course Code: BCS101 Credit Units: 01 Teaching hours: 01

Course Objective:

The course is intended to give a foundation of English Language. The literary texts are indented to help students to inculcate creative & aesthetic sensitivity and critical faculty through comprehension, appreciation and analysis of the prescribed literary texts. It will also help them to respond form different perspectives.

BSS 105 BEHAVIOURAL SCIENCE – I

(UNDERSTANDING SELF FOR EFFECTIVENESS)

Course Code: BSS105 Credit Units: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) should be able to:

1. Demonstrate awareness of self and the process of self-exploration.
2. Demonstrate knowledge of strategies for developing a healthy self-esteem.
3. Recognize the importance of attitudes and its effect on personality.
4. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FOREIGN LANGUAGE : Foreign Language French (Technology)

Semester 1 Course Code: FLT 101/111 (Tech French) Credit Units: 02

COURSE OUTCOMES:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts.
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.
5. To tell ones name and to spell it
6. To understand the French keyboard

- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

BID 201 DESIGN – II

COURSE OUTCOME:

CO 1 :	Analyse functional spaces and the issues like clearances, lighting and ventilation, using the anthropometric study approach and work out Minimum and optimum areas for various functions.
CO 2 :	Design according to the human considerations like, privacy, convenience, comfort, etc
CO 3 :	Investigate, Compare and Infer existing architectural spaces through their measured drawings, models and photographs
CO 4 :	Conclude and Recommend criteria to Justify/Decide basis for architecture design proposal
CO 5 :	Develop, Propose and Draw the Design for a given architectural situation and Communicate through conventional architectural representations

BID 202 MATERIALS AND CONSTRUCTION TECHNIQUES - II

Course Code: BID 202

Credit Units: 03 L-1/ST-1/P-1

Teaching hours: 03

COURSE OUTCOME:

CO 1 :	Distinguish between various type of wood though analysing their physical and chemical properties. Evaluate Cross sectional detail of a log Properties of Timber; Processing of Timber Evaluate and Identify use of timber & timber products in buildings
CO 2 :	Design according to the human considerations like, privacy, convenience, comfort, etc
CO 3 :	Recognise the different types of openings made up of timber in day to day life & understand the construction techniques of making wooden doors and windows. Develop understanding regarding the different types of carpentry joints & their specific uses and evaluate the best suitable joint in openings. Understand the construction techniques of making wooden staircase. Understand the various types of wooden trusses, their different components and construction techniques of making wooden trusses.
CO 4 :	Evaluating and Analysing with the market surveys, case examples or literature studies available.

CO 5:	Create details for constructing a wooden staircase. After evaluating and analysing various wooden joints , Students will create roof trusses, staircases, windows or door.
-------	---

BID 203 ART AND GRAPHICS – II

Course Code: BID 203

Credit Units: 01 L-0/ST-0/P-2.

Teaching Hours: 02

COURSE OUTCOME:

CO 1 :	To develop the understanding of various most relevant Rendering to present drawings/ideas/expression for the purpose of a Design Project.
CO 2 :	To create ability to identify the appropriate scale, proportion, aesthetic sense & balance between various elements/ components of social, economic, cultural and environmental aspects of design and to develop ability to represent the same with hand drawings/sketches etc.
CO 3 :	To develop the ability of lateral thinking required for visualizing the balance between various building materials/colors & elements.
CO 4 :	To develop ability to create better design solutions in an effective way by enhancing the observation

BID 204 GRAPHIC SKILLS – II

Course Code: BAR 204 Credit Units: 02 L-0/T-0/P-4 Teaching hours: 04

Course Learning Objective

CO 1 :	Understand and remember the fundamentals of drafting
CO 2 :	Understand the fundamentals of geometry Understand the principle and different types of projections and views
CO 3:	Produce presentations on all the four cognitive learning outcomes.

BID 205 HISTORY OF INTERIOR DESIGN - I

Course Code: BID 205

Credit Units: 02 L-2/T-0/P-0

Teaching hours:

COURSE OUTCOME:

CO 1 :	Analyze and evaluate the building styles of different eras and the strategic developments of forms and structures
CO 2 :	Examine the developments in the use of materials with different eras.
CO 3:	Analyse the spaces proportions, and sections, motifs of typologies of buildings such as communal hall, residences etc.

BID 206 BUILDING SERVICES-I

(Water Supply and Sanitation)

Course Code: BID 206

Credit Units: 02 L-2/T-0/P-0

Teaching hours: 02

Course Learning Objective:

CO 1 :	Understanding the scope, importance and ethics of the field of building services. Appreciate the requirements of different types of building services. Learn the concepts of the building services systems
CO 2 :	To evaluate the quantity and quality of services to be provided.
CO 3:	Identify the various appliances, fixtures and appurtenances. Learn about the popular techniques of the building sciences.
CO 4	Study about the thumb rules and the byelaws of the services and learn how to apply the knowledge while designing the layout of the buildings and its execution
CO 5	Develop reports and assignments containing write-ups, and sketches to express their understanding of building services during lectures and site visits.

AND 002 AANANDAM-II

Course Code: AND 002

Course Type: Compulsory

Credit Units: 02

COURSE OUTCOMES:

The student should develop:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

EVS 201 ENVIRONMENT SCIENCE

Course Code: EVS 201

Credit Unit: 04

Teaching hours: 04

COURSE OUTCOMES:

The term environment is used to describe, in the aggregate, all the external forces, influences and conditions, which affect the life, nature, behavior and the growth, development and maturity of living organisms. At present a great number of environment issues, have grown in size and complexity day by day, threatening the survival of mankind on earth. A study of environmental studies is quite essential in all types of environmental sciences, environmental engineering and industrial management. The objective of environmental studies is to enlighten the masses about the importance of the protection and conservation of our environment and control of human activities which has an adverse effect on the environment.

BCS 201 ENGLISH

Course Name	Course Code	LTP	Credit	Semester
General English	BCS 201	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Participate in conversation and in small- and whole-group discussion
CO 2	Explore and use English as medium of communication in real life situation
CO 3	Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
CO 4	Identify features of a reading textbook and utilize them as needed
CO 5	Prepare and deliver organized presentations in small groups and to whole class
CO 6	Apply sentence mechanics and master spelling of high frequency words

BEHAVIOURAL SCIENCE - II (PROBLEM SOLVING AND CREATIVE THINKING)

Course Code: BSS 205

Credit Units: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) would be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hindrance to problem solving processes.
3. Analyze the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FLT 201/211 FOREIGN LANGUAGE FRENCH (TECHNICAL)

Semester 2

Course Code: FLT 201/ 211

Credit Units: 02

COURSE OUTCOMES:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc
5. To speak about the activities and hobbies
6. To express ones tastes
7. To excuse oneself
8. To understand a mail
9. To ask ones way
10. To indicate the direction
11. To express a wish
12. To ask for information
13. To give an order or a suggestion
14. To read a plan of metro and RER.

FLG 201/ 211 FOREIGN LANGUAGE GERMAN

Semester 2:

Course Code: FLG 201/211

Credit units : 02

COURSE OUTCOMES:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language

2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

After successful completion of this semester, students will be able to:

1. Recognizing geographical locations.
2. Know famous places in Germany and Europe.
3. To be able to form basic questions
4. use of past participle of verb was/were and make sentences.
5. able to conjugate irregular verbs
6. use possessive article for the nominative case
7. Use of adjectives in sentences.
8. They can describe their house like number of bedroom, kitchen etc

FLS 201/211 FOREIGN LANGUAGE SPANISH

Semester 2:

Course Code: FLS 201/211

Credit units : 02

COURSE OUTCOMES:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.
5. To enhance all five skills of the language: Reading, Writing, Listening, Interacting and speaking.
6. Adjectives to describe people
7. To talk about locations and places.
8. To be able to form basic questions
9. Counting till 100
10. To be able to speak about daily Routine and verbs of daily usage both regular & irregular verbs.

FLC 201/ 211 FOREIGN LANGUAGE CHINESE

Semester - II

Course Code: 201/211

Credit Units: 02

COURSE OUTCOMES:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc.

On the completion of second semester the students will be able to:

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters.
- Write Chinese Characters and sentences.
- Speak Chinese dialogues with correct pronunciation & tone.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Manipulate basic grammatical structures such as questions type (2), 有 sentence, verbal predicate, 们, numeration, time etc.
- Master and use most essential vocabulary items of day to day use; approx 110 Characters including 50 characters of HSK level -I.
- Understand Sino-Indian Relations.

BID 301 DESIGN – III

Course Code: BID 301

Credit Units: 09

L-0/ST-6/P-0

Teaching hours: 06

COURSE OUTCOME:

CO 1 :	Analyse functional spaces and the issues like clearances, lighting and ventilation, using the anthropometric study approach and work out Minimum and optimum areas for various functions.
CO 2 :	Design according to the human considerations like, privacy, convenience, comfort, etc
CO 3 :	Investigate, Compare and Infer existing architectural spaces through their measured drawings, models and photographs
CO 4 :	Conclude and Recommend criteria to Justify/Decide basis for architecture design proposal
CO 5:	Develop, Propose and Draw the Design for a given architectural situation and Communicate through conventional architectural representations

BID 302 MATERIALS AND CONSTRUCTION TECHNIQUES - III

Course Code: BID 302 Credit Units: 03 L-1/ST-1/P-1 Teaching hours: 03

COURSE OUTCOME:

CO 1 :	To define basic building elements.
CO 2 :	To Recognize the various types of brick and stone masonry both in superstructure and foundation
CO 3:	To know about the types and fundamental aspects of construction in stone & brick i.e masonry, openings.
CO 4 :	To be able to use composite materials in a structure.
CO 5:	To be aware of the properties and applications of the various materials

BID 303 ART AND GRAPHICS – III

Course Code: BID 303 Credit Units: 01 L-0/ST-0/P-2 Teaching Hours:02

COURSE OUTCOME:

CO 1 :	To develop the understanding of various most relevant Rendering to present drawings/ideas/expression for the purpose of a Design Project
CO 2 :	To create ability to identify the appropriate scale, proportion, aesthetic sense & balance between various elements/ components of social, economic, cultural and environmental aspects of design and to develop ability to represent the same with hand drawings/sketches etc.
CO 3:	To develop the ability of lateral thinking required for visualizing the balance between various building materials /colors & elements.
CO 4 :	To develop ability to create better design solutions in an effective way by enhancing the observation of shades and learning skills through existing structures, field study.

BID 304 GRAPHIC SKILLS – III

Course Code: BID 304 Credit Units: 02 L-0/ST-0/P-4 Teaching Hours:04

COURSE OUTCOME:

CO 1 :	Analyse & produce manual drawings of interpenetration of different solids in different positions and at different angles.
CO 2 :	Understand the importance and use of perspective drawing in architecture; Anatomy of perspective-cone of vision, station Points and produce one point and two point perspective drawings manually through plan method and grid method.
CO 3 :	Calculate and draw sciography, using different grades of shade and shadow in elevation and perspective views.
CO 4 :	Apply the presentation techniques using different mediums such as color/ ink, as per

	light position. Also understand the use of basic plantation, vehicles, human beings etc to introduce scale to building perspectives.
--	--

BID 305 HISTORY OF INTERIOR DESIGN - II

Course Code: BID 305 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02

CO 1 :	Analyse and evaluate the building styles of different eras and the strategic developments of forms and structures
CO 2 :	Synchronize the construction activities with installation of building services. Select the suitable system for particular requirements of buildings.
CO 3 :	Understanding the importance of sound energy and its impact on building design and also able to control noise within the interior and from exterior sources.

BID 306 BUILDING SERVICES-II (Electrical System & Lighting)

Course Code: BID 306 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02
COURSE OUTCOME:

CO 1	Understand the basic of sound energy, process and are able to manage building acoustical services provisions in construction sites.
CO 2:	Examine the developments in the use of materials with different eras
CO 3	Analyse the spaces proportions, and sections, motifs of typologies of buildings such as communal hall, residences etc.

BID307 FURNITURE DESIGN WORKSHOP - I

Course Code: BID 307 Credit Units: 01 L-0/ST-0/P-2 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	To learn about the Importance of ergonomics, material design and working parameters and visual perception of furniture..
CO 2 :	To know standards Human factors, therefore, are a major influence on the form, proportion, and scale of furniture.
CO 3 :	To Evaluate the effectiveness of a furniture element, unified appearance of built - in furniture with the flexibility and movability of furniture.
CO 4	To evaluate each material's strengths and weaknesses that should be recognized in furniture design.
CO 5	To design ideas into three dimensional reality

Domain Electives – I

BID 308 PHOTOGRAPHY

Course Code: BID 308 **Credit Units: 01** **L-0/ST-0/P-2** **Teaching hours: 02**

COURSE OUTCOME:

CO 1 :	A comprehensive knowledge and understanding of light, exposure and colour , and their application in architectural lighting
CO 2 :	An advanced understanding of theories of photographic composition, balance and weight
CO 3 :	A knowledge of the history of architectural photography, with an awareness of the contextual boundaries within, and outside of, the genre.
CO 4 :	An advanced ability to use film and digital cameras to capture and create outstanding photographs of architecture, form and space

BID 309 VERNACULAR ARCHITECTURE

Course Code: BID 309 **Credit Units: 01** **L-0/ST-0/P-2** **Teaching hours: 02 Hours**

COURSE OUTCOME:

CO 1 :	To understand how the contexts of a region have an impact on vernacular architectural forms.
CO 2 :	To explore various traditional materials and construction techniques used in vernacular architectural forms.
CO 3 :	To acquire knowledge on traditional materials and construction techniques which can be used in the design of built spaces in the modern context.
CO 4 :	Understanding the impact of context of a region over architectural forms and expressions will lead to sensible and context specific and sensitive design solutions.

BID310 MODEL MAKING WORKSHOP

Course Code: BID 310 **Credit Units: 01** **L-0/ST-0/P-2** **Teaching hours: 02**

COURSE OUTCOME:

CO 1 :	To remember different tools used in carpentry, masonry and surface painting
CO 2 :	To understand the technique of applying construction material such as brick, cement, wood, stone and its testing.

CO 3:	To construct different building components like dome, arch and wall with various typologies.
CO 4 :	To create new forms and structures using the learned techniques.

AND 003 AANANDAM-III

Course Code: **AND 003** Credit Units: **02** L/0-ST/0-P/4 Teaching hours: **04**

Course outcomes:

The objective of this course is to make students aware and empathetic about community issues and to increase interaction among students as well as with the community to enlarge social network.

BCS 301 COMMUNICATION SKILLS - I

Course Code: **BCS 301** Credit Units: **01** Teaching hours: **01**

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 301	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Inculcating creative thinking skills
CO 2	Construct and showcase their communication skills in a creative manner.
CO 3	Comprehending and demonstrating ways of self-introduction
CO 4	Outlining and illustrating presentation Skills

BEHAVIOURAL SCIENCE – III: (INTERPERSONAL COMMUNICATION)

Course Code: **BSS305**

Credit Units: **01**

COURSE OUTCOMES (COs):

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge of strategies for developing a healthy interpersonal communication.
2. Recognize the importance of transactional analysis, script analysis.
3. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management.
4. Enhance personal effectiveness and performance through effective interpersonal communication.

FLT 301/ 311 FOREIGN LANGUAGE FRENCH
Semester 3 Course Code: FLT 301/311 (Tech French)

Credit Units: 02

COURSE OUTCOMES:

1. Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
2. Students will be able to read and interpret small texts .
3. Students will be able to communicate in small sentences in writing, self introduction, family description etc.
4. Students will be able to communicate in small sentences in oral, self introduction, family description etc
5. To understand and present the time schedule and to tell the time
6. To understand and draft a short biography and to present a scientist
7. To understand an online conversation and read a program and the timings.
8. To propose an outing and to accept an outing.
9. To leave a message on the answering machine

FLG 301/311 FOREIGN LANGUAGE GERMAN
Semester 3: Course Code: FLG 301/311

Credit units : 02

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

After successful completion of this semester, students will be able to:

- describe furniture in a room.
- ask question related to time like when, from when etc.
- tell time (formal and informal)
- how to make calls on phone
- can excuse for cancel appointments.
- speak about their daily routine.

FLS 301/311 FOREIGN LANGUAGE SPANISH
Semester 3: Course Code: FLS 301/311

Credit units : 02

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language

- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.
 - To enable the students to talk about a place like, class room, market, neighborhood and location of thing with the use of prepositions.
 - To talk about one's likes/dislikes, how one is feeling, to express opinions, pain and illness.
 - Time and date
 - Speaking about prices/currency/ market and quantity.
 - Counting above 100,
 - To discuss near future plans

FLC 301/ 311 FOREIGN LANGUAGE CHINESE

Semester - III

Course Code: FLC- 301/311

Credit Units: 02

Course Objectives:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.

Students will be able to communicate in small sentences in oral, self introduction, family description etc

On the completion of third semester the students will be able to attain the proficiency of HSK-I and they will be able to

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters given in the text.
- Write Chinese Characters and sentences.
- Speak Chinese dialogues from various fields of day to day life.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Carry out conversation in the target language.
- Manipulate basic grammatical structures such as: 在, 是, 有 sentence, etc.
- Master and use most essential vocabulary items of day to day use and programme specific vocabulary; approx 100 Characters including 50 characters of HSK level -I.

BID 401 DESIGN - IV

Course Code: BID 401

Credit Units: 09 L-0/ST-6/P-0
hours: 06

Teaching

A. COURSE OUTCOME

CO 1 :	Investigate the nature of the problem by analyzing the project brief, data collected from literature studies, site visits, case studies and other specific studies.
CO 2 :	Create design concepts for the given project based on the developed understanding of the project.
CO 3 :	Apply the learning of previous semesters and other allied subjects of the semester
CO 4 :	Develop the architectural project in terms of architectural drawings, models, etc. with all the given requirements.

BID 402 MATERIALS AND CONSTRUCTION TECHNIQUES - IV

Course Code: BID 402 Credit Units: 03 L-1/ST-1/P-1 Teaching hours: 03

COURSE OUTCOME

CO 1	To illustrate the application of metal as construction material.
CO 2	To demonstrate the various properties & characteristics of basic building materials such as steel & aluminum.
CO 3	To demonstrate the application of steel and aluminum in actual building construction.
CO 4	To elucidate the knowledge of various construction details of foundations, staircase & door window built in metal.
CO 5	To indicate knowledge of steel trusses.

BID 403 ART AND GRAPHICS – IV

Course Code: BID 403 Credit Units: 01 L-0/ST-0/P-2 Teaching. Hours: 02

COURSE OUTCOME:

CO 1 :	To develop the understanding of various most relevant Rendering to present drawings/ideas/expression for the purpose of a Design Project
CO 2 :	To create ability to identify the appropriate scale, proportion, aesthetic sense & balance between various elements/ components of social, economic, cultural and environmental aspects of design and to develop ability to represent the same with hand drawings/sketches etc.
CO 3:	To develop the ability of lateral thinking required for visualizing the balance between various building materials /colors & elements.
CO 4 :	To develop ability to create better design solutions in an effective way by enhancing the observation of shades and learning skills through existing structures, field study.
CO 5:	To build ability to communicate effectively through graphical presentations and make the best use of most effective presentation skills while working in interdisciplinary groups.

--	--

BID 404 GRAPHIC SKILLS – IV

Course Code: BID 404 Credit Units: 02 L-0/ST-0/P-4 Teaching Hours: 04

COURSE OUTCOME:

CO 1	Remember various tools or shorthand commands used in SketchUp, AutoCAD-3D, V-Ray.
CO 2	Understand to develop higher-quality, more accurate architectural designs, and models; use tools specifically built to support 3D design- creation- rendering- animation based application.
CO 3	Apply the knowledge of various aspects of building Services & Construction techniques into 3D designs.
CO 4	Analyse the importance of 3D design- creation- rendering- animation based application in the field of Architecture and construction industry.
CO 5	Evaluate 3D Modelling based design on critical thinking and problem solving skills.
CO 6	Create 3D design models of an Architectural Project

BID405 FURNITURE DESIGN WORKSHOP-II

Course Code: BID 405 Credit Units: 01 L-0/ST-0/P-2 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	To develop the understanding of various most relevant Rendering to present drawings/ideas/expression for the purpose of a Design Project
CO 2 :	To create ability to identify the appropriate scale, proportion, aesthetic sense & balance between various elements/ components of social, economic, cultural and environmental aspects of design and to develop ability to represent the same with hand drawings/sketches etc.
CO 3:	To develop the ability of lateral thinking required for visualizing the balance between various building materials /colors & elements.
CO 4 :	To develop ability to create better design solutions in an effective way by enhancing the observation of shades and learning skills through existing structures, field study.
CO 5:	To build ability to communicate effectively through graphical presentations and make the best use of most effective presentation skills while working in interdisciplinary groups.

BID 406 BUILDING SERVICES-III (Acoustical System)

Course Code: BID 406
hours: 02

Credit Units: 02

L2/ST-0/P-0 Teaching

COURSE OUTCOME:

CO 1	Understand the process and are able to manage building acoustical services provisions in construction sites.
CO 2	Synchronize the construction activities with installation of building services.
CO 3	Select the suitable system for particular requirements of buildings
CO 4	Understanding the importance of sound energy and its impact on building design and also able to control noise within the interior and from exterior sources.
CO 5	Plan and able to design and read acoustical layout required for different types of buildings

Domain Elective-II

BID 408 INNOVATIVE MATERIALS FOR FINISHES

Course Code: BID 408
02

Credit Units: 02 L-2/ST-0/P-0

Teaching hours:

COURSE OUTCOME:

CO 1	To describes the usage of electronics, safety equipment's and IT equipment's and to recognize the computer based 3D modelling,4D/6D
CO 2	To converts regular interiors into intelligent interior consists of the use of high – tech office automation systems to render the operation of a company more efficient
CO 3	To identifies the application of intelligent interiors like residence, office and other public spaces. To compare the contemporary design and intelligent design and energy consumption and optimization system.
CO 4	To criticize various interior spaces, building services like HVAC, lighting, water supply etc. using computer modulation and programming system. And cost of installation versus service output.

BID 409 INTERIOR DOCUMENTATION

Course Code: BID 409 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02

COURSE OUTCOME

CO 1	Understand the design intent of the architect
CO 2	Be able to read construction drawings.
CO 3	Communicate with consultants and vendors.
CO 4	Develop and convert the design intent into a set of good for construction drawings.

BID 410 BARRIER FREE SPACE PLANNING FOR INTERIORS

Course Code: BID 410 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	To learn about Importance of Barrier free Architecture and uses in various types of buildings.
CO 2	To know standards and norms for the Barrier free design.
CO 3	To understand the importance of Barrier free design using Case studies of Design
CO 4	To Evaluate existing public building and residential building using norms and Standards
CO 5	To Redesign existing public building using norms and Standards

AND 004 AANANDAM-IV

Course Code: AND 004 Course Type: Compulsory Credit Units: 02

COURSE OUTCOME:

The student should develop:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
5. Cooperative and Communication skills and leadership qualities
6. Critical thinking, Confidence and Efficiency

BCS 401 COMMUNICATION SKILLS II

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS 401	1:0:0	1	1

COURSE OUTCOME:

CO 1	Identify steps to professional communication
CO 2	Identify the key components of meeting, agendas and meeting minutes
CO 3	Understand the key skills and behaviors required to facilitate a group discussion/presentation
CO 4	Polish current affairs & rapport building

**BEHAVIOURAL SCIENCE - IV
(RELATIONSHIP MANAGEMENT)**

Course Code: BSS 405

Credit Units: 01

COURSE OUTCOME:

At the successful completion of this course you (the student) would be able to:

1. Identify the basis of interpersonal relationship.
2. Describe the importance of interpersonal relationship and bridging individual differences.
3. Recognize the development and strategies for effective interpersonal relationship.

Explain and apply the theories of relationship concepts of impression management. **Course**

Objective:

To understand the basis of interpersonal relationship

To understand various communication style

To learn the strategies for effective interpersonal relationship

FOREIGN LANGUAGE 401 FRENCH - IV

Semester 4 Course Code: FLT 401/411 (Tech French)

Credit Units: 02

COURSE OUTCOME:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

- To do the shopping
- To ask and express one's needs
- To present one's eating habits
- To understand a label
- To ask the price
- To order at the restaurant
- To organise a meeting
- To propose to someone to do an activity
- To understand the advertisement of a conference
- To understand the names of different stations
- To speak about ones schedule
- To express one's professional wish
- To formulate a project
- To read a notice board

FLG 401/ 411 FOREIGN LANGUAGE GERMAN

Semester 4: Course Code: FLG 401/411

Credit units : 02

COURSE OUTCOMES:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

After successful completion of this semester, students will be able to:

- talk about different professions
- express positive and negative aspect of different professions.
- talk about daily routine of a job
- enquire about direction.
- use preposition in sentences.
- understand the visiting cards etc.

FLS 401/ 411 FOREIGN LANGUAGE SPANISH

Semester 4:

Course Code: FLS 401/411

Credit units : 02

COURSE OUTCOMES:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To talk about relations
- To express obligation
- To enquire about direction
- To be able to describe your locality
- Telephonic conversation etiquettes
- Dialogue between two friends/sales man and client etc.

FLC 401/411 FOREIGN LANGUAGE CHINESE

Semester - IV

Course Code: FLC- 401/411

Credit Units: 02

COURSE OUTCOME:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

On the completion of Fourth semester the students will be able to consolidate their proficiency of HSK-I and will be able to

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters given in the text.
- Write Chinese Characters, sentences and small paragraphs.
- Speak Chinese dialogues from various fields of day to day life.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Carry out conversation in the target language.
- Manipulate basic grammatical structures such as: 疑问代词.etc.
- Master and use most essential vocabulary items of day to day use and office related vocabulary; approx 70 Characters including 50 characters of HSK level –II
- Refer Chinese dictionaries.
- Translate a Chinese paragraph with the help of dictionaries and translation software.

BID 501 DESIGN - V

Course Code: BID 501

Credit Units: 12 L-0/ST-8/P-0 Teaching hours: 08

COURSE OUTCOME:

CO 1	To Recognizing the previous semester learning outcomes like anthropometric, ergonomics, space a,locations, site analysis and active and passive design consideration for the different climatic Zones
CO 2	To implementing the basics of design problem and analysis the different similar projects through Literature Studies, site visit, case studies, and other relevant studies.
CO 3	To critique the existing knowledge and attributed knowledge through student self learning and standardize them for further creation
CO 4	To produce given project based on to develop the architectural project in terms of architectural drawings, models, etc.
CO 5	To attributing the design centric theoretical knowledge and practical knowledge like case studies of the building weather applicable or not.

BID 502 MATERIALS AND CONSTRUCTION TECHNIQUES - V

Course Code: BID 502

Credit Units: 03

L-1/ST-1/P-1

Teaching hours: 03

COURSE OUTCOME

CO 1	To remember properties & application of different finishing materials like ACP, PVC, Gypsum, Glass, Fiberglass, Glass bricks, Metals, Stone, Ceramics, Exposed brick work, Paints, POP, Polish, and Varnishes etc.
CO 2	To understand the criteria of applying latest materials & construction details of different building component like flooring, false ceiling, false partition and special doors.
CO 3	To apply visual & textural properties of latest finishes & hardware's in building interiors and exterior.
CO 4	To evolve innovative designs of Interior & exterior components like flooring, false ceiling, false partition and special doors.
CO 5	To prepare construction details of designed components.

BID 503 ESTIMATION & SPECIFICATION

Course Code: BID 503

Credit Units: 02

L-2/ST-0/P-0

Teaching hours: 02

COURSE OUTCOME

CO 1	Prepare quantity estimates for buildings structures as per the specifications.
CO 2	Draft detailed specifications and work out rate analysis for all works related to building structures.
CO 3	Ascertain the quantity of materials required for construction works and interior works as per specifications.
CO 4	Prepare cost estimate and valuation of construction and interior works.

BID 504 GRAPHIC SKILLS – V

Course Code: BID 504 Credit Units: 02 L-0/ST-0/P-4 Teaching hours: 04

COURSE OUTCOME:

CO 1	To remember various tools or shorthand commands used in Autodesk Revit Architecture, 3Ds Max, Rhino and grasshopper.
CO 2	Understand to develop higher-quality, more accurate architectural designs and models; use tools specifically built to support Building Information Modelling workflows.
CO 3	To apply the knowledge of Structural, Mechanical, Electrical, Plumbing, Communications, Security, Fire Protection system into BIM-based designs.
CO 4	To analyse the importance of Revit Architecture in the field of Architecture and construction industry.
CO 5	To evaluate Building Information Models based on critical thinking and problem solving skills.
CO 6	To create Building information modelling solutions and parametric models.

BID 505 INTERIOR PROJECT MANAGEMENT

Course Code: BID 505 Credit Units: 02 L-2/ST-0/P- 0 Teaching hours: 02

COURSE OUTCOME:

CO 1	To Recognizing the previous semester learning outcomes like anthropometric, ergonomics, space a,locations, site analysis and active and passive design consideration for the different climatic Zones
------	---

CO 2	To implementing the basics of design problem and analysis the different similar projects through Literature Studies, site visit, case studies, and other relevant studies.
CO 3	To critique the existing knowledge and attributed knowledge through student self learning and standardize them for further creation
CO 4	To produce given project based on to develop the architectural project in terms of architectural drawings, models, etc.
CO 5	To attributing the design centric theoretical knowledge and practical knowledge like case studies of the building weather applicable or not.

BID 506 BUILDING SERVICES-IV (Fire Safety & Security Systems)

Course Code: BID 506 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	To analyse the importance of fire safety in a building.
CO 2	To understand the different aspects of materials in terms of fire safety.
CO 3	To accumulate awareness of fire safety norms
CO 4	To be able to do comparison between different fire detection systems and cctv equipment.
CO 5	To design a fire fighting and cctv system for a building.

Domain Elective-III

BID 507 MATERIAL APPRECIATION

Course Code: BID 507 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	To Recognizing the previous semester learning outcomes like anthropometric, ergonomics, space a,locations, site analysis and active and passive design consideration for the different climatic Zones
CO 2	To implementing the basics of design problem and analysis the different similar projects through Literature Studies, site visit, case studies, and other relevant studies.
CO 3	To critique the existing knowledge and attributed knowledge through student self learning and standardize them for further creation
CO 4	To produce given project based on to develop the architectural project in terms of architectural drawings, models, etc.

CO 5	To attributing the design centric theoretical knowledge and practical knowledge like case studies of the building weather applicable or not.
------	--

BID 508 ENERGY CONSERVATION ARCHITECTURE

Course Code: BID 508

Credit Units: 02 L-2/ST-0/P-0

Teaching hours: 02

COURSE OUTCOME:

CO 1	demonstrate a good ability to calculate the energy balance of buildings
CO 2	evaluate different opportunities to save energy with measures regarding both building technology and building services engineering in both new and existing buildings
CO 3	assess whether there is a potential conflict between energy conservation and indoor climate for different energy saving measures
CO 4	analyze and interpret results both critically and independently regarding energy and indoor climate in buildings based on values from both calculations and measurements
CO 5	demonstrate a good ability to work independently on investigating energy and indoor climate issues for buildings and to present the results both orally and in writing in well-prepared technical reports.

BID 509 CLIMATE RESPONSIVE INTERIORS

Course Code: BID 509

Credit Units:02 L-2/ST-0/P-0

Teaching hours: 02

COURSE OUTCOME:

CO 1 :	To understand how the contexts of a region have an impact on vernacular architectural forms.
CO 2 :	To explore various traditional materials and construction techniques used in vernacular architectural forms.
CO 3 :	To acquire knowledge on traditional materials and construction techniques which can be used in the design of built spaces in the modern context.
CO 4 :	Understanding the impact of context of a region over architectural forms and expressions will lead to sensible and context specific and sensitive design solutions.

AND 005 AANANDAM-V

Course Code: AND 005

Credit Units: 02 L/0-ST/0-P/4

Teaching hours: 04

Course Objectives:

The objective of this course is to make students aware and empathetic about community issues and to increase interaction among students as well as with the community to enlarge social network.

BCS 501 COMMUNICATION SKILLS - III

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS501	1:0:0	1	1

COURSE OUTCOME:

CO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CO 3	Demonstrate proficiency in the use of written communication.
CO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BSS 504 BEHAVIOURAL SCIENCE V

(Group Dynamics and Team Building)

Course Code: BSS 501

Credit Units: 01

Teaching hours: 01

COURSE OUTCOME:

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them.

FLF 501 FOREIGN LANGUAGE FRENCH - V

Semester 5 Course Code: FLT 501/511 (Tech French)

Credit Units: 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

- To understand the TP
- To understand an experiment
- To read the chemical equations
- To identify the chemical formulas
- To understand the instructions of a project
- To express a desire
- To understand a testimony
- To understand and read an exercise of mathematics
- Read and note the equations

FLG 501 GERMAN - V

Course Code: FLG 501/511

Credit Units: 02

Teaching hours: 02

COURSE OUTCOME:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

After successful completion of this semester, students will be able to:

- tell where they work and live
- tell location of their offices and house
- explain, how they reach their work place

FLS 501SPANISH - V

Semester 5:

Course Code: FLS 501/511

Credit units : 02

Course Objective:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To talk about a pre decided plan
- To talk about a plan yet to materialize
- To propose a plan
- To talk about what they have done today/during vacations etc.

- Reading texts about Spanish festivals
- Writing composition about Festivals

FLC 501 CHINESE V

Semester - V

Course Code: FLC- 501/511

Credit Units: 02

Course Objectives:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

On the completion of Fifth semester the students will be able to

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters given in the text.
- Write Chinese Characters and sentences and small paragraphs.
- Speak Chinese dialogues from various fields of day to day life. sour....etc.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Carry out conversation in the target language based on the topics learnt.
- Manipulate basic grammatical structures.
- Master and use most essential vocabulary items of day to day use, programme specific and internet related vocabulary; approx 80 Characters including 50 characters of HSK level –II
- Type Chinese document. “de”
- Express their opinion and ask opinion of others in Chinese “suiran ... danshi....” ..etc.

BID 601 DESIGN - VI

**Course Code: BID 601
08**

Credit Units: 12

L-0/ST-8/P-0

Teaching hours:

COURSE OUTCOME “guozhe” “haishi”

CO 1	Understanding the scope, importance and need of the design. Learn the principles, methods, process, and concepts of design. Appreciate the requirements of design guidelines.
CO 2	Evaluate architectural design concepts’ applicability in various contexts by studying cases.
CO 3	Apply the learning of the previous semester and theoretical or practical design to evolve a unique concept for a real architectural design project.

CO 4	Evolve specific architectural design guidelines, policies, and recommendations for the project.
CO 5	Create a design proposal for the given project in terms of presentation drawings, 3D model; 3D views, etc., as per the given requirements.

BID 602 DETAILING OF INTERIOR I

Course Code: BID 602 Credit Units: 03 L-1/ST-1/P-1 Teaching hours: 03

COURSE OUTCOME:

CO 1	Understand the design intent of the architect.
CO 2	Be able to read construction drawings.
CO 3	Communicate with consultants and vendors.
CO 4	Develop and convert the design intent into a set of good for construction drawings.

BID 603 PROFESSIONAL PRACTICE

Course Code: BID 603 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	To remember the project management techniques for handling construction projects.
CO 2	To apply knowledge of charts & critical path networking for planning the construction activities.
CO 3	To analyse the resource allocation requirements for various construction projects.
CO 4	To formulate project schedules & plans for typical civil construction projects.

BID 604 DISSERTATION

Course Code: BID 604 Credit Units: 02 L-0/ST-0/P-4 Teaching Hours : 04

COURSE OUTCOME:

CO 1	Identification of research area and preparation of research proposal
CO 2	Literature study and data collection

CO 3	Analysis of site and data
CO 4	Prepare research methodology
CO 5	Preparation of reports and drawings

BID 605 BUILDING SERVICES-V (HVAC Systems)

Course Code: BID 605

Credit Units: 02 L-2/ST-0/P-0

Teaching hours: 02

COURSE OUTCOME:

CO 1	Understanding the scope, importance and ethics of the field of building services. Appreciate the requirements of different types of building services. Learn the concepts of the building services systems
CO 2	To evaluate the quantity and quality of services to be provided.
CO 3	Identify the various appliances, fixtures and appurtenances. Learn about the popular techniques of the building sciences.
CO 4	Study about the thumb rules and the byelaws of the services and learn how to apply the knowledge while designing the layout of the buildings and its execution
CO 5	Develop reports and assignments containing write-ups, and sketches to express their understanding of building services during lectures and site visits.

Domain Elective-IV

BID 607 Intelligent Buildings

CO 1	To describes the usage of electronics,safety equipment's and IT equipment's and to recognize the computer based 3D modelling,4D/6D
CO 2	To converts regular interiors into intelligent interior consists oF the use of high–tech office automation systems to render the operation of a company more efficient
CO 3	To identifies the application of intelligent interiors like residence, office and other public spaces. To compare the contemporary design and intelligent design and energy consumption and optimization system.
CO 4	To criticize various interior spaces, building services like HVAC, lighting, water supply etc. using computer modulation and programming system. And cost of installation versus service output.

BID 608 VAASTU IN ARCHITECTURE

Course Code: BID 608 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	Understand the philosophy and believes in Vastu
CO 2	Learn the relationship between humans and cosmos
CO 3	Learn the concepts of vedic vastu
CO 4	Learn the site planning and planning approaches of vastu
CO 5	Produce building plans as per vastu

BID 609 PROFESSIONAL PRESENTATION TECHNIQUES

Course Code: BID 609 Credit Units: 02 L-2/ST-0/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	Identify different professional bodies and Statutory Bodies in India, their functioning, importance and role towards the profession and role of the professional towards these bodies
CO 2	Analyse and critically evaluate the requirements of a professional office/ corporate office to be ready to establish/join one.
CO 3	Select and implement one of the practice types to be able to establish one's own practice
CO 4	Demonstrate awareness of laws and bylaws related to the profession

AND 006 AANANDAM-VI

Course Code: AND 006 Credit Units: 02 L/0-ST/0-P/4 Teaching hours: 04

COURSE OUTCOME:

The objective of this course is to make students aware and empathetic about community issues and to increase interaction among students as well as with the community to enlarge social network.

BCS 601 COMMUNICATION SKILLS - IV

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS601	1:0:0	1	1

COURSE OUTCOME:

CO 1	Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self orientation.
CO 2	Showcase their leadership skills with effective team work.
CO 3	Outline the basic etiquettes in expressing their personality individually and in group.

**BSS 605 BEHAVIOURAL SCIENCE – VI
(STRESS AND COPING STRATEGIES)****Course Code: BSS 605****Credit Unit: 01****COURSE OUTCOMES (COs)**

At the successful completion of this course you (the student) would be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyze symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FOREIGN LANGUAGE 601**Semester 6 Course Code: FLT 601 (Tech French)****Credit Units: 02****COURSE OUTCOME:**

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To understand the essentials of an interview
- To present one research
- To present one university and professional course
- To speak about the professional projects
- To understand a remarkable topic
- To understand and ask questions
- To describe a person
- The content and the method of the report
- To make a plan of the report
- To write an introduction
- To understand a short technical message
- To reply to a survey

FLG601 GERMAN- VI**Semester 6:****Course Code: FLG 601****Credit units : 02**

COURSE OUTCOME:

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

After successful completion of this semester, students will be able to:

- express their likes and dislikes (buying groceries)
- ask price and quantity
- express their likes and dislikes in terms of COths
- buy COths in the shopping mall

FLS 601 SPANISH- VI**Semester 6: Course Code: 601****Credit Units : 02****COURSE OUTCOME:**

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.
- To express future plans and intentions
- To talk about tourist destination in Spain and India
- Reading texts about Spanish historical monuments
- To talk about dance and music.
- Reading text about Spanish Cities
- Writing email to your friend/family members

FLC 601 CHINESE VI**Semester - VI****Course Code: FLC-601****Credit Units: 2****COURSE OUTCOME:**

- Students will hone intermediate language skills such as reading, writing, speaking, listening & interactive) in the language
- Students will be able to read and interpret small texts of intermediate level.
- Students will be able to communicate in small sentences in Simple Future and Past tenses .
- Students will be able to communicate in oral in small sentences in Simple Future and Past tenses. etc.

On the completion of Sixth semester the students will be able to attain the proficiency of **HSK-II**. They will be able to:

- Read Chinese words, phrases and simple sentences both in Pin Yin and Characters given in the text.
-

- Write Chinese Characters and sentences and small paragraphs.
- Speak Chinese dialogues from various fields of day to day life.
- Listen and understand simple Chinese words and dialogues used in syllabi.
- Carry out effective conversation in the target language.
- Manipulate basic grammatical structures.
- Master and use most essential vocabulary items of day to day use: approx 70 Characters including 50 characters of HSK level –II
- Put up suggestions, explain reason, and do comparison.
- Do translation with the help of dictionaries and translation software.

BID 701 PROFESSIONAL TRAINING

Course Code: BID 701

Credit Units: 21 NTCC

Teaching hours : 0

COURSE OUTCOME

CO 1	To make students acquire the practical experience which will concoct them for their likely responsibilities, immediately after qualifying B. Arch. Course.
CO 2	Students are expected to learn with the realm of architectural discipline ranging from generation of idea, preparation of drawings to the final execution of design on site.

BID 801 INTERIOR THESIS PROJECT

Course Code: BID 801

Credit Units: 10 L-4/ST-6/P-0

Teaching Hours: 10

COURSE OUTCOME:

CO 1	To illustrate the ability to designs a project responsive to the contextual and program requirements
CO 2	To demonstrate systematic & methodological learning from various stages of the research & design process.
CO 3	To communicate the ideas clearly using writing, verbal and visual presentation
CO 4	To evaluate & compare data gathered from pre-design research
CO 5	To demonstrate application of various codes, standardsand regulations governing the project. ·
CO 6	To illustrate the ideas clearly using a detailed physical Model.

BID 802 DETAILING OF INTERIOR -II

Course Code: BID 802

Credit Units: 05 L-2/ST-3/P-0

Teaching hours: 05

COURSE OUTCOME:

CO 1	Understand the design intent of the architect.
CO 2	Be able to read construction drawings.
CO 3	Communicate with consultants and vendors.
CO 4	Develop and convert the design intent into a set of good for construction drawings.

Domain Elective -V

BAR803 LIGHTING IN INTERIORS

Course Code: BID 803 Credit Units: 02 L-1/T-1/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1 :	Understand the basic of sound energy,process and are able to manage building acoustical services provisions in construction sites.
CO 2 :	Examine the developments in the use of materials with different eras
CO 3 :	Analyse the spaces proportions, and sections, motifs of typologies of buildings such as communal hall, residences etc.

BID 804 MODULAR CONSTRUCTION TECHNOLOGY

Course Code: BID 804 Credit Units: 02 L-1/T-1/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	Analyse productivity and economics in modular construction techniques.
CO 2	Implement modular construction practices.
CO 3	Understand the limitations of modular construction techniques.
CO 4	Understand reliable proportioning concepts in modular construction techniques.

BID 805 FILM & TELEVISION SET DESIGN

Course Code: BID 805 Credit Units: 02 L-1/T-1/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	A comprehensive knowledge and understanding of light, exposure and colour , and their application in architectural lighting
CO 2	An advanced understanding of theories of photographic composition, balance and weight

CO 3	A knowledge of the history of architectural photography, with an awareness of the contextual boundaries within, and outside of, the genre.
CO 4	An advanced ability to use film and digital cameras to capture and create outstanding photographs of architecture, form and space
CO 5	A comprehensive knowledge and understanding of digital photographic image manipulation and processing techniques using industry standard software programmes

Elective-VI

BID 806 INTELLIGENT INTERIORS

Course Code: BID 806

Credit Units: 02 L-1/T-1/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	To understand the difference between conventional design approach and Digital design process.
CO 2	To understand use of different software, digital design tools and techniques for different-different digital design processes.
CO 3	To apply digital design tools and techniques for the development of complex products, building interiors and exterior.
CO 4	To evolve innovative digital architectural components by using logical and mathematical model.
CO 5	To create physical structure evolved by digital design process.

BID 807 INTERIOR LANDSCAPE

Course Code: BID 807

Credit Units: 02 L-1/T-1/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	Characteristics of various types of plants/trees/ shrubs/ creepers/ edges/ hedges etc., and their suitability for landscaping; plant selection criteria, planting design.
CO 2	Definition, scope, landscape architecture in relation to architecture. Landscape design elements and principles, historical review of gardens in India, Persia, Japan, Italy, France and England, contemporary landscape design
CO 3	To know Landscape design element such as sculptures/ benches/ umbrellas/ fences/ posts etc. their design, selection and incorporation in landscape/ site planning schemes. Characteristics of various types of plants/ trees/shrubs/ creepers/ edges/ hedges etc., and their suitability for landscaping; plant selection criteria, planting design.
CO 4	To Evaluate the topography/ slope, hydrology/ drainage, geology/ soil, vegetation,

	views – on site/ off site and then consideration in design and planning.
CO 5	To design the outside space in accordance with the understandings and elements of site planning.
CO 6	To review, reflect, re-interpret and refine the effectiveness of the designed outdoor spaces

BID 808 DESIGN OF LOGO & SIGNAGES

Course Code: BID 808

Credit Units: 02 L-1/T-1/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	Solve complex design problems using creative thinking and analytical skills
CO 2	Develop and demonstrate their understanding and skillful use of the elements and principles of visual design
CO 3	Gain skill to use the digital tools as a powerful means of communication for creation, modification & presentation
CO 4	Learn ways to apply aesthetic sensibilities into their works and explore ways to balance between formal theories with practical applications.

Domain Elective-VII

BID 809 INTERIOR JOURNALISM

Course Code: BID 809

Credit Units: 02 L-1/T-1/P-0

Teaching hours: 02

COURSE OUTCOME:

CO 1	Identification of research area and preparation of research proposal
CO 2	Literature study and data collection
CO 3	Analysis of site and data
CO 4	Prepare research methodology
CO 5	Preparation of reports and drawings

BID 810 COST EFFECTIVE INTERIORS

Course Code: BID 810

Credit Units: 02 L-1/T-1/P-0 Teaching hours: 02

COURSE OUTCOME:

CO 1	Appreciate the need for achieving low costs in construction for increasing affordability.
CO 2	Determine the factors that add up to and increase project costs.
CO 3	Learn the cost-effective space planning and architectural design strategies for both urban and rural context
CO 4	Develop acumen for searching material alternatives for building construction.
CO 5	Compile existing cost-effective construction techniques that can be applied in projects to control costs.

BAR 811 SPECIALIZED INTERIORS**Course Code: BID 811****Credit Units:02 L-1/T-1/P-0****Teaching hours: 02****COURSE OUTCOME:**

CO 1	To understand the difference between conventional design approach and Digital design process.
CO 2	To understand use of different software, digital design tools and techniques for different-different digital design processes.
CO 3	To apply digital design tools and techniques for the development of complex products, building interiors and exterior.
CO 4	To evolve innovative digital architectural components by using logical and mathematical model.
CO 5	To create physical structure evolved by digital design process.

AND 007 AANANDAM-VII**Course Code: AND 007****Credit Units: 02L/0-ST/0-P/4****Teachinghours: 04****COURSE OUTCOME:**

The objective of this course is to make students aware and empathetic about community issues and to increase interaction among students as well as with the community to enlarge social network.



AMITY UNIVERSITY
R A J A S T H A N

**AMITY SCHOOL OF FASHION TECHNOLOGY
(ASFT)**

**BACHELOR OF DESIGN
(B.DES.) IN FASHION DESIGNING**

12817

**Duration – 4 Years Full
Time**

Programme Structure

Credit Summery

BACHELOR OF DESIGN (B.DES.) IN FASHION DESGINING							
(04 Years/ 08 Semesters)							
Sem.	Core Course (CC)	Domain Electives (DE)	Value Added Course (VAC)	Open Electives (OE)	Non- Teaching Credit Courses (NTCC)	Anandam	Total
I	17	-	4	-	-	2	23
II	18	-	4	3	-	2	27
III	11	3	4	3	-	2	23
IV	14	3	4	3	-	2	26
V	12	3	4	3	-	2	24
VI	11	3	4	3	-	2	23
VII	8	3	4	3	3	2	23
VIII	6	-	-	-	12	-	18
Total	97	15	28	18	15	14	187

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non - Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

After the completion of B. Design(FD) program students will be able to:

1. Utilize their artistic & technological abilities to support the innovation in research skills in the field of Textile and Fashion result from a rigorous process that address specific design challenges.
2. Develop a systematic expertise and critical approach to problem-solving at all levels of the design process, product development, marketing, branding and entrepreneurship.
3. Demonstrate professionalism relates to concern fashion design to a broader socio economic, historical, environmental context and quality work effectively collaborating with various teams.
4. Utilize their artistic & technological abilities to support the innovation of future design, editing ideas and implementation process.

Program Structure

AMITY SCHOOL OF FASHION TECHNOLOGY(ASFT)

Bachelor of Design (B.des.) in fashion designing

First Semester

Code	Course	Category	L	T	P/FW	Credits	Remarks
BFD101	Introduction to textile -I	CC	2	-	-	2	
BFD102	Basics of Fashion	CC	1	-	-	1	
BFD103	History of Fashion-I	CC	2	-	-	2	
BFD104	Color Studies	CC	2	-	-	2	
BFD105	Basic Designing	CC	1	-	-	1	
BFD106	Traditional Textile	CC	2	-	-	2	
BFD127	Computer Applications	CC	-	-	2	1	
BFD128	Basic Drawing Media Exploration	CC	-	-	4	2	
BFD129	Garment manufacturing techniques & fabric estimation –I	CC	-	-	4	2	
BFD121	Introduction to textile-I	CC	-	-	2	1	
BFD130	Material studies	CC	-	-	2	1	
AND001	ANANDAM-I	NTCC	-	-	-	2	
Value Added Courses							
BCS 101	English	VA	1	-	-	1	
BSS 104	Behavioral Science – I	VA	1	-	-	1	
	Foreign Language - I	VA	2	-	-	2	
FLN 101	French						
FLG 101	German						
FLS 101	Spanish						
FLC101	Chinese						
Total-						23	

Second Semester

Code	Course	Category	L	T	P/FW	Credits	Remarks
BFD202	Introduction to textile - II	CC	2	-	-	2	
BFD203	History of Fashion-II	CC	2	-	-	2	
BFD224	Computer Aided Design – I	CC	-	-	4	2	
BFD225	Fashion Art Illustration-I	CC	-	-	4	2	
BFD226	Fashion Model Drawing – I	CC	-	-	4	2	
BFD227	Garment manufacturing techniques & fabric estimation-II	CC	-	-	4	2	
BFD228	Elementary Pattern Making	CC	-	-	4	2	
EVS 002	Environmental Science	CC	2	-	-	4	
AND002	ANANDAM-II	NTCC	-	-	-	2	
Domain Electives							
BFD231	Elements of Fashion	OE	3	-	-	3	
Value Added Course							
BCS 201	English	VA	1	-	-	1	
BSS 204	Behavioral Science – II	VA	1	-	-	1	
Foreign Language - II		VA	2	-	-	2	
FLN 201	French						
FLG 201	German						
FLS 201	Spanish						
FLC 201	Chinese						
Total						25	

Third Semester

Code	Course	Category	L	T	P/FW	Credits	Remarks
BFD 301	Textile Testing	CC	2		-	2	
BFD 322	Computer Aided Design – II (Lab)	CC	-	-	4	2	
BFD 323	Fashion Model Drawing- II(Lab)	CC	-	-	4	2	
BFD 321	Textile Testing (Lab)	CC	-	-	2	1	
BFD 325	Pattern Making& Garment Construction - I (Lab)	CC	-	-	6	3	
BFD 326	Surface design & Ornamentation Techniques (Lab)	CC	-	-	2	1	
AND003	ANANDAM-III	NTCC	-		4	2	
Domain Elective							
BFD330	Social and Psychological Aspects of Clothing	DE	3	-		3	
Open Electives							
BFD330	Social and Psychological Aspects of Clothing	OE	3	-		3	
Value Added Courses							
BCS 301	Communication Skills – I	VA	1	-	-	1	
BSS 304	Behavioral Science – III	VA	1	-	-	1	
Foreign Language - III							
FLN 301	French	VA	2	-	-	2	
FLG 301	German						
FLS 301	Spanish						
FLC 301	Chinese						
Total-						23	

Fourth Semester

Code	Course	Category	L	T	P/FW	Credits	Remarks
BFD 401	Knitting and Weaving Technology	CC	2	-	-	2	
BFD402	Printing and Dyeing Technology	CC	2	-	-	2	
BFD403	Fashion Trend & Forecasting	CC	1	-	-	1	
BFD423	Fashion Trend & Forecasting	CC	-	-	2	1	
BFD 425	Computer Aided Design – III	CC	-	-	4	2	
BFD 427	Pattern Draping	CC	-	-	4	2	
BFD422	Printing and Dyeing Technology	CC	-	-	2	1	
BFD 428	Pattern Making & Garment Construction - II	CC	-	-	6	3	
AND004	ANANDAM-IV	NTCC	-	-	-	2	
Domain Electives							
BFD424	Design Process	DE	-	-	2	1	
BFD404	Design Process	DE	2	-	-	2	
Open Electives							
BFD431	Fashion Management	OE		3	-	3	
Value Added Courses							
BCS 401	Communication Skills – II	VA		1	-	1	
BSS 404	Behavioral Science - IV	VA		1	-	1	
Foreign Language – IV		VA		2	-	2	
FLN 401	French						
FLG 401	German						
FLS 401	Spanish						
FLC 401	Chinese						
Total-						26	

Fifth Semester

Code	Course	Category	L	T	P/FW	Credits	Remarks
BFD 501	Care and storage of apparel & Textiles	CC	1	-	-	1	
BFD 502	Fashion Promotion & Brand design	CC	1	-	-	1	
BFD 523	Computer Aided Design – IV	CC	-	-	4	2	
BFD 524	Accessories Design and Development	CC	-	-	4	2	
BFD 525	Pattern Making & Garment Construction - III	CC	-	-	6	3	
BFD 560	Integrated Design Project – I	CC	-	-	6	3	
AND005	ANANDAM-V	NTCC	-	-	-	2	
Domain Electives							
BFD530	Fashion Styling	DE			6	3	
Open Elective							
BFD531	Fashion Marketing & Merchandising	OE			6	3	
Value Added Courses							
BCS 501	Communication skills – III	VA	1	-	-	1	
BSS 504	Behavioral Science -V	VA	1	-	-	1	
Foreign Language -V		VA	2	-	-	2	
FLN 501	French						
FLG 501	German						
FLS 501	Spanish						
FLC 501	Chinese						
Total-						24	

Sixth Semester

Code	Course	Category	L	T	P/FW	Credits	Remarks
BFD 601	Contemporary Art Appreciation	CC	1	-	-	1	
BFD 602	Design Research Method & Process	CC	1	-	-	1	
BFD 623	Pattern Making and Garment Construction-IV	CC	-	-	6	3	
BFD 624	Range Development	CC	-	-	6	3	
BFD 660	Integrated Design Project-II	CC	-	-	6	3	
AND005	ANANDAM-VI	NTCC	-	-	-	2	
Domain Elective							
BFD630	Fashion photography	DE			6	3	
Open Elective							
BFD 631	Contemporary Fashion Studies	OE	3			3	
Value Added							
BSC 601	Communication Skills – IV	VA	1	-	-	1	
BSS 604	Behavioral Science – VI	VA	1	-	-	1	
FLN 601 FLG 601 FLS 601 FLC 601	Foreign Language - VI French German Spanish Chinese	VA	2	-	-	2	

Total-	23	
---------------	-----------	--

Seventh Semester

Code	Course	Category	L	T	P/FW	Credits	Remarks
BFD 701	Entrepreneurship Management with Project	CC	1		-	1	
BFD 702	Design Ethics and Intellectual Property Rights	CC	1		-	1	
BFD 723	Pattern Making and Garment Construction-II	CC	-		6	3	
BFD 724	Portfolio and Design Development	CC	-		6	3	
BFD 750	Internship	NTCC	-	-	-	3	15 days Internship
AND007	ANANDAM-VII	NTCC	-	-	4	2	
Domain Elective							
BFD730	Fashion Communication	DE	3	-	-	3	
Open Elective							
BFD731	Consumer behavior & fashion marketing	OE	3	-	-	3	
Value Added Course							
BCS 701	Communication Skills – V	VA	1	-	-	1	
BSS 704	Behavioral Science – VII	VA	1	-	-	1	

FLN 701 FLG 701 FLS 701 FLC 701	Foreign Language - VII French German Spanish Chinese	VA	2	-	-	2	
Total-						23	

Eight Semester

Code	Course	Category	L	T	P	Credits
BFD-850	Internship	NTCC	-	-	-	12
BFD-860	Graduation Design Collection	CC	-	-	12	6
Total-						18

COURSE OUTCOMES

AMITY SCHOOL OF FASHION TECHNOLOGY (ASFT)

BACHELOR OF DESIGN (B.DES.) IN FASHION DESIGNING

BFD101 – INTRODUCTION TO TEXTILE-I

Upon successful completion of the course, the students will be able to:

1. Identify the Fibers and its properties.
2. Understand the structure of yarn and its importance.

BFD102 – BASICS OF FASHION

Upon successful completion of the course, the students will be able to:

1. Understand and get acquainted to the basic fashion terminologies.
2. Explore, innovate and relate to fashion terminologies and their application.
3. Develop the skill to understand Fashion Market segmentation and Customer types.
4. Understand various Fashion Wear and their distinguishing factors.
5. Get brief knowledge of fashion career scope that would be useful later in to choose the relevant area of fashion.

BFD103 – HISTORY OF FASHION -I

Upon successful completion of the course, the students will be able to:

1. Learn importance of art and application in various disciplines of art education.
2. Understand culture and civilization from several different time periods.
3. Explore characteristics of the art of the ancient cultures of India.
4. Understand the historical and cultural factors.
5. Understand contribution of the respective factors to develop styles and iconography.

BFD104 – COLOUR STUDIES

Upon successful completion of the course, the students will be able to:

1. Learn importance and property of color.
2. Explore characteristics of color and its scientific approach.
3. Understand color psychology of colors.
4. Understand color through practical applications.

BFD105 – BASIC DESIGNING

Upon successful completion of the course, the students will be able to:

1. Learn importance visual design.
2. Explore elements of design.
3. Understand principles of design.
4. Exploring different styles and designs of motifs.

BFD106 – TRADITIONAL TEXTILES

Upon successful completion of the course, the students will be able to:

1. State the Historical perspective of traditional textiles of India.
2. Describe embroidered textiles of India.
3. Classify Painted and Printed textiles of India.
4. Define woven textiles of India.

BFD121 – INTRODUCTION TO TEXTILE-I

Upon successful completion of the course, the students will be able to:

1. Acquire knowledge of various textile tests and their role.
2. Analysis of various cloths.

BFD127 – COMPUTER APPLICATIONS-I

Upon successful completion of the course, the students will be able to:

1. Acquire knowledge of computer system and its application.
2. Gain knowledge to operate different applications, including- MS Office Word, Power Point and Internet applications.
3. Learn to implement the acquired knowledge for their respective subject's project and presentation.

BFD128 – BASIC DRAWING MEDIA EXPLORATION

Upon successful completion of the course, the students will be able to:

1. Learn importance of art and application in various line forms.
2. Understand various geometric forms, light and shades.
3. Live object drawings.
4. Understand the various color media and their use.
5. Drawing different Landscapes and figures using various Media.

BFD129 – GARMENT MANUFACTURING TECHNIQUES & FABRIC ESTIMATION

Upon successful completion of the course, the students will be able to:

1. Understand the various processes involved for preparation of fabrics for clothing construction.
2. Understand the various measurement points for garment manufacturing.
3. Learn about various parts and functionality of sewing machine.
4. Get knowledge of various stitches and seams.
5. Develop the skills to manipulate the fabrics.
6. Develop the knowledge of various trimmings and fastenings.

BFD130 – MATERIAL STUDIES

Upon successful completion of the course, the students will be able to:

1. Understand various materials
2. Explore their creativity to advance level with material use.

AND001 – ANANDAM-I

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues.
2. Interaction with the community and impact on society
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network
Cooperative and Communication skills and leadership qualities
5. Critical thinking, Confidence and Efficiency

BFD202 INTRODUCTION TO TEXTILES-II

Upon successful completion of the course, the students will be able to:

1. Identify different parts of a loom and state their functions.
2. Compare and identify the different types of simple and fancy weaves
3. Explain the general properties of woven and knitted fabrics.
4. Classify non-woven textiles.

BFD203 – HISTORY OF FASHION-II

Upon successful completion of the course, the students will be able to:

1. Introduction to world textile and costumes.
2. Tell about Pre-historic textile and costume.
3. Factors influencing costume changes.

4. Tell about the latest textiles and costumes.

BFD224 – COMPUTER AIDED DESIGN-I

Upon successful completion of the course, the students will be able to:

1. Use Coral Draw software and its tools.
2. Design and illustrate in Coral Draw.
3. Develop motifs and prints.

BFD226 – FASHION MODEL DRAWING-I

Upon successful completion of the course, the students will be able to:

1. Live drawing from model.
2. Well versed knowledge about human feature with different characteristics.
3. Understand about various geometrical proportion of body and Basic structural division of body.
4. Study block figure of different head scale with different view.
5. Develop front view of male and female croquis with at least five different bodies movement.

BFD227 -GARMENT MANUFACTURING TECHNIQUES & FABRIC ESTIMATION **-II**

Upon successful completion of the course, the students will be able to:

1. Understand all the sewing techniques.
2. Use sewing machine and will have knowledge of machine and its parts.
3. Understand how to select and use fabrics while constructing a garment.

BFD228 – ELEMENTARY PATTERN MAKING-II

Upon successful completion of the course, the students will be able to:

1. Understand various terms and definitions of Pattern Making and Garment Construction.
2. Well versed knowledge about various tools and equipment's for pattern making.
3. Understand about various measurement system and critical measurement points.
4. Construction Basic Bodice pattern set.

BFD231 -ELEMENTS OF FASHION (OE)

Upon successful completion of the course, the students will be able to:

1. Tell about the basics of fashion.
2. Tell about the different fashion vocabulary.

3. Tell about Fashion forecasting and development of fashion
4. Know about the international fashion.

AND002 – ANANDAM-II

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

BFD301 – TEXTILE TESTING

Upon successful completion of the course, the students will be able to:

1. To develop an understanding of methods and techniques used to analyze textile fibers, yarns and fabrics for end use performance.
2. To acquire knowledge and understanding of various structural properties of textiles and relate them to end use fabric performance and product
3. To familiarize students with the different testing equipment's, their underlying principles and the international accepted standards, test methods and the language of measurement.

BFD321 – TEXTILE TESTING

Upon successful completion of the course, the students will be able to:

1. To develop an understanding of methods and techniques used to analyze textile fibers, yarns and fabrics for end use performance.
2. To acquire knowledge and understanding of various structural properties of textiles and relate them to end use fabric performance and product.
3. To familiarize students with the different testing equipment's, their underlying principles and the international accepted standards, test methods and the language of measurement.

BFD322 – COMPUTER AIDED DESIGN-II

Upon successful completion of the course, the students will be able to:

1. Use Coral Draw software and its tools
2. Design and illustrate in Coral Draw
3. Develop motifs and prints.

BFD323 – FASHION MODEL DRAWING-II

Upon successful completion of the course, the students will be able to:

1. Understand the various process involved for garment design and illustrations.
2. Learn about various parts and movements of fashion figure.
3. Get knowledge of various techniques and styles for rendering, use mix medium for fashion illustrations.
4. Develop the skills to manipulate various textures in fashion illustrations.

BFD325 – PATTERN MAKING AND GARMENT CONSTRUCTION-I

Upon successful completion of the course, the students will be able to:

1. Construction of various sleeve block.
2. Construction of various collar block.
3. Construction of Yoked frock with Peter-Pan Collar and Puff Sleeve.
4. Construction of A-line frock with Baby Collar and Flared Sleeve.
5. Construction of adult's basic bodice block.

BFD326 – SURFACE DESIGN AND FABRIC ORNAMENTATION TECHNIQUES

Upon successful completion of the course, the students will be able to:

1. Understand different techniques of embroidery stitches
2. Understand the importance and need of patch work and Applique work.
3. Learn the techniques to create their own range of products.

BFD330 – SOCIAL AND PSYCHOLOGICAL ASPECTS OF CLOTHING (OE)

Upon successful completion of the course, the students will be able to:

1. Understand the evolution of civilization.
2. Explain the cultural pattern and fashion changes.
3. Discuss the conformity and individuality in clothing.

AND003 – ANANDAM-III

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

BFD401 – KNITTING AND WEAVING TECHNOLOGY

Upon successful completion of the course, the students will be able to:

1. Develops understanding knit fabric structure construction process.
2. Develop understandings of divisions of knitted fabric according to fashion industry.

BFD402 – PRINTING AND DYEING TECHNOLOGY

Upon successful completion of the course, the students will be able to:

1. Understand the concept of colour and its measurement techniques.
2. Describe the process of dyeing of various fibers with different dyes.
3. Understand the mechanism of dyeing with different synthetic dyes.
4. Describe the methods and styles of printing.
5. State the application of fabric finishes.

BFD403 – FASHION TREND AND FORECASTING

Upon successful completion of the course, the students will be able to:

1. Tell about the fashion industry and forecasting.
2. Get knowledge about trends and role of forecasting and its process.
3. Tell about the color forecasting and trends.

BFD404 – DESIGN PROCESS

Upon successful completion of the course, the students will be able to:

1. Do planning process for designing.
2. State the steps involved in Design and develop the any product or service.
3. Understand the usability, testing, verification and quality check of a product.

BFD422 – PRINTING AND DYEING TECHNOLOGY (LAB)

Upon successful completion of the course, the students will be able to:

1. Prepare the textile for dyeing and printing.
2. Classify of Synthetic dyes.
3. Print textile fabrics in different styles using suitable dyes.

BFD423 – FASHION TREND AND FORECASTING (LAB)

Upon successful completion of the course, the students will be able to:

1. Tell about the Trends and Forecasts for apparel / accessories / home textiles

2. Analysis of past trends.
3. Develop the forecast.

BFD424 – DESIGN PROCESS (LAB)

Upon successful completion of the course, the students will be able to:

1. Do planning process for designing.
2. State the steps involved in Design and develop the any product or service.
3. Understand the usability, testing, verification and quality check of a product.

BFD425 – COMPUTER AIDED DESIGN-III

Upon successful completion of the course, the students will be able to:

1. Use Photoshop for figure drawing and rendering.
2. Design and illustrate in Photoshop.
3. Designing and development of portfolio

BFD427 – PATTERN DRAPING

Upon successful completion of the course, the students will be able to:

1. Explain the tools and equipment's used for draping and preparation of fabric for draping.
2. Drape basic bodice and skirt.
3. Create draped patterns with dart manipulations, various neckline and collars, control seam and style lines.
4. Drape various variations in skirts.
5. Drape a dress.

BFD428 – PATTERN MAKING & GARMENT CONSTRUCTION-II

Upon successful completion of the course, the students will be able to:

1. Construct stylized sleeve patterns form basic sleeve pattern.
2. Dart Manipulation Technique or process to construct various Garment.
3. Well versed understanding of Design Specification Sheet, Tech Pack and Cost Sheet.
4. Learn Garment Construction process of – Gathered Skirt, Pegged Skirt, Tiered Skirt.
5. Construct Stylized Garments.

BFD431 – FASHION ANAGEMENT-I (OE)

Upon successful completion of the course, the students will be able to:

1. Concept of Fashion Marketing, Management and Merchandising.

2. Fashion Marketing types, Four P's concept, fashion promotion, market survey and Research.
3. Types of merchandising, concepts, merchandise planning, sampling- Importance, counter sample.
4. Introduction to customer relationship management, measuring customer relationship Management.
5. Customer relation and complaint management.

AND004 – ANANDAM-IV

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

BFD501 – CARE AND STORAGE OF APPAREL AND TEXTILES

Upon successful completion of the course, the students will be able to:

1. State the laundry process, equipment's used and principles of washing of various textiles.
2. Describe that can be applied on to the textiles without causing any harm.
3. Define stain removal and special laundry processes.

BFD502 – FASHION PROMOTION AND BRAND DESIGN

Upon successful completion of the course, the students will be able to:

1. Brief idea about Fashion Promotion, Media Management.
2. Various tools for Fashion Promotion and Media.
3. Anatomy of Trend, Image-maker, Fashion identity, Building the brand of Choice
4. Various Collections and their significance.

BFD523 – COMPUTER AIDED DESIGN-IV

Upon successful completion of the course, the students will be able to:

1. Use Coral Draw software and its tools.
2. Design and illustrate in Coral Draw.

BFD524 – ACCESSORY DESIGN AND DEVELOPMENT

Upon successful completion of the course, the students will be able to:

1. Narrate a brief story of accessory design.
2. Use illustration, coloring and rendering techniques for designing fashion accessories and construct different types of accessories.
3. Create a theme/inspiration based accessory collection.

BFD525 – PATTERN MAKING AND GARMENT CONSTRUCTION-III

Upon successful completion of the course, the students will be able to:

1. Construction of various sleeve block pattern.
2. Construction stylized garment – Jumpsuit & Romper.
3. Construction of stylized garment – Straight Pant & Palazzo.

BFD530 – FASHION STYLIZING

Upon successful completion of the course, the students will be able to:

1. Develop well versed understanding of the basics and general idea of fashion styling.
2. learn how to stylize a range and showcasing portfolio of their own personal style.

BFD560 – INTEGRATED DESIGN PROJECT-I

Upon successful completion of the course, the students will be able to:

1. Develop their skills in processes and materials.
2. Create range using primary, secondary, and tertiary data and using different techniques

BFD531 – FASHION MARKETING AND MERCHANDISING (OE)

Upon successful completion of the course, the students will be able to:

1. Brief idea about Fashion Promotion, Media Management.
2. Various tools for Fashion Promotion and Media Management.
3. Anatomy of Trend, Image-maker, Fashion identity, Building the brand of Choice.
4. Various Collections and their significance.

AND005 – ANANDAM-V

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

BFD601 – CONTEMPORARY ART APPRECIATION

Upon successful completion of the course, the students will be able to:

1. Understand history of contemporary art and fashion and the different theoretical.
2. Corelates between fashion art and ideology in global culture.
3. Emphasizing and development of conceptual art.

BFD602 – DESIGN RESEARCH METHODS & PROCESS

Upon successful completion of the course, the students will be able to:

1. Understand the conceptual and statistical tabulation of data, frequency distribution, diagrammatic & graphical presentation of data.
2. Measures of central tendency–Arithmetic and Weighted Mean, Median, Mode Properties.
3. Understand the Sampling distribution & the standard error.
4. Prepare Research Report based on any Case Study related to Fashion

BFD623 – PATTERN MAKING AND GARMENT CONSTRUCTION (LAB)-IV

Upon successful completion of the course, the students will be able to:

1. Different Garment Construction Technique.
2. Pattern Development and Construction of Stylized Garments.
3. Construction of garments with - Princess line, Yokes with princess lines, gathers, pleats and tucks, Torso yoke, Empire line.
4. Construction of garments with - Contouring pattern, Wrap, Off shoulder, Halter Neckline.

BFD624 – RANGE DEVELOPMENT

Upon successful completion of the course, the students will be able to:

1. Understand and Accumulate data to prepare Range of Garments.
2. Well versed knowledge to prepare Story Board, Inspiration Board, Mood Board and Color Board.
3. Understand about specific or target Range and prepare working spec drawings. Select Fabrics, Trims and Accessories required for the range.
4. Know the parameters of Cost Sheet and prepare Cost sheet for the whole range with actual budget.
5. Final Construction of Range and Presentation.

BFD630 – FASHION PHOTOGRAPHY (LAB)

Upon successful completion of the course, the students will be able to:

1. Understandings about camera and its care, various camera settings.
2. Understand the methods of indoor and outdoor lighting for fashion or portrait Photography.
3. The rule of Black and white fashion photography with Fashion accessories.
4. Understanding and improvising of Professional and Creative Portraits.
5. Fashion Poses for Photography.
6. Various techniques of Photo editing.

BFD660 – INTEGRATED DESIGN PROJECT-II

Upon successful completion of the course, the students will be able to:

1. Develop their skills in processes and materials.
2. Create range using primary, secondary and tertiary data.

BFD631 – CONTEMPORARY FASHION STUDIES (OE)

Upon successful completion of the course, the students will be able to:

1. Tell about the different fashion vocabulary.
2. Explain the factors affecting or influencing fashion.
3. Understand the movement of Fashion.
4. Do market research to understand the consumer preference.
5. Discuss about the various fashion centers, fashion brand and icons across the world.

AND006 – ANANDAM-VI

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

BFD701 – ENTREPRENEURSHIP MANAGEMENT WITH PROJECT

Upon successful completion of the course, the students will be able to:

1. Understand the concept and theories of entrepreneurship.
2. Explain the Entrepreneurship Skill.
3. Discuss the Role of Government and Other Institutions in Entrepreneurship Development.
4. Describe Small & Medium Scale Industries in India.
5. Understand Industrial Sickness.

BFD702 – DESIGN ETHICS AND INTELLECTUAL PROPERTIES

Upon successful completion of the course, the students will be able to:

1. Understand design ethics and other forms of GI and IP Designs.
2. Explain the importance and various forms of IP3. Differentiate the historical development of copy rights, patents and trademarks. Also, know the procedure for the registrations, importance and rights of having copy rights, patents and trademarks.

BFD723 – PATTERN MAKING AND GARMENT CONSTRUCTION-II

Upon successful completion of the course, the students will be able to:

1. Construction of Gown.
2. Construction stylized Bridal wear.
3. Construction of Women's Formal Shirt.
4. Construction of Jacket.
5. Construction of Trouser.

BFD724 – PORTFOLIO AND DESIGN DEVELOPMENT

Upon successful completion of the course, the students will be able to:

1. Realise ideas, individual views and concepts about aspects of design in fashion.
2. Work independently, to create own Art plates, to identify your own aims and objectives and to investigate thoroughly towards finding appropriate as well as original solutions in the area of design which you have identified.

BFD730 – FASHION COMMUNICATION

Upon successful completion of the course, the students will be able to:

1. Understand fundamentals of global fashion.
2. Comprehend communication strategies.
3. Explain role and importance of fashion and media.
4. Examine and analyze use of varied media for communication and promotion.

BFD750 – INTERNSHIP/ IN-HOUSE TRAINING

Upon successful completion of the course, the students will be able to:

1. In depth knowledge of Fashion Industries and handicrafts.
2. Understanding of working culture and work ethics in Textile and Apparel Industry.
3. Choose desired career path by gaining hands-on experience and interests.

BFD731 – CONSUMER BEHAVIOUR AND FASHION MARKETING (OE)

Upon successful completion of the course, the students will be able to:

1. To provide an understanding of how consumers make decisions.
2. To consider the personal and environmental factors that influence consumer decisions.
3. To understand the strategic implications of consumer influences and decisions for product, advertising, pricing, and distribution strategies.

AND007 – ANANDAM-VII

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

BFD850 – INDUSTRIAL TRAINING/ INTERNSHIP

Upon successful completion of the course, the students will be able to:

1. Application of knowledge learned.
2. Acquire and develop practical skills.
3. Strengthen work values.
4. Gain interpersonal skills.
5. Get an understanding of how the market functions.

BFD860 – INDUSTRIAL TRAINING/ INTERNSHIP

Upon successful completion of the course, the students will be able to:

1. Opportunity to design and present their own collection starting from inspiration and conceptualization.
2. Design process, sourcing, styling, pattern making, photography, accessories and the presentation of their collection.



AMITY UNIVERSITY
R A J A S T H A N

**AMITY SCHOOL OF FASHION TECHNOLOGY
(ASFT)**

MASTER OF DESIGN (M.DES.)

121317

Duration – 2 Years Full Time

Programme Structure

Credit Summery

MASTER OF DESIGN (M.DES.)							
(02Years/ 04 Semesters)							
Semester	Core Course (CC)	Domain Electives (DE)	Value Added Course(VAC)	Open Electives (OE)	Non-Teaching Credit Courses (NTCC)	Anandam	Total
I	16	-	4	-	-	2	22
II	11	3	5	3	-	2	24
III	13	-	5	3	-	2	23
IV	4	-	5	-	12	-	21
Total	44	3	19	6	12	6	90

CC = Core Course

DE = Domain Elective

OE = Open Elective

VA = Value Added Course

NTCC = Non-Teaching Credit Courses (NTCC)

Program Specific Outcomes (PSOs)

After the completion of M. Design (FD) program students will be able to:

1. Utilize their artistic & technological abilities to support the innovation in research skills result from a rigorous process of future design and editing ideas that address specific design challenges.
2. Demonstrate professionalism relates to concern fashion design to a broader socio-economic, historical, and environmental context and quality work and effectively collaborating with teams.
3. Develop a systematic expertise and critical approach to problem-solving at all levels of the design process, marketing and branding.

Program Structure

AMITY SCHOOL OF FASHION TECHNOLOGY(ASFT)

MASTER OF DESIGN (M.DES.)

First Semester MFD

Code	Course	Category	L	T	P/F W	Credit Units
MFD 102	Design Research Methodology	CC	1	-	-	1
MFD 123	Visual Research & Development	CC	-	-	4	2
MFD 124	Design technique Weaving	CC	-	-	4	2
MFD 125	Indian Textile & Semiotics	CC	-	-	2	1
MFD 121	Creative Thinking	CC	-	-	4	2
MFD 126	Materials & Technique	CC	-	-	4	2
AND001	ANANDAM-II	NTCC	-	-	-	2
MFD 150	Design Project – II MINOR Based on design process	CC	-	-	12	6
BCS 111	Communication Skills – II	VA	-	-	1	1
BSS 111	Behavioral Science – II	VA	1	-	-	1
FLN 111 FLG 111 FLS 111 FLC 111	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
Total						23

Second Semester MFD

Code	Course	Category	L	T	P/FW	Credit Units
MFD201	Marketing & Entrepreneurship	CC	1	-	-	1
MFD 202	Textile Processing	CC	1	-	-	1
MFD 223	Material Management & Sustainability	CC	-	-	4	2
MFD 224	Computer Aided Design	CC	-	-	4	2
MFD 222	Textile Processing	CC	-	-	4	2
MFD 250	Design Project – II MINOR Based on design process.	CC	-	-	6	3
MFD 231	Pattern Manipulation Techniques	DE	-	-	6	3
AND002	ANANDAM-II	NTCC	-	-	4	2
BCS 211	Communication Skills – II	VA	-	-	2	2
BSS 211	Behavioral Science – II	VA	1	-	-	1
FLN 211 FLG 211 FLS 211 FLC 211	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
MFD 230	Material Management	OE	3	-	-	3
Total						24

Third Semester MFD

Code	Course	Category	L	T	P/FW	Credit Units
MFD301	Visual Merchandising	CC	1	-	-	1
MFD 321	Visual Merchandising (Lab)	CC	-	-	2	1
MFD 322	Advance Pattern Grading & Draping	CC	-	-	6	3
MFD 323	Research Documentation/Dissertation	CC	-	-	6	3
MFD 350	Design Project for Apparel	CC	-	-	6	3
MFD 351	Design Project for Home Furnishing	CC	-	-	4	2
AND003	ANANDAM-III	NTCC	-	-	-	2
BCS 311	Communication Skills – II	VA	-	-	2	2
BSS 311	Behavioral Science – II	VA	1	-	-	1
FLN 311 FLG 311 FLS 311 FLC 311	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
MFD 330	Material Management	OE	3	-	-	3
Total						23

Fourth Semester MFD

Code	Course	Category	L	T	P/FW	Credit Units
MFD 422	Fashion Portfolio & Design Collection	CC	-	-	6	3
MFD 401	Quality Control & Quality Assurance	CC	1	-	-	1
MFD 423	Internship with Dissertation	NTCC	-	-	24	12
BCS 411	Communication Skills – II	VA	-	-	2	2
BSS 411	Behavioral Science – II	VA	1	-	-	1
FLN 411 FLG 411 FLS 411 FLC 411	Foreign Language - I French German Spanish Chinese	VA	2	-	-	2
Total						21

COURSE OUTCOMES

AMITY SCHOOL OF FASHION TECHNOLOGY (ASFT)

MASTER OF DESIGN (M.DES.)

MFD 102 – DESIGN RESEARCH AND METHODOLOGY

Upon successful completion of the course, the students will be able to:

1. To understand the meaning and importance of research.
2. To understand the types, tools and methods of research
3. To develop skills in designing and executing research and conduct data gathering.
4. To know the innovative areas in Textile Research.

MFD 121 – CREATIVE THINKING

Upon successful completion of the course, the students will be able to:

1. To understand design thinking and creativity in design.
2. Understand the difference between 2Dimensional and 3Dimensional design and its properties.
3. To understand color and its application through elements and principles of design.

MFD 123 – VISUAL RESEARCH AND DEVELOPMENT

Upon successful completion of the course, the students will be able to:

1. To improve observation and visual expression and interpretation.
2. To develop the sense and language of color.
3. To understand the application of color in various forms.

MFD 124 – DESIGN TECHNIQUE WEAVING

Upon successful completion of the course, the students will be able to:

1. To understand the concept of weaving methods and techniques, mechanism, calculations and costing

MFD 125 – INDIAN TEXTILES AND SENIOTICS

Upon successful completion of the course, the students will be able to:

1. To create awareness about the traditional Indian Textiles.

MFD 126 – MATERIAL AND TECHNIQUE

Upon successful completion of the course, the students will be able to:

1. To study the properties of different types of soft and hard material and utilize according to their utilization.
2. To Understand the requirement of product design as per the consumer and market requirement.

MFD 150 – DESIGN PROJECT-MINOR-I (BASED ON DESIGN PROCESS)

Upon successful completion of the course, the students will be able to:

1. To research and evaluate a wide range of Home Textiles/Accessories/Garments.
2. To experiment and combine traditional and non-traditional materials, techniques and processes in own work.

ANDOO1 – ANANDAM-I

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues.
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship.
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

MFD 201 – MARKETING AND ENTREPRENEURSHIP

Upon successful completion of the course, the students will be able to:

1. To acquaint students with marketing process so that they can correlate theory with practical aspect of marketing.
2. Entrepreneurship, Management and Organization focuses on the problems, challenges and opportunities of small and medium-sized firms and focused on issues related to the functioning of boards of directors, especially in family-owned companies project and Re- search method also apply for conducted on financing, innovation, and internationalization and business networks.

MFD 202 – TEXTILE PROCESSING

Upon successful completion of the course, the students will be able to:

1. To understand the application of preparatory of textile material before coloration.
2. To study various types of dyes and dyeing techniques and its advantages & disadvantages.

MFD 203 – MATERIAL MANAGEMENT AND SUSTAINABILITY

Upon successful completion of the course, the students will be able to:

1. Exploration of different materials.
2. Importance of Sustainability.
3. Understanding of the process of material management and inventory.
4. Demonstrate competency in the practical application of materials management principles in industrial inventory systems.

MFD 222 – TEXTILE PROCESSING

Upon successful completion of the course, the students will be able to:

1. Prepare the textile for dyeing and printing.
2. Classify of Synthetic dyes.
3. Print textile fabrics in different styles using suitable dyes.

MFD 223 – MATERIAL MANAGEMENT AND SUSTAINABILITY

Upon successful completion of the course, the students will be able to:

1. Exploration of different materials.
2. Importance of Sustainability.
3. Understanding of the process of material management and inventory.
4. Demonstrate competency in the practical application of materials management principles in industrial inventory systems.

MFD 224 – COMPUTER AIDED DESIGN

Upon successful completion of the course, the students will be able to:

1. Use Coral Draw software and its tools.
2. Design and illustrate in Coral Draw.
3. Develop new motifs and prints.
4. Develop innovative product design.

MFD 231 – PATTERN MANIPULATION TECHNIQUES

Upon successful completion of the course, the students will be able to:

1. About various terminologies and information in Pattern making
2. Understand the various process involved for Preparation of fabrics for clothing construction.
3. Understand the various measurement points for garment manufacturing. How to measure and importance of critical measurement points.

4. Create Basic Block pattern, different types of Necklines and Yokes, different types of Plackets and Pockets for various garments.

MFD 250 – DESIGN PROJECT-II- MINOR (BASED ON DESIGN PROCESS)

Upon successful completion of the course, the students will be able to:

1. To develop concept and designs based on clients' needs and utility.
2. To explore ideas in design, develop sense in design, material technique and style.
3. To understand the suitability, trends, market demand in production of range/ product for apparel, home textiles and accessories.

MFD 230 – MATERIAL MANAGEMENT (OE)

Upon successful completion of the course, the students will be able to:

1. Understanding of latest materials management concepts.
2. To develop expertise in the store and purchase management.
3. Establishing best methods of inventory analysis.

ANDOO2 – ANANDAM-II

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues.
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship.
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

MFD 301 – VISUAL MERCHANDISING

Upon successful completion of the course, the students will be able to:

1. Understanding of various marketing strategies through visual representation.
2. Merchandise Mix and Assortment of goods.
3. Understanding store layouts, store atmospherics and store management.
4. Concept of store design, visual display and infotainment at stores.
5. Various heads of space allocation, customer movement navigation, Planogramming at store.

MFD 321 – VISUAL MERCHANDISING (LAB)

Upon successful completion of the course, the students will be able to:

1. Understanding of Store Planning and Layout.
2. Understandings of Space Allocation and Managing Customer movement navigation.
3. Understanding of in-store Atmospherics and Store Attributes.

4. Concept of store design, visual display and infotainment at stores.
5. VM Planogramming and prepare model store.

MFD 322 – PATTERN GRADING AND DRAPING

Upon successful completion of the course, the students will be able to:

1. Explain the tools and equipment's used for draping and preparation of fabric for draping.
2. Drape advance bodice and skirt.
3. Create draped patterns with dart manipulations, various neckline and collars, control seam and style lines.
4. Drape various variations in skirts.
5. Grade the patterns.

MFD 323 – RESEARCH DOCUMENTATION/ DESERTATION

Upon successful completion of the course, the students will be able to:

1. Writing Dissertation Proposal and selection of Topic/Researchable areas for study .
2. Research data collection and analysis of data.
3. Significance of the Study, Result and Discussion of the Findings

MFD 350 – DESIGN PROJECT FOR APPAREL

Upon successful completion of the course, the students will be able to:

1. Develop advanced skills and exploration in processes and materials Explain the tools and equipment's used for draping and preparation of fabric for draping.
2. Design project is to develop professional skills.
3. Designed product development and present.

MFD 351 – DESIGN PROJECT FOR HOME FURNISHING

Upon successful completion of the course, the students will be able to:

1. Develop advanced skills and exploration in processes and materials.
2. Design project is to develop professional skills.
3. Designed product development and present.

MFD 330 – MATERIAL MANAGEMENT (OE)

Upon successful completion of the course, the students will be able to:

1. Knowledge of purchasing and inventory management.
2. Care and Storage of materials.
3. Importance of resource planning for Product manufacturing.
4. Knowledge about price analysis and cost reduction techniques.

ANDOO3 – ANANDAM-III

Upon successful completion of the course, the students will be able to:

1. Awareness and empathy regarding community issues.
2. Interaction with the community and impact on society.
3. Interaction with mentor and development of Student teacher relationship.
4. Interaction among students, enlarge social network.
5. Cooperative and Communication skills and leadership qualities.
6. Critical thinking, Confidence and Efficiency.

MFD 401 – QUALITY CONTROL AND QUALITY ASSURANCE

Upon successful completion of the course, the students will be able to:

1. Understand The Testing parameters of Textile materials.
2. Understand the importance of Quality Control and Assurance.
3. Understand the process and technicality of Quality Control and Assurance.

MFD 422 – FASHION PORTFOLIO & DESIGN COLLECTION

Upon successful completion of the course, the students will be able to:

1. Understand how to present their core areas.
2. Use of design software.
3. How to express yourself through design.

MFD 423 – INTERNSHIP WITH DESSERTATION

Upon successful completion of the course, the students will be able to:

1. Application of knowledge learned.
2. Acquire and develop practical skills.
3. Strengthen work values.
4. Gain interpersonal skills.
5. Get an understanding of how the market functions.



AMITY UNIVERSITY
R A J A S T H A N

AMITY SCHOOL OF FINE ARTS
(ASFA)

Bachelor of fine arts
(Specialization: Sculpture/ Applied Arts/ Painting)

Programme Code: BFA

12057

Duration – 4 Years Full Time

Programme Structure

Credit Summery

Credits BFA (4 years/ 8 semesters)						
Semester	Core Course CC	Domain Electives DE	Value Added Course VA	Open Electives OE	Non- Teaching Credit Courses (NTCC) (Anadam)	Total
1	16	3	4		2	25
2	20	3	4	3	2	32
3	7	12	4	3	2	28
4	7	12	4	3	2	28
5	7	12	4	3	2	28
6	6	12	4	3	2	27
7	4	12	4	-	4	24
8	-	-	-	-	19	19
Total	67	66	28	15	35	211
Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work						

Program Specific Outcomes (PSOs)

- Demonstrate basic creative skills in composition, portrait, landscaping or live sketching and design. Develop mastery in their art style to the highest possible level given their talents and age.
- Develop knowledge and deep understanding of important art styles, art movements and artists of that particular styles and work techniques along with fundamentals of Art and principles of design.
- Analyze and compare and evaluate Historical and contemporary art techniques and art movements and philosophies including Indian and Western/Analyze and evaluate the importance of principle of design.
- Be able to interpret and engage with existing visual culture and media as a form of creative intelligence.
- Show proficiency essential to independent & collaborative work of Art- Including an independent work ethic & motivation-the ability to generate one's own ideas and the confidence to exhibit them- motivation for creative practice.

Program Structure

AMITY SCHOOL OF FINE ARTS(ASFA)

Bachelor of fine arts (Specialization: Sculpture/ Applied Arts/ Painting)

FIRST SEMESTER

Code	Course	Category	L	T	P/FW	Credits
BFA101	Still Life - I	CC	1	1	2	3
BFA102	Fundamentals of Fine Arts - I	CC	1	0	2	2
BFA103	Graphic Design [2D & 3D Design]- I	CC	1	1	2	3
BFA104	Painting – I	CC	1	0	2	2
BFA105	Sculpture – I	CC	1	0	2	2
BFA106	Print Making – I	CC	1	0	2	2
BFA107	History of Art – I	CC	2	0	0	2
DE Electives: Student has to select 1 course from the list of following DE electives						
BFA108	Digital Art –I	DE	1	1	2	3
BFA109	Cartoon Making – I	DE	1	1	2	
AND001	Anandam-I	NTCC	0	0	0	2
BSS104	Behavioural Science I (Understanding Self for Effectiveness)	VA	1	0	0	1
BCS101	English – I	VA	1	0	0	1
Foreign Language – I (Student has to Select only 1)						
FLN 101	French	VA	2	0	0	2
FLG 101	German					
FLS 101	Spanish					
FLC 101	Chinese					
Total						25
Note:- CC - Core Course, VA - Value Added Course, OE - Open Elective, DE - Domain Elective, FW - Field Work						

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit
BFA201	Still Life– II	CC	1	1	2	3
BFA202	Fundamentals of Fine Arts – II	CC	1	0	2	2
BFA203	Graphic Design [2D & 3D Design]- II	CC	1	1	2	3
BFA204	Painting – II	CC	1	0	2	2
BFA205	Sculpture – II	CC	1	0	2	2
BFA206	Print Making – II	CC	1	0	2	2
BFA207	History of Art – II	CC	2	0	0	2
EVS001	Environmental Studies	CC	4	0	0	4
DE Electives: Student has to select 1 course from the list of following DE electives						
BFA208	Digital Art –II	DE	1	1	2	3
BFA209	Cartoon Making- II	DE	1	1	2	
AND002	Anandam-II	NTCC	0	0	0	2
BSS204	Behavioral Science – II(Problem Solving and Creative Thinking)	VA	1	0	0	1
BCS201	English – II	VA	1	0	0	1
Foreign Language - II (Student has to Select only 1)						
FLN 201	French	VA	2	0	0	2
FLG 201	German					
FLS 201	Spanish					
FLC 201	Chinese					
Open Elective -2			1	1	2	3
Total						32

SECOND SEMESTER

Code	Course	Category	L	T	P/FW	Credit	
BFA301	History of Art – III	CC	2	0	0	2	
BFA302	Aesthetics – I	CC	2	0	0	2	
BFA320	Photography	CC	1	1	2	3	
AND 003	Anandam-III	NTCC	0	0	0	2	
BCS301	Communication Skills – I	VA	1	0	0	1	
BSS304	Behavioral Science – III (Interpersonal Communication and Relationship Management)	VA	1	0	0	1	
Foreign Language – III (Student has to Select only 1)							
FLN301	French	VA	2	0	0	2	
FLG301	German						
FLS301	Spanish						
FLC301	Chinese						
Open Elective -3			OE	1	1	2	3
(SPECIALISATION - SCULPTURE)							
BFA303	Life Study – I	DE	1	1	2	3	
BFA304	Ceramics – I	DE	1	1	2	3	
BFA305	Composition – I	DE	1	0	2	2	
BFA306	Wood Carving – I	DE	1	0	2	2	
BFA307	Sculpture Methods & Materials – I	DE	2	0	0	2	
TOTAL						28	
(SPECIALISATION - APPLIED ARTS)							
BFA308	Drawing and Illustration – I		1	1	2	3	
BFA309	Design – III		1	1	2	3	
BFA310	Lettering & Typography – I		1	0	2	2	
BFA311	Computer Graphics – I		1	0	2	2	
BFA312	Advertising Theory-I		2	0	0	2	
						28	
(SPECIALISATION - PAINTING)							
BFA313	Drawing – III		1	1	2	3	
BFA314	Painting - III		1	1	2	3	
BFA315	Composition – I		1	0	2	2	
BFA316	Print Making – III		1	0	2	2	
BFA317	Painting Methods & Materials – I		2	0	0	2	
						28	

FIFTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit
BFA501	History of Art – V	CC	2	0	0	2
BFA502	Aesthetics – III	CC	2	0	0	2
BFA520	Murals	CC	1	1	2	3
AND 005	Anandam-V	NTCC	0	0	0	2
BCS 501	Communication Skills – III	VA	1	0	0	1
BSS 504	Behavioral Science – V (Group Dynamics & Team Building)	VA	1	0	0	1
Foreign Language - V (Student has to Select only 1)						
FLN 501	French	VA	2	0	0	2
FLG 501	German					
FLS 501	Spanish					
FLC 501	Chinese					
Open Elective -5		OE		1	2	3
(SPECIALISATION - SCULPTURE)						
BFA503	Life Study –III	DE	1	1	2	3
BFA504	Metal Casting – I	DE	1	1	2	3
BFA505	Composition – III	DE	1	0	2	2
BFA506	Ceramics – III	DE	1	0	2	2
BFA507	Sculpture Methods & Materials – III	DE	2	0	0	2
TOTAL						28
(SPECIALISATION - APPLIED ARTS)						
BFA508	Drawing and Illustration – III	DE	1	1	2	3
BFA509	Design – V	DE	1	1	2	3
BFA510	Packaging – I	DE	1	0	2	2
BFA511	Computer Graphics – III	DE	1	0	2	2
BFA512	Advertising Theory – III	DE	2	0	0	2
TOTAL						28
(SPECIALISATION - PAINTING)						
BFA513	Drawing – V	DE	1	1	2	3
BFA514	Painting - V	DE	1	1	2	3
BFA515	Composition – III	DE	1	0	2	2
BFA516	Print Making – V	DE	1	0	2	2
BFA517	Painting Methods & Materials – III	DE	2	0	0	2
TOTAL						28

SIXTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit
BFA601	History of Art – VI	CC	2	0	0	2
BFA602	Aesthetics – IV	CC	2	0	0	2
BFA619	Exhibition-Display Design & Stagecraft	CC	0	1	2	2
AND 006	Anandam-VI	NTCC	0	0	0	2
BCS 601	Communication Skills – IV	VA	1	0	0	1
BSS 604	Behavioral Science – VI (Stress and Coping Strategies)	VA	1	0	0	1
Foreign Language – VI (Student has to Select only 1)		VA	2	0	0	2
FLN 601	French					
FLG 601	German					
FLS 601	Spanish					
FLC 601	Chinese					
Open Elective -6		OE	1	1	2	3
(SPECIALISATION - SCULPTURE)						
BFA603	Metal Casting – II	DE	1	1	2	3
BFA604	Composition – IV	DE	1	1	2	3
BFA605	Ceramics – IV	DE	1	0	2	2
BFA606	Assemblage	DE	1	0	2	2
BFA607	Sculpture Methods & Materials – IV	DE	2	0	0	2
TOTAL						27
(SPECIALISATION - APPLIED ARTS)						
BFA608	Drawing and Illustration – IV	DE	1	1	2	3
BFA609	Design – VI	DE	1	1	2	3
BFA610	Packaging II	DE	1	0	2	2
BFA611	Computer Graphics – IV	DE	1	0	2	2
BFA612	Advertising Theory – IV	DE	2	0	0	2
TOTAL						27
(SPECIALISATION - PAINTING)						
BFA613	Painting - VI	DE	1	1	2	3
BFA614	Mural- VI	DE	1	1	2	3
BFA615	Composition – IV	DE	1	0	2	2
BFA616	<u>Drawing – VI</u>	DE	1	0	2	2
BFA617	Painting Methods & Materials – IV	DE	2	0	0	2
TOTAL						27

SEVENTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit
BFA701	History of Art – VII	CC	2	0	0	2
BFA702	Aesthetics – V	CC	2	0	0	2
BFA719	Practical Training - II (Evaluation)	CC	0	1	2	2
AND 006	Anandam-VI	NTCC	0	0	0	2
BCS701	Communication Skills – V	VA	1	0	0	1
BSS 704	Behavioral Science – VII (Individual Society & Nation)	VA	1	0	0	1
Foreign Language - VII (Student has to Select only 1)		VA	2	0	0	2
FLN 701	French					
FLG701	German					
FLS 701	Spanish					
FLC701	Chinese					
(SPECIALISATION - SCULPTURE)						
BFA703	Life Study – V	DE	1	1	2	3
BFA704	Composition – V	DE	1	1	2	3
BFA705	Metal Casting – III	DE	1	0	2	2
BFA706	Ceramics – V	DE	1	0	2	2
BFA707	Sculpture Methods & Materials – V	DE	2	0	0	2
	TOTAL					24
(SPECIALISATION -APPLIED ARTS)						
BFA708	Drawing and Illustration – V	DE	1	1	2	3
BFA709	Design – VII	DE	1	1	2	3
BFA710	Packaging – III	DE	1	0	2	2
BFA711	Computer Graphics – V	DE	1	0	2	2
BFA712	Advertising Theory – V	DE	2	0	0	2
	TOTAL					24
(SPECIALISATION -PAINTING)						
BFA713	Drawing – VII	DE	1	1	2	3
BFA714	Painting - VII	DE	1	1	2	3
BFA715	Composition – V	DE	1	0	2	2
BFA716	Mural- VII	DE	1	0	2	2
BFA717	Painting Methods & Materials – V	DE	2	0	0	2
	TOTAL					24

EIGHTH SEMESTER

Code	Course	Category	L	T	P/FW	Credit
(SPECIALISATION - SCULPTURE)						
BFA801	Portfolio Development & Presentation (Internship)	NTCC	0	0	19	19
	TOTAL					19
(SPECIALISATION - APPLIED ARTS)						
BFA802	Portfolio Development & Presentation (Internship)	NTCC	0	0	19	19
	TOTAL					19
(SPECIALISATION - PAINTING)						
BFA803	Portfolio Development & Presentation (Internship)	NTCC	0	0	19	19
	TOTAL					19

COURSE OUTCOMES

AMITY SCHOOL OF FINE ARTS(ASFA)

Bachelor of fine arts **(Specialization: Sculpture/ Applied Arts/ Painting)**

SEMESTER I

STILL LIFE – I

Course Code	BFA 101	L-1/T-1/P-2	Credits- 03
--------------------	----------------	--------------------	------------------------

COURSE OUTCOMES (CO)

- CO 1** In this course students are introduced to the basics of Still Life painting.
- CO 2** Students are expected to develop the ability to see, analyze, and understand various inanimate objects around them.
- CO 3** Students will develop the ability to respond to still-life objects and incorporate them into their compositions.
- CO4** Students shall be able to use principles of still life compositions and apply them to their other compositions.

FUNDAMENTALS OF FINE ARTS – I

Course Code	BFA 102	L-1/T-1/P-2	Credits- 03
------------------------	----------------	--------------------	--------------------

COURSE OUTCOMES (CO)

- CO 1** Students shall develop a high level of fluency in the fundamentals of arts.
- CO 2** Students shall develop an understanding and deep knowledge of the various elements and principles of visual arts.
- CO 3** Students shall develop the ability to see, analyze, and compare various art historical and contemporary art techniques and art mediums.

- CO 4** Students shall be able to interpret and engage with existing visual cultures and media.

Graphic Art [Design & 3D Design]- I

Course Code **BFA 103** **L-1/T-1/P-2** **Credits- 03**

COURSE OUTCOMES (CO)

- CO 1** Students shall develop an understanding of the basic principles of design.
- CO 2** Students shall be able to observe and study different types of design in different environments.
- CO 3** Students shall understand how graphic art the most useful technique in learning and observation is.

PAINTING - I

Course Code **BFA 104** **L-1/T-0/P-2** **Credits- 02**

COURSE OUTCOMES (CO)

- CO 1** In this course, the students will get to learn about the basics of painting.
- CO 2** Students will learn about the different techniques of painting.
- CO 3** Students will develop the ability to work with different mediums required to create a painting.

SCULPTURE - I

Course Code **BFA 105** **L-1/T-0/P-2** **Credits- 02**

COURSE OUTCOMES (CO)

- CO 1** In this course, students are introduced to the basics of sculpture-making.
- CO 2** Through this course students explore form, content, and context through individual projects in clay. The ability to think three-dimensionally is an essential and

CO 1	Identify the basic elements of grammar required for good and effective communication.
CO 2	Interpret and discuss key ideas of grammar, diction and communication.
CO 3	Develop Creative & Literary Sensitivity in all communication.
CO 4	Design and create texts for a variety of purposes and audiences, evaluating and assessing the effectiveness of grammatical aspects.

**BEHAVIOURAL SCIENCE - I
(UNDERSTANDING SELF FOR EFFECTIVENESS)**

Course Code: BSS104

CreditUnits: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) should be able to:

1. Demonstrate awareness of self and the process of self-exploration.
2. Demonstrate knowledge of strategies for developing a healthy self-esteem.
3. Recognize the importance of attitudes and its effect on personality.
4. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for personal and professional life.

FRENCH – I

Course Code: FLN 101

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Identify and express in French vocabulary and grammar norms
CO 2 Interpret different types of texts as well as cultural ideas and themes
CO 3 Demonstrate comprehension of nuance between script and sound in French
CO 4 Narrate clearly ideas, themes in simple standard French

GERMAN – I

Course Code: FLG 101

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Students shall be able to identify and express German vocabulary and grammar norms.
CO 2 Students shall be able to interpret different types of texts as well as cultural ideas and themes.

- CO 3 Students shall be able to demonstrate comprehension of the nuance between script and sound in German.
- CO 4 Students shall be able to narrate clearly ideas, themes in simple standard German.

SPANISH – I

Course Code: FLS 101

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Students shall be able to identify and express Spanish vocabulary and grammar norms.
- CO 2 Students shall be able to interpret different types of texts as well as cultural ideas and themes.
- CO 3 Students shall be able to demonstrate comprehension of the nuance between script and sound in Spanish.
- CO 4 Students shall be able to clearly narrate ideas, themes in simple standard Spanish.

CHINESE – I

Course Code: FLC 101

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Students shall be able to read, write, and speak approximately 100 New Chinese words and understand basic grammar points.
- CO 2 Students shall be able to interpret words, phrases, and sentences of day-to-day conversation related to hobbies and abilities, gratitude, apology, welcome, time, weather, and directions.
- CO 3 Students shall be able to write Chinese characters, simple sentences, and a paragraph on a simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
- CO 4 Students shall be able to communicate with Chinese-speaking people using words, phrases, and sentences related to hobbies and abilities. Express gratitude, apology, and welcome.

STILL LIFE– II

Course Code **BFA 201** **L-1/T-1/P-2** **Credits- 03**

COURSE OUTCOMES (CO)

- CO 1** In this course, students will gain the understanding of observation and study of different objects in different atmospheres.
- CO 2** Students will develop an approach toward composition development.
- CO 3** Students will now have developed sufficient dexterity in creating different kinds of still life compositions.

FUNDAMENTALS OF FINE ARTS – II

Course Code **BFA 202** **L-1/T-0/P-2** **Credits- 02**

COURSE OUTCOMES (CO)

- CO 1** In this course, students will develop an understanding of different conventions and notions associated with visual arts.
- CO 2** Students will have a theoretical understanding of techniques and mediums involved in the artmaking process.
- CO 3** Students shall develop an advanced level of ability to analyze and compare historical and contemporary art techniques and art movements.
- CO 4** Students shall be able to incorporate technical methods for the interpretation of existing visual cultures and media.

Graphic Art [Design & 3D Design] – II

Course Code **BFA 203** **L-1/T-1/P-2** **Credits- 03**

COURSE OUTCOMES (CO)

- CO 1** In this course, students shall learn about the basics of Advertising principles.
- CO 2** Students shall be able to evaluate the role, importance, and use of various aspects of advertising planning and budgeting.
- CO 3** Students will be able to use the features and concepts of copywriting at a basic level.
- CO 4** Students will develop an understanding of the Media plan.

PAINTING - II

Course Code **BFA 204** **L-1/T-0/P-2** **Credits- 02**

COURSE OUTCOMES (CO)

- CO 1** In this course, students will demonstrate an understanding of basic art-making, its theory, and its application in design.
- CO 2** Students will learn to use different mediums of painting and create compositions at an intermediate level.
- CO 3** Students will develop dexterity in basic creative skills of every kind of composition including portrait, landscape, design, live sketching.

SCULPTURE - II

Course Code **BFA 205** **L-1/T-0/P-2** **Credits- 02**

COURSE OUTCOMES (CO)

- CO 1** In this course, students learn about the more advanced skills of clay, Plaster of Paris, and its application in sculpture.
- CO 2** Students shall develop a working understanding of different types of clay which will help them to create different types of sculptures.
- CO 3** Students will be able to wisely use the knowledge acquired in making a sculpture and shall be able to interpret and engage with existing visual culture and media as a form of creation by applying the skills of clay and tools.
- CO 4** Students shall develop an understanding of other nontraditional sculpture-making media.

PRINT MAKING - II

Course Code **BFA 206** **L-1/T-0/P-2** **Credits- 02**

COURSE OUTCOMES (CO)

- CO 1** In this course, students will be introduced to surface printing in single and multi-color printing techniques.
- CO 2** Students shall develop an understanding and deep knowledge of different types of methods by investigating different kinds of prints which will help them to create compositions.
- CO 3** Students will develop the knowledge of creating blocks on various conventional and non-conventional materials.
- CO 4** Students shall be introduced to famous printmakers and their works.

Course Code **BFA 208** **L-1/T-1/P-2** **Credits- 03**

HISTORY OF ART - II

Course Code **BFA 207** **L-2/T-0/P-0** **Credits- 02**

COURSE OUTCOMES (CO)

- CO 1** In this course, students shall develop a high level of fluency in the art history of medieval India.
- CO 2** Students shall develop an understanding and deep knowledge of the art, architecture, and patronage in the history of medieval Indian art.
- CO 3** Students shall develop the ability to draw an art historical and comparative analysis of medieval Indian art.

ENVIRONMENTAL STUDIES

Course Code : EVS 001
04

Credit Units :

CO 1	Students will learn about flora and fauna and other environment issues
CO 2	Students will learn about their own surroundings and habitat.
CO 3	Student will be able to understand the importance of the protection and conservation of our environment
CO 4	Student will gain better understanding of their own environment.

DIGITAL ART- II

1. In this course, students will develop an understanding to recognize a variety of professional practices (technical, conceptual, and practical), catering to digital graphics, and applying that knowledge by developing a personalized career plan.
2. Students shall be able to analyze, compare, and evaluate digital historical and contemporary art techniques for the research and conceptualization of their presentations.
3. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.
4. Show proficiency essential to independent & collaborative work of art including an independent work ethic & motivation-the ability to generate one's own ideas with confidence to exhibit them- motivation for creative practice.

CARTOON MAKING - II

Course Code

BFA 209

L-1/T-1/P-2

Credits- 03

COURSE OUTCOMES (CO)

- CO 1** In this course, students will demonstrate an understanding of intermediate skills of cartoon making and its application in character design by using the design principle.
- CO 2** Students shall develop the ability to design and conceptualise different kinds of characters and illustrations.
- CO 3** Students will be able to wisely use the knowledge acquired in making a cartoon by applying the skills of sketching and create characteristics of cartoon.
- CO 4** Students shall develop requisite skills to engage with the existing visual culture.

ENGLISH - II

Course Name	Course Code	LTP	Credit	Semester
General English	BCS201	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Participate in conversation and in small- and whole-group discussion
CO 2	Explore and use English as medium of communication in real life situation
CO 3	Discuss topics and themes of a reading, using the vocabulary and grammar of the lesson
CO 4	Identify features of a reading textbook and utilize them as needed
CO 5	Prepare and deliver organized presentations in small groups and to whole class
CO 6	Apply sentence mechanics and master spelling of high frequency words

BEHAVIOURAL SCIENCE - II

(PROBLEM SOLVING AND CREATIVE THINKING)

Course Code: BSS 204

CreditUnits: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) would be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hindrance to problem solving processes.
3. Analyze the steps in problem-solving process.

Create plan of action applying creative thinkings

FRENCH – II

Course Code: FLN 201

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Identify and express in French vocabulary and grammar norms
- CO 2** Interpret different types of texts as well as cultural ideas and themes
- CO 3** Demonstrate comprehension of nuance between script and sound in French
- CO 4** Narrate clearly ideas, themes in simple standard French

GERMAN – II

Course Code: FLG 201

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Students shall be able to identify and express German vocabulary and grammar norms.
- CO 2** Students shall be able to interpret different types of texts as well as cultural ideas and themes.
- CO 3** Students shall be able to demonstrate comprehension of the nuance between script and sound in German.
- CO 4** Students shall be able to narrate clearly ideas, themes in simple standard German.

SPANISH – II

Course Code: FLS 201

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Students shall be able to identify and express Spanish vocabulary and grammar norms.
- CO 2** Students shall be able to interpret different types of texts as well as cultural ideas and themes.
- CO 3** Students shall be able to demonstrate comprehension of the nuance between script and sound in Spanish.

CO 4 Students shall be able to clearly narrate ideas, themes in simple standard Spanish.

CHINESE – II

Course Code: FLC 201

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Students shall be able to read, write, and speak approximately 100 New Chinese words and understand basic grammar points.
- CO 2** Students shall be able to interpret words, phrases, and sentences of day-to-day conversation related to hobbies and abilities, gratitude, apology, welcome, time, weather, and directions.
- CO 3** Students shall be able to write Chinese characters, simple sentences, and a paragraph on a simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
- CO 4** Students shall be able to communicate with Chinese-speaking people using words, phrases, and sentences related to hobbies and abilities. Express gratitude, apology, and welcome.

SEMESTER- III **HISTORY OF ART - III**

Course Code: BFA301
Units: 02

Credit

COURSE OUTCOMES (CO)

- CO 1** students shall develop a high level of fluency with visual theories.
- CO 2** Students shall develop understanding and deep knowledge of the fundamentals of Art
- CO 3** Students shall produce their own historical analysis of documents and develop the ability to think critically and historically when discussing the past.

- CO 4** Students will develop the ability to think critically about the varieties of experience found in the historical record of the Indian art, exploring critical component of history

AESTHETICS - I

Course Code: BFA302
Units: 02

Credit

COURSE OUTCOMES (CO)

- CO 1** Student shall develop high level of fluency with visual theories.
- CO 2** Students shall develop understanding and deep knowledge of the fundamentals of appreciating art.
- CO 3** Students shall develop the ability to *see*, analyze, and compare historical and contemporary art techniques and art movements.
- CO 4** Students shall be able to interpret and engage with existing visual cultures and media.

PHOTOGRAPHY

Course Code: BFA 320

Credit Units: 03

COURSE OUTCOMES (CO)

- CO 1** Students will demonstrate an understanding of the basic tools of cameras and its application in photography.
- CO 2** Students shall develop an understanding of the history of photography, moving images, and Photojournalism.
- CO 3** Students shall demonstrate a brief understanding of news values, photojournalism and sources. Students shall assess the importance of digital technology in photography.
- CO 4** Students shall be able to compose a photograph with the knowledge of aesthetic principles. They will critically analyze and appreciate photographs and differentiate the types of photographs.

Course Title: Anandam

Semester III

Course Code:AND003

Credit Units: 02

Course Outcomes:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

Communication Skills – I

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS301	1:0:0	1	1

A. COURSE OUTCOMES (CO)

CO 1	Inculcating creative thinking skills
CO 2	Construct and showcase their communication skills in a creative manner.
CO 3	Comprehending and demonstrating ways of self-introduction
CO 4	Outlining and illustrating presentation Skills

BEHAVIOURAL SCIENCE - III (INTERPERSONAL COMMUNICATION)

Course Code: BSS304

CreditUnits: 01

COURSE OUTCOMES (COs):

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge of strategies for developing a healthy interpersonal communication.
2. Recognize the importance of transactional analysis, script analysis.
3. Identify the difference between healthy and unhealthy expression of emotions and develop emotional competence necessary for conflict resolution and impression management.
4. Enhance personal effectiveness and performance through effective interpersonal communication.

FRENCH - III

Course Code: FLN 301

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Identify and express in French vocabulary and grammar norms
- CO 2 Interpret different types of texts and expressions cultural ideas and themes.
- CO 3 Demonstrate comprehension of nuance between script and sound in French
- CO 4 Narrate clearly ideas, themes in simple standard French

GERMAN - III

Course Code: FLG 301

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Students will be able to ask and tell time in German.
- CO 2 Students will be able to frame sentences using Separable verb.
- CO 3 Student will be able to write and speak sentences using modal verb.
- CO 4 Students will be able to frame sentences and speak using was/were/had.

SPANISH – III

Course Code: FLS 301

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Introduction of stem-changing irregular verbs
- CO 2 Introduction of prepositions (Cerca de/ lejos de/ encima de etc.)
- CO 3 Present continuous tense (Estar+ gerundio)
- CO 4 Introduction of third person verbs Gustar/Parecer/Encantar/ Doler (to like/ to seem like/ to enchant/ to hurt.) etc
- CO 5 Interrogatives – How much/ How many
- CO 6 Introduction of irregular verbs.
- CO 7 Immediate future plans (Ir a + verbo)

CHINESE – III

Course Code: FLC 301

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Read, write and speak approx. 50 New Chinese words and understand basic grammar points.
- CO 2 Interpret words, phrases and sentences of day today conversation related to size, quantity, shopping, communication, study, work and feelings.
- CO 3 Write Chinese characters, simple sentence and a paragraph on Self Introduction
- CO 4 Communicate with Chinese speaking people using words, phrases and sentences related to size, quantity, shopping, communication, study, work and feelings.

(SPECIALISATION- SCULPTURE)

LIFE STUDY - I

Course Code: BFA 303 Credit Units: 03

1. Students will learn relief composition in clay, technique of terracotta and direct modeling in plaster
2. Students will learn three dimensional forms, texture and colour of the material, principle of weight, volume, space and contour.
3. Students will develop understanding of different methods and material involved in sculpture.
4. Students will develop their own voice as an artist. Students shall develop the essential exhibition skills to express and promote their art works.

CERAMICS - I

Course Code: BFA 304 Credit Units: 03

COURSE OUTCOMES (CO)

1. Students shall develop understanding and deep knowledge of the fundamentals of clay modeling.
2. Students shall develop the ability to *see*, analyze, and work with different techniques and processes in clay.
3. Students will develop the ability to receive critiques of their artworks from instructor & peers.
4. Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures.

COMPOSITION - I

Course Code: BFA305 Credit Units: 02

COURSE OUTCOMES (CO)

1. Students shall develop understanding and deep knowledge of the fundamentals of clay modeling.
2. Students shall develop the ability to *see*, analyze, and work with different techniques and processes in clay.

3. Students will develop the ability to receive critiques of their artworks from instructor & peers.
4. Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures.

WOOD CARVING - I

Course Code: BFA 306

Credit Units: 02

COURSE OUTCOMES (CO)

1. Students shall develop understanding and deep knowledge of the fundamentals of wood carving
2. Students shall develop the ability to *see*, analyze, and work with different techniques in carving wood.
3. Students will develop the ability to receive critiques of their artworks from instructor & peers.
4. Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures.

SCULPTURE METHODS AND MATERIALS - I

Course Code: BFA 307

Credit Units: 02

COURSE OUTCOMES (CO)

1. Students shall develop understanding and deep knowledge of the fundamentals of methods and material.
2. Students shall develop the ability to *see*, analyze, and work with different techniques and processes in sculpture.
3. Students shall be able to interpret and engage with existing visual cultures.

SPECIALISATION- APPLIED ARTS) DRAWING AND ILLUSTRATION – I

Course Code: BFA 308

Credit Units: 03

COURSE OUTCOMES (CO)

- CO 1** Students shall develop an understanding of basic drawing and sketching.
- CO 2** Students will develop the ability to see, analyze, and critique artworks as an artist

and understand their philosophies.

- CO 3** Students will develop the ability to receive critiques of their artworks from instructors & peers. Students will develop their own voices as an artist.

DESIGN – III

Course Code: BFA 309
COURSE OUTCOMES (CO)

Credit Units: 03

- CO 1** Students will demonstrate an understanding of basic elements of design and its application in Design and the principle of designing.
- CO 2** Students shall develop understanding and deep knowledge of different types of designs by investigating the different designs which will help them to create different designs used for corporate identity.
- CO 3** Students will be able to wisely use the knowledge acquired in creating a design by applying the knowledge of elements and principles and its applications.
- CO 4** Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as a design artist. / Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.
- CO 5** Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

LETTERING AND TYPOGRAPHY – I

Course Code: BFA 310
COURSE OUTCOMES (CO)

Credit Units: 02

- CO 1** Students will know the potential of understanding the arrangement of type involves selecting typefaces, point sizes, line lengths, line-spacing (leading), and letter-spacing (tracking), and adjusting the space between pairs of letters.
- CO 2** Students will develop an approach towards the concepts of changing the art history and use of typography and history of letterforms of both Roman and Vernacular as design form: spacing, the study of basic typefaces, the study of fundamentals of the layout.
- CO 3** Students will learn about their practical application, preparation of simple typographical layout for News Papers.

COMPUTER GRAPHICS – I

Course Code: BFA 311

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Students will demonstrate an understanding of basic tools of computer graphics and its application in Design.
- CO 2** Students will learn the core concepts of computer graphics, including viewing, projection, perspective, modelling and transformation in two and three dimensions.
- CO 3** Students will be able to wisely use the knowledge acquired in creating a computer graphic by applying the knowledge of all designing tools. Apply the concepts of colour models, lighting and shading models, textures, ray tracing, hidden surface elimination, anti-aliasing, and rendering.
- CO 4** Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as a graphic artist. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

ADVERTISING THEORY – I

Course Code: BFA 312

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Understand the importance of Advertising principles.
- CO 2** Evaluate the role, importance, and use of various aspects of advertising planning and budgeting,
- CO 3** Use the features and concept of copywriting.
- CO 4** Understand the relevance of the Media plan.

(SPECIALISATION- PAINTING)

DRAWING - III

Course Code: BFA 313

Credit Units: 03

COURSE OUTCOMES (CO)

- CO 1** Students shall develop an understanding of basic drawing and sketching.

- CO 2** Students will develop the ability to see, analyze, and critique artworks as an artist and understand its philosophies.
- CO 3** Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as an artist.
- CO 4** Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

PAINTING - III

Course Code: BFA 314

Credit Units: 03

COURSE OUTCOMES (CO)

- CO 1** In this course students will get to learn more about the landscape.
- CO 2** Students will get to learn more about cityscape using different colors, medium.
- CO 3** Students will get to learn about human anatomy study.
- CO 4** Students will get to learn about portrait study.
- CO 5** Students will get to learn more about cityscape, structure, and light and shade memory drawing.

COMPOSITION - I

Course Code: BFA 315

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** In this course the students will get to learn more about understanding of the 2-D surface.
- CO 2** Students will get to learn more about different types of Forms, their nature.
- CO 3** Students will get to learn more about Rules of third.
- CO 4** Students will get to learn more about still life objects composition.

PRINT MAKING - III

Course Code: BFA 316

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Students will demonstrate an understanding of basic art-making, its theory, and its application in Design- basic creative skills in every kind of composition [portrait, landscape, design, live sketching].
- CO 2** Students shall develop knowledge of the art of printmaking.
- CO 3** Students will learn the basics of various printmaking techniques.

PAINTING METHODS AND MATERIALS - I

Course Code: BFA 317

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Students will demonstrate an understanding of basic art making, its theory and its application in Design- basic creative skills in every kind of composition [portrait, landscape, design, live sketching]
- CO 2** Students shall develop understanding and deep knowledge different art techniques and mediums.
- CO 3** Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as an artist.

SEMETER IV

HISTORY OF ART - IV

Course Code: BFA 401

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1** Students will have gained advanced knowledge of important moments in modern Indian art history.
- CO 2** Students shall gain knowledge of major artists, art collectives, and art schools in the modern and contemporary art history of India.
- CO 3** Students shall gain a deeper understanding of art styles, processes, and major art historical influences.

AESTHETICS - II

Course Code: BFA 402

Credit Units: 02

CO 1 Student shall develop aesthetic appreciation along with understanding and deep knowledge of the fundamentals of Art [Elements and Principles of Design].

CO 2 Students shall develop the ability to see, analyze, and compare historical and contemporary art techniques and art movements.

CO 3 Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will be able to communicate their thoughts and ideas in a concise manner.

CO4 They shall be able to interpret and engage with the nature of beauty, art and taste.

LIFE STUDY DRAWING

Course Code: BFA 420

Credit Units: 03

COURSE OUTCOMES (CO)

CO 1 Students shall develop an understanding of basic drawing and sketching.

CO 2 Students will develop the ability to see, analyze, and critique artworks as an artist and understand its philosophies.

CO 3 Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as an artist.

Course Title: Anandam Semester IV

Course Code:AND004

Credit Units: 02

Course Learning Outcomes:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

Communication Skills – II

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS401	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Identify steps to professional communication
CO 2	Identify the key components of meeting, agendas and meeting minutes
CO 3	Understand the key skills and behaviors required to facilitate a group discussion/presentation
CO 4	Polish current affairs& rapport building

BEHAVIOURAL SCIENCE - IV (RELATIONSHIP MANAGEMENT)

Course Code: BSS 404

CreditUnits: 01

Course Objective:

To understand the basis of interpersonal relationship

To understand various communication style

To learn the strategies for effective interpersonal relationship

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) would be able to:

1. Identify the basis of interpersonal relationship.
2. Describe the importance of interpersonal relationship and bridging individual differences.
3. Recognize the development and strategies for effective interpersonal relationship.
4. Explain and apply the theories of relationship concepts of impression management.

FRENCH - IV

Course Code: FLN 401

Credit Units: 02

COURSE OUTCOMES (COs)

CO 1 Students shall be able to identify and express French vocabulary and grammar norms.

CO 2	Students shall be able to interpret words, phrases, and sentences of day-to-day conversation related to greetings, farewell, personal information like name, age, profession, residence, family, hobbies, and abilities.
CO 3	Students shall be able to write Chinese characters, simple sentences, and a paragraph on a simple topic like ‘Self Introduction’ and dialogue writing on “Conversation between two friends exchanging Personnel Information”.
CO 4	Students shall be able to communicate with Chinese-speaking people using greetings & farewells, exchanging personal information like name, age, profession, residence, family, hobbies, and abilities. Express gratitude, apology, and welcome.

**(SPECIALISATION- SCULPTURE)
COMPOSITION - II**

Course Code: BFA 403

Credit Units: 03

COURSE OUTCOMES (CO)

CO1 Students will learn about three dimension and different techniques involved in sculpting.

CO2 Students will develop understanding of different methods and material used while working on composition.

CO3 Students will develop their own voice as an artist. Students shall develop the essential skills to develop and express their work.

CERAMICS - II

Course Code: BFA 404

Credit Units: 03

COURSE OUTCOMES (CO)

CO1 Students shall develop understanding and deep knowledge of the fundamentals of clay modeling.

CO2 Students shall develop the ability to *see*, analyze, and work with different techniques and processes in clay.

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures.

WOOD CARVING - II

Course Code: BFA 405

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students shall develop understanding and deep knowledge of the fundamentals of wood carving

CO2 Students shall develop the ability to *see*, analyze, and work with different techniques in carving wood.

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures

ASSEMBLAGE - II

Course Code: BFA 406

Credit Units: 02

CO1 Students shall develop understanding of various found materials involved in assemblage.

CO2 Students shall develop the ability to *see*, analyze, and work with different techniques like welding.

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures

SCULPTURE METHODS AND MATERIALS - II

Course Code: BFA 407

Credit Units: 02

CO1 Students shall develop understanding and deep knowledge of the fundamentals of methods and material used in sculpture

CO2 Students shall develop the ability to *see*, analyze, and work with different techniques.

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures

(SPECIALISATION- APPLIED ART)

ILLUSTRATION-II

Course Code: BFA 408

Credit Units: 03

COURSE OUTCOMES (COs)

- CO 1** Students will demonstrate an understanding of basic elements of drawing and its application in an advertisement, news, story, etc. An illustration made on subjects conveying the story is said to be most accurate because it will convey the entire idea to the viewer.
- CO 2** Students shall develop an understanding and deep knowledge of different types of illustration by investigating the different types of illustration which will help them in their future projects.
- CO 3** Students will be able to wisely use the knowledge acquired in creating an illustration by applying the knowledge of elements and principles and their applications.
- CO 4** Students will develop the ability to receive critiques of their artworks from instructors & peers. Students will develop their own voice as a design artist. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

DESIGN – IV

Course Code: BFA 409

Credit Units: 03

COURSE OUTCOMES (COs)

- CO 1.** Students will demonstrate an understanding of basic elements of design and its application in Design and the principle of designing, and following the principle they will create advertising campaign for a product company.
- CO 2.** Students shall develop understanding and deep knowledge of different types of designs by investigating the different designs which will help them to create different designs used for corporate identity.
- CO 3.** Students will be able to wisely use the knowledge acquired in creating a design by applying the knowledge of elements and principles and its applications.

LETTERING AND TYPOGRAPHY – II

Course Code: BFA 410

Credit Units: 02

COURSE OUTCOMES (COs)

CO 1. Students will demonstrate an understanding of basic knowledge of creating type and fonts.

CO 2. Students shall develop an understanding and deep knowledge of different types of fonts by investigating the different types and fonts which will help them to create different typography used in various designs.

CO 3. Students will be able to wisely use the knowledge acquired in creating a type by applying the knowledge of elements and principles and their applications.

CO 4. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

COMPUTER GRAPHICS – II

Course Code: BFA 411

Credit Units: 02

COURSE OUTCOMES (COs)

CO 1. Students will demonstrate an understanding of basic design software and its application in an advertisement, news, story etc.

CO 2. Students shall develop an understanding and deep knowledge of its tools and uses types of design software by investigating the different types of design projects like logo, poster, pamphlet, etc which will help them in their future projects.

CO 3. Students will be able to wisely use the knowledge acquired in creating a new design, layouts, illustration by applying the knowledge of elements and principles and their applications.

CO 4. Students will develop the ability to receive critiques of their artworks from instructors & peers. Students will develop their own voices as design artists. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

ADVERTISING THEORY – II

Course Code: BFA 412

Credit Units: 02

COURSE OUTCOMES (COs)

CO 1. Students will demonstrate an understanding of Advertising theory, its functions, and fundamental importance along with basic elements and principles of design, its role and effect in advertising layout, and its elements.

CO 2. Students shall develop an understanding and deep knowledge of different types of advertisement by investigating the different mediums of advertisement which will eventually be going to help them practically to create different designs used for corporate identity.

CO 3. Students will be able to wisely use the knowledge acquired practically in creating a design by applying the knowledge of Advertisement and elements and principles and its applications.

CO 4. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

**(SPECIALISATION- PAINTING)
DRAWING - IV**

Course Code: BFA 413

Credit Units: 03

COURSE OUTCOMES (COs)

CO 1 Students shall develop an understanding of basic drawing and sketching.

CO 2 Students will develop the ability to see, analyze, and critique artworks as an artist and understand their philosophies.

CO 3 Students will develop the ability to receive critiques of their artworks from instructors & peers. Students will develop their own voices as an artist.

CO 4 Students shall develop the essential stagecraft and exhibition skills to express and promote their artworks.

PAINTING - IV

Course Code: BFA 414

Credit Units: 03

COURSE OUTCOMES (COs)

CO 1. Students learn to create different types of painting compositions.

CO 2. Students learn different types of painting techniques.

CO 3. Students learn to execute their ideas through different colors, mediums, surfaces, subjects, etc.

COMPOSITION – II

Course Code: BFA 415

Credit Units: 02

COURSE OUTCOMES (COs)

CO 1. Students' composition sense will improve.

CO 2. Students will have reached an advanced stage in perspective.

CO 3. Students will have an improved sense of creativity and imagination when it comes to art-making.

PRINT MAKING - IV

Course Code: BFA 416

Credit Units: 02

COURSE OUTCOMES (COs)

CO 1. Students will demonstrate an understanding of basic art-making, its theory, and its application in Design- basic creative skills in every kind of composition [portrait, landscape, design, live sketching].

CO 2. Students shall develop knowledge of the art of printmaking.

CO 3. Students will learn the basics of various printmaking techniques.

PAINTING METHODS AND MATERIALS - II

Course Code: BFA 417

Credit Units: 02

COURSE OUTCOMES (COs)

CO 1 Students will demonstrate an understanding of basic art making, its theory and its application in art and design-based creative skills in every kind of composition

CO 2 Students shall develop understanding and deep knowledge different art techniques and mediums.

CO 3 Students will learn the theoretical underpinnings and practical framework of working with different mediums.

SEMETER V

HISTORY OF ART - V

Course Code: BFA 501

Credit Units: 02

COURSE OUTCOMES (CO)

CO 1 Students shall develop a high level of fluency with visual theories.

CO 2 Students shall develop understanding and deep knowledge of the European history

CO 3 Students shall develop the ability to *see*, analyze, and compare historical and contemporary art techniques and art movements.

CO 4 Students will develop the ability to receive critiques of their artworks from instructors & peers. Students will develop their own voices as an artist. They shall be able to interpret and engage with existing visual cultures and media.

AESTHETICS - III

Course Code: BFA 502

Credit Units: 02

COURSE OUTCOMES (CO)

CO 1 Student shall develop aesthetic appreciation along with understanding and deep knowledge of the Western Aesthet

CO 2 Students shall develop the contemporary art techniques and art movements.

CO 3 Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will be able to communicate their thoughts and ideas in a concise manner.

CO4 They shall be able to interpret and engage with the nature of beaut

MURALS

Course Code: BFA 520

Credit Units: 03

COURSE OUTCOMES (CO)

CO 1 Students shall develop an understanding of basic material and technique of mural

CO 2 Students will develop the ability to see, analyze, deffrent tyeps of mura

CO 3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist.

Course Title: Anandam

Semester V

Course Code:AND005

Credit Units: 02

Course Learning Outcomes:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

COMMUNICATION SKILLS - III

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS501	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Create right selection of words and ideas while also choosing the appropriate channel of formal communication.
CO 2	Demonstrate the ability to analyse a problem and devise a solution in a group.
CO 3	Demonstrate proficiency in the use of written communication.
CO 4	Recognize the mannerisms and methodology of Interview and GD to become more expressive in their body language and verbal performance.

BEHAVIOURAL SCIENCE - V (GROUP DYNAMICS AND TEAMBUILDING)

Course Code: BSS504

CreditUnits: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.
5. Identify long term goals and recognize their talent, strengths and styles to achieve them.

FRENCH - V

Course Code: FLN 501

Credit Units: 02

COURSE OUTCOMES (CO)

- CO 1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

GERMAN - V

Course Code: FLG 501

Credit Units: 02

COURSE OUTCOMES (CO)

- CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

SPANISH - V

Course Code: FLS 501

Credit Units: 02

COURSE OUTCOMES (CO)

- CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

CHINESE – V

Course Code: FLC 501

Credit Units: 02

COURSE OUTCOMES (CO)

- CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

(SPECIALISATION- SCULPTURE)

LIFESTUDY - III

Course Code: BFA 503

Credit Units: 03

COURSE OUTCOMES (CO)

- CO1 Students will learn relief composition in clay, technique of terracotta and direct modeling in plaster
- CO2 Students will learn three dimensional forms, texture and colour of the material, principle of weight, volume, space and contour.
- CO3 Students will develop understanding of different methods and material involved in sculpture.
- CO4 Students will develop their own voice as an artist. Students shall develop the essential exhibition skills to express and promote their art works.
-

METAL CASTING - I

COURSE OUTCOMES (CO)

Course Code: BFA 504

Credit Units: 03

CO1 Students will learn about casting and pouring process. They will learn metal pouring into a mould cavity to get desired shape .

CO2 Students will develop understanding of different methods and material involved in metal casting. Students will develop their own voice as an artist.

CO3 Students shall develop the essential skills to develop and express their work.

COMPOSITION - III

Course Code: BFA 505

Credit Units: 02

COURSE OUTCOMES (CO)

CO1Students will demonstrate an understanding of basic art making, its theory and its application in Design- basic creative skills in every kind of composition [portrait, landscape, design, live sketching]

CO2Students shall develop understanding and deep knowledge of the Elements and Principles of Design.Students will develop the ability to see, analyze, and critique artworks

CO3Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4Students will develop their own voice as an artist .Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

CERAMICS - III

Course Code: BFA 506

Credit Units: 02

COURSE OUTCOMES (CO)

CO1Students shall develop understanding and deep knowledge of the fundamentals of clay modeling.

CO2Students shall develop the ability to *see*, analyze, and work with different techniques and processes in clay.

CO3Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures.

SCULPTURE METHODS AND MATERIALS - III

Course Code: BFA507

Credit Units: 02

COURSE OUTCOMES (CO)

CO1Students shall develop understanding and deep knowledge of the fundamentals of methods and material.

CO2Students shall develop the ability to *see*, analyze, and work with different techniques and processes in sculpture

CO3Students shall be able to interpret and engage with existing visual cultures.

(SPECIALISATION- APPLIED ART)

DRAWING AND ILLUSTRATION – III

Course Code: BFA 508

Credit Units: 03

COURSE OUTCOMES (CO)

CO1 Students shall develop an understanding of basic drawing and sketching.

CO2 Students will develop the ability to see, human body proportion and body shapes

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist. Students shall develop the essential stagecraft and exhibition skills to express and promote their artwork.

DESIGN – V

Course Code: BFA 509

Credit Units: 03

COURSE OUTCOMES (CO)

CO1 Students shall develop understanding and deep knowledge of the advertising skill

CO2 Students shall develop the ability to *see*, analyze, and work with different softwares.

CO3 Students will develop the ability to work in variety of media and softwares.. They shall be able to interpret and engage with existing visual communication in design.

PACKAGING – III

Course Code: BFA 510

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Recognize and learn a variety of professional practices (technical, conceptual and practical), catering to career and higher education opportunities and applying that knowledge by developing a personalized career plan.

CO2 Apply research and conceptualization to their assignments and presentations. They shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

CO3 Show proficiency essential to independent & collaborative work of Art- Including an independent work ethic & motivation-the ability to generate one's own ideas and the confidence to exhibit them- motivation for creative practice.

COMPUTER GRAPHICS – III

Course Code: BFA 511

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Recognize and learn a variety of professional practices (technical, conceptual, and practical), catering to computer graphics and applying that knowledge by developing a personalized career plan.

CO2 Students will learn to use multiple graphics in different ways.

CO3 They shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

ADVERTISING THEORY - III

Course Code: BFA 512

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Recognize and learn a variety of professional practices (technical, conceptual, and practical), catering to career and higher education opportunities and applying that knowledge by developing a personalized career plan.

CO2 Students will learn deferent types of advertising media

CO3 They shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

CO4 Show proficiency essential to independent & collaborative work of Art- Including an independent work ethic & motivation-the ability to generate one's own ideas and the confidence to exhibit them- motivation for creative practice.

(SPECIALISATION- PAINTING)

DRAWING - V

Course Code: BFA 513

Credit Units: 03

COURSE OUTCOMES (CO)

CO1 Students shall develop an understanding of drawing and sketching.

CO2 Students will develop the ability to see, analyze, and understand different types of body propotion

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist. Students shall develop the essential stagecraft and exhibition skills to express and promote their art.

PAINTING - V

Course Code: BFA 514

Credit Units: 03

COURSE OUTCOMES (CO)

CO1 Students will enhance their skills in observing the visible world in a creative manner.

Students shall develop understanding and deep knowledge of different types of colouring methods by practicing various colouring materials available to them.

CO2 Students will improve their working skills by rigorous practice and that will lead to a spontaneous and personalized style of creativity.

CO3 Students will develop the ability to understand the aesthetical values by critically assessing of their artworks through the interactions with faculties & peers.

CO4 Students shall develop a professional approach in exhibiting their works, also improve their skills to express and promote their art works.

COMPOSITION - III

Course Code: BFA 515

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will enhance their skills in observing the visible world in a creative manner .Students shall develop understanding and deep knowledge of different types of colouring methods by practicing various colouring materials available to them.

CO2 Students will improve their working skills by rigorous practice and that will lead to a spontaneous and personalized style of creativity.

CO3 Students will develop the ability to understand the aesthetical values by critically assessing of their artworks through the interactions with faculties & peers.

CO4 Students shall develop a professional approach in exhibiting their works, also improve their skills to express and promote their art works.

Print Making – V

Course Code: BFA 516

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will develop an understanding of different types of materials of print making

CO2 Students shall develop understanding and deep knowledge of different art techniques and mediums.

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

PAINTING METHODS AND MATERIALS – III

Course Code: BFA 517

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will demonstrate an understanding of basic art making, its theory and its application in Design- basic creative skills in every kind of composition [portrait, landscape, design, live sketching]

CO2 Students shall develop understanding and deep knowledge of different art techniques and mediums.

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as an artist.

CO4 Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

SEMETER VI

HISTORY OF ART - VI

Course Code: BFA 601

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students shall develop a high level of fluency with visual theories.

CO2 Students shall develop understanding and deep knowledge of the European history

CO3 Students shall develop the ability to *see*, analyze, and compare historical and contemporary art techniques and art movements.

CO4 Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures and media

AESTHETICS - IV

Course Code: BFA 602

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Student shall develop high level of fluency with visual theories.

CO2 Students shall develop understanding and deep knowledge of the fundamentals of Art [Elements and Principles of Design]. Students shall develop the ability to see, analyze, and compare historical and contemporary art techniques and art movements.

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures and media.

EXHIBITION- DISPLAY DESIGN STAGECRAFT

Course Code: BFA 619

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Student shall develop high level of fluency with visual exhibition and stagecraft theories

CO2 Students shall develop understanding and deep knowledge of the fundamentals of setting up an exhibition.

CO3 Students shall develop the ability to see, analyze, and compare historical and contemporary art exhibitions. They shall be able to engage with audience and other stakeholders

Course Title: Anandam

Semester VI

Course Code:AND006

Credit Units: 02

Course Learning Outcomes:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

COMMUNICATION SKILLS - IV

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS601	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Demonstrate professional attitude needed for interview preparedness, power dressing, and respectful self orientation.
CO 2	Showcase their leadership skills with effective team work.
CO 3	Outline the basic etiquettes in expressing their personality individually and in group.

BEHAVIOURAL SCIENCE - VI

(STRESS AND COPING STRATEGIES)

Course Code: BSS 604

Credit Unit: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) would be able to:

1. Identify stress and that an individual come across.
2. Recognize the causes of stress in their lives.
3. Analyze symptoms and how they are affecting lives.
4. Create ways to effectively cope with it.

FRENCH - VI

Course Code: FLN 601

Credit Units: 02

COURSE OUTCOMES (CO)

- CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language.
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

GERMAN - VI

Course Code: FLG 601

Credit Units: 02

COURSE OUTCOMES (CO)

- CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

SPANISH – VI

Course Code: FLS 601

Credit Units: 02

COURSE OUTCOMES (CO)

- CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language.
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

CHINESE – VI

Course Code: FLC 601

Credit Units: 02

COURSE OUTCOMES (CO)

- CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language
- CO2 Students will be able to read and interpret small texts of advance level.
- CO3 Students will be able to communicate with complex sentences.

(SPECIALISATION- SCULPTURE)
METAL CASTING - II

Course Code: BFA 603

Credit Units: 03

COURSE OUTCOMES (CO)

- CO1 Students will learn about casting and pouring process. Students will learn metal pouring into a mould cavity to get desired shape .
-
- CO2 Students will develop understanding of different methods and material involved in metal casting.
- CO3 Students will develop their own voice as an artist. Students shall develop the essential skills to develop and express their work.

COMPOSITION - IV

Course Code: BFA 604

Credit Units: 03

COURSE OUTCOMES (CO)

CO1 Students will enhance their skills in observing the visible world in a creative manner. Students shall develop understanding and deep knowledge of different types of colouring methods by practicing various colouring materials available to them.

CO2 Students will improve their working skills by rigorous practice and that will lead to a spontaneous and personalized style of creativity.

CO3 Students will develop the ability to understand the aesthetical values by critically assessing of their artworks through the interactions with faculties & peers.

CO4 Students shall develop a professional approach in exhibiting their works, also improve their skills to express and promote their art works.

CERAMICS - IV

Course Code: BFA 605

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students shall develop understanding and deep knowledge of the fundamentals of clay modeling.

CO2 Students shall develop the ability to *see*, analyze, and work with different techniques and processes in clay.

CO3Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as an artist. They shall be able to interpret and engage with existing visual cultures.

ASSEMBLAGE - IV

Course Code: BFA 606

Credit Units: 02

COURSE OUTCOMES (CO)

CO1Students shall develop an understanding of basic assemblage by combing different mediums.

CO2Students will develop the ability to see, analyze, and critique artworks as an artist.

CO3Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as an artist.

SCULPTURE METHODS AND MATERIALS – IV

Course Code: BFA 607

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students shall develop an understanding of methods and material.

CO2Students will develop the ability to see, analyze, and critique artworks as an artist.

CO3Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4Students will develop their own voice as an artist. Students shall develop the essential skills to express and promote their art works

(SPECIALISATION- APPLIED ART)

DRAWING AND ILLUSTRATION – IV

Course Code: BFA 608

CreditUnits: 03

COURSE OUTCOMES (CO)

CO1 Students shall develop an understanding of drawing and sketching.

CO2 Students will develop the ability to see, analyze, and understandits philosophies.

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4 Students will develop their own voice as an artist. Students shall develop the essential stagecraft and exhibition skills to express and promote their artwork.

DESIGN – IV

Course Code: BFA 609

Credit Units: 03

COURSE OUTCOMES (CO)

CO1 Students will understand basic visual language and various methods of form synthesis.

CO2 Students will develop intellectual and imaginative abilities in creative thinking.

CO3 Students will learn technical know-how about the principles of design, distribution of space, proportion, behaviour of force and energy contained in lines, form and colour.

CO4 Students will learn different media to develop systematic and intuitive approaches to creative work.

PACKAGING – II

Course Code: BFA 610

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Student will be able to recognize and learn a variety of professional practices (technical, conceptual, and practical), catering to career and higher education opportunities and applying that knowledge by developing a personalized career plan.

CO2 Analyze, compare, and evaluate historical and contemporary art techniques and art movements and philosophies including Indian and Western art.

CO3 Students will be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

CO4 Students will be able to show proficiency essential to independent & collaborative work of Art- Including an independent work ethic & motivation- the ability to generate one's own ideas and the confidence to exhibit them- motivation for creative practice.

COMPUTER GRAPHICS – IV

Course Code: BFA 611

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will be able to recognize and learn a variety of professional practices (technical, conceptual, and practical), catering to career and higher education opportunities and applying that knowledge by developing a personalized career plan.

CO2 Students will be able to Analyze, compare, and evaluate historical and contemporary art techniques and art movements and philosophies including Indian and Western art. Develop and Apply research and conceptualization to their assignments and presentations.

CO3 Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

CO4 Students will be able to show proficiency essential to independent & collaborative work of Art- Including an independent work ethic & motivation-the ability to generate one's own ideas with confidence to exhibit them- motivation for creative practice.

ADVERTISING THEORY - IV

Course Code: BFA 612

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will be able to recognize and learn a variety of advertising theory

CO2 Students will be able to Analyze, compare, and evaluate historical and contemporary advertising.

CO3 Students will be able to interpret and engage with existing visual culture and media in creative advertising.

CO4 Students will be able to show proficiency essential to independent understanding of the advertising world.

(SPECIALISATION- PAINTING)

PAINTING - VI

Course Code: BFA 613

Credit Units: 03

CO1 Students will enhance their skills in observing the visible world in a creative manner. Students shall develop understanding and deep knowledge of different types of colouring methods by practicing various colouring materials available to them.

CO2 Students will improve their working skills by rigorous practice and that will lead to a spontaneous and personalized style of creativity.

CO3 Students will develop the ability to understand the aesthetical values by critically assessing of their artworks through the interactions with faculties & peers.

CO4Students shall develop a professional approach in exhibiting their works, also improve their skills to express and promote their art works

MURAL - VI

Course Code: BFA 614

Credit Units: 03

COURSE OUTCOMES (CO)

CO1Students shall develop an understand

CO2Students will develop the ability to see, analyze, and critique artworks as an artist and understand its philosophies

CO3 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO4Students will develop their own voice as an artist. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

COMPOSITION - IV

Course Code: BFA615

Credit Units: 02

COURSE OUTCOMES (CO)

CO1Students will enhance their skills in observing the visible world in a creative manner. Students shall develop understanding and deep knowledge of different types of colouring methods by practicing various colouring materials available to them.

CO2Students will improve their working skills by rigorous practice and that will lead to a spontaneous and personalized style of creativity.

CO3Students will develop the ability to understand the aesthetical values by critically assessing of their artworks through the interactions with faculties & peers.

CO4Students shall develop a professional approach in exhibiting their works, also improve their skills to express and promote their art works

DRAWING - VI

Course Code: BFA 616

Credit Units: 02

COURSE OUTCOMES (CO)

develop the ability to see, analyze, and understand its philosophies

CO2 Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO3 Students will develop their own voice as an artist. Students shall develop the essential stagecraft and exhibition skills to express and promote their artwork.

PAINTING METHODS AND MATERIALS - IV

Course Code: BFA 617

Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will demonstrate an understanding of basic art making, its theory and its application in Design- basic creative skills in every kind of composition [portrait, landscape, design, live sketching]

CO2 Students shall develop understanding and deep knowledge different art techniques and mediums. Students will develop the ability to receive critiques of their artworks from instructor & peers.

CO3 Students will develop their own voice as an artist .Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

SEMETER VII

HISTORY OF ART - VII

Course Code: BFA 701 Credit Units: 02

COURSE OUTCOMES (CO)

CO1- Students will recognize and understand famous artists of Western Art, their methods and theories of art movements and timeline where they will be able to assess the qualities of works of art in their historical and cultural settings.

CO2- They will use innovative theoretical and methodological approaches to generate new approaches to the history of representation understood within broader socio-cultural perspectives.

CO3- Students will be able to locate, interpret and analyze primary and secondary sources relevant to art research.

AESTHETICS - V

Course Code: BFA 702 Credit Units: 02

COURSE OUTCOMES (CO)

CO1- When encountering a work of imagination, the learner evaluates the process of its creation and interprets the work in aesthetic terms.

CO2- Students integrate sensitivity to aesthetic criteria into their output in varied contexts.

CO3 Students will understand basics of different art forms and concept of beauty and impact of art on the human mind.

CO4- Enhance artistic and aesthetic sensibilities among the learner to enable them to respond and appreciate the beauty in different art forms.

PRACTICAL TRAINING - II

Course Code: BFA 719 Credit Units: 02

CO1- Students skillfully create artistic forms using techniques and methods.

CO2- Students will focus on their practice, act upon their ideas and continue to learn over the length of their career.

CO3- Students identifies tools, equipment and materials used in different art forms under visual art.

CO4- Students will learn elements of Visual Arts (line, shape, form, texture, colour, composition and perspective)

CO5- Students will be able to select appropriate media to convey specific artistic expression that effectively communicates artist intent.

CO6- Students will gain awareness of common computer graphics software.

CO7- Students will learn traditional, digital and cut-out animation.

Course Title: Anandam

Semester VII

Course Code:AND007 Credit Units: 02

Course Learning Outcomes:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

Communication Skills

Course Name	Course Code	LTP	Credit	Semester
Professional Communication Skills	BCS701	1:0:0	1	1

COURSE OUTCOMES (CO)

CO 1	Investigate their personal strengths and insights to be revealed in a Formal Setup of Communication.
CO 2	Create right selection of words and ideas while choosing the appropriate channel of formal communication
CO 3	Apply acquired knowledge with the appropriate selection of channel of formal communication.
CO 4	Develop and empower self with the ease of using appropriate medium of communication.

BEHAVIOURAL SCIENCE - VII (INDIVIDUAL, SOCIETY AND NATION)

Course Code: BSS704 Credit Units: 01

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) should be able to:

1. Recognize their personality and individual differences and identify its importance of diversity at workplace and ways to enhance it.
2. Recognize effective socialization strategies and importance of patriotism and taking accountability of integrity.
3. Recognize different types of human rights and its importance.
4. Identify Indian values taught by different religions.

Identify long term goals and recognize their talent, strengths and styles to achieve them

FRENCH - VII

Course Code: FLN 701 Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language

CO2 Students will be able to read and interpret small texts of advance level.

Students will be able to communicate with complex sentences.

GERMAN - VII

Course Code: FLG 701 Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language

CO2 Students will be able to read and interpret small texts of advance level.

CO3 Students will be able to communicate with complex sentences.

SPANISH - VII

Course Code: FLS 701 Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language

CO2 Students will be able to read and interpret small texts of advance level.

CO3 Students will be able to communicate with complex sentences.

CHINESE – VII

Course Code: FLC 701 Credit Units: 02

COURSE OUTCOMES (CO)

CO1 Students will hone advanced language skills such as reading, writing, speaking, listening & interactive) in the language

CO2 Students will be able to read and interpret small texts of advance level.

CO3 Students will be able to communicate with complex sentences.

(SPECIALISATION- SCULPTURE)

LIFESTUDY -V

Course Code: BFA 703 Credit Units: 03

COURSE OUTCOMES (CO)

CO1- Students shall develop an understanding of basic anatomy with an emphasis on three-dimensional design and the ability to apply these principles to a specific aesthetic intent.

CO2- Students will develop how to make anatomical structure and model by using clay.

CO3- Students get knowledge and skills in the use of basic tools, technique and processes to work from concept to finished product.

COMPOSITION - V

Course Code: BFA 704 Credit Units: 03

COURSE OUTCOMES (CO)

CO1- Students will understand basic principles of design, concepts and format of sculpture.

CO2- Students will get knowledge how to communicate through sculptural vocabulary in order to engage in critical conversation about art and sculpture.

CO3- Students will express connections to personal experience through reductive sculpture making and different techniques.

METAL CASTING - III

Course Code: BFA 705 Credit Units: 02

COURSE OUTCOMES (CO)

CO1- Students will learn about casting and pouring process. Students will learn metal pouring into a mould cavity to get desired shape.

CO2- Students will develop understanding of different methods and material involved in metal casting.

CO3- Students will also learn how metal sculptures were made from ancient till now means in-depth study of famous metal sculpture and their process.

CERAMICS - V

Course Code: BFA 706 Credit Units: 02

COURSE OUTCOMES (CO)

CO1-Students shall develop understanding and deep knowledge of the fundamentals of clay modeling.

CO2-Students shall develop the ability to *see*, analyze, and work with different techniques and processes in clay.

CO3- Students will learn how ceramics can be used in a variety of settings to showcase beauty and creativity.

CO4 – They will learn simple pottery by Coil method

SCULPTURE METHODS AND MATERIALS - V

Course Code: BFA 707 Credit Units: 02

COURSE OUTCOMES (CO)

CO1- Students shall develop an understanding of different methods such as carving, casting, relief, modeling, etc. and material involved in sculpture.

CO2- Students will learn how different materials require different techniques i.e. every metals have different melting temperature.

CO- Students will develop essential skills and by knowing different materials they will get to know in which medium they will express their work in a very creative manner.

(SPECIALISATION- APPLIED ARTS)

DRAWING AND ILLUSTRATION – V

Course Code: BFA 708 Credit Units: 03

CO1- Students shall develop an understanding of basic drawing and sketching.

CO2- Students will develop the ability to see, analyze, and understand the concepts of illustration.

CO3-Students will demonstrate proficiency with classical and experimental drawing techniques.

CO4- Students will demonstrate in visual vocabulary through illustration.

DESIGN - VII

Course Code: BFA 709 Credit Units: 03

CO1- Students will be able to understand the concept of design. They will be able to design, taking ideas from natural objects and their surroundings. They will learn different types of designs and their purpose in everyday life.

CO2- They will be able to understand the quality of lines, shapes, forms and their behaviour when they are in proximity to each other. It will help students to create a sense of intuitive balance and rhythm with the help of designs.

CO3- Students will learn technical about the principles of design, distribution of space, proportion, behavior of force and energy contained in lines, form and colour.

CO4- Students will learn different media to develop systematic and intuitive approaches to creative work..

PACKAGING - III

Course Code: BFA 710 Credit Units: 02

CO1 Student will be able to recognize and learn a variety of professional practices (technical, conceptual, and practical), catering to career and higher education opportunities and applying that knowledge by developing a personalized career plan.

CO2 Analyze,compare, and evaluate historical and contemporary art techniques and art movements and philosophies including Indian and Western art.

CO3 Students will be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

CO4 Students will be able to show proficiency essential to independent & collaborative work of Art- Including an independent work ethic & motivation-the ability to generate one's own ideas and the confidence to exhibit them- motivation for creative practice.

COMPUTER GRAPHICS – V

Course Code: BFA 711 Credit Units: 02

CO1- Students will be able to recognize and learn a variety media and software.

CO2- Student will be able to Analyze, compare, and evaluate historical understanding of different media.

CO3- Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

CO4- Students will be able to show proficiency essential to independent & collaborative work of computer graphics with confidence.

CO5- Students will be able to understand computer technology used in the area of art. They will be able to operate computers and use them for their artistic purpose. They will learn the different types of basic software and graphic software, which are widely used for the graphical representation.

ADVERTISING THEORY – V

Course Code: BFA 712 Credit Units: 02

CO1- Students will Recognize and learn about variety of advertising theories

CO2- Students will learn to Analyze, compare, and evaluate historical and contemporary advertising theories.

CO3- Students shall be able to interpret and engage with existing advertising culture.

CO4- Students will be able to show proficiency and generate one's own idea with confidence in advertising world.

(SPECIALISATION- PAINTING) DRAWING - VII

Course Code: BFA713 Credit Units: 03

CO1- Students shall develop an understanding of basic drawing and sketching.

CO2- Students will demonstrate an ability to draw the human figure through observation.

CO3- Students will be able to draw any shapes, forms and ideas and understand the relationship of line, space and form.

CO4- Student will be able to understand the concept of line. They will be able to draw the objects using different types of lines. Students exhibit capacity to create volume with the help of lines and draw with intuitive attitude. Synchronization of hand and eye will be well established and students can work in tandem to create any piece of art.

CO5- Applying an understanding of basic drawing skills, gesture, proportion, foreshortening and artistic anatomy.

PAINTING - VII

Course Code: BFA 714 Credit Units: 03

CO1- Students will be able to understand the concept of colours. They will be able to paint and handle different kinds of colours and mediums. Students will be able to see the colours in natural as well as artificial light. They will be able to draw a conclusive opinion about the behavior of colours in different environments.

CO2 Students will improve their working skills by rigorous practice and that will lead to a spontaneous and personalized style of creativity.

CO3- Students will develop practical skills for original and creative visual expression.

CO4- Students will demonstrate an ability to colour the human figure on 2-D surface through observation.

COMPOSITION – V

Course Code: BFA 715 Credit Units: 02

CO1-Students will learn how to compose their art works by using art principles or design elements with colours.

CO2-Students will improve their visual skills and they will learn how to express their art works by beautifully placements of objects in their composition by using colours.

CO3-Students will learn that composition is first and basic element in art and they will do experiments with colours where they will get new composition.

MURAL - VII

Course Code: BFA 716 Credit Units: 02

CO1-Students will learn how to prepare wall and design their composition in murals..

CO2- Students will learn process and colour technique in mural how they differ from easel painting.

.CO3- Students will develop their own composition and make a contemporary art mural on wall or different media.

PAINTING METHODS AND MATERIALS - V

Course Code: BFA 717 Credit Units: 02

CO1- Students will demonstrate an understanding of basic art making and its application in artwork- basic creative skills in every kind of composition of Jaipur Murals, Ceramics, glass and terra-cotta tiles.

CO2- Students can analyze a variety of materials technique and aesthetically to produce and develop creative possibilities in two dimensional art.

CO3- Students will learn different medium and application of painting.

SEMETER VIII

(SPECIALISATION- SCULPTURE)

PORTFOLIO DEVELOPMENT AND PRESENTATION

Course Code: BFA 801

Credit Units: 19

COURSE LEARNING OUTCOMES

CO 1 The students begin working in their own individual style after exercising and experimentation in various mediums, techniques, and tools.

CO 2 The students are to prepare a portfolio which contains a body of work to be presentable for future plans and prospects.

CO 3 This emphasizes more in developing creativity than mere skill.

CO 4 It helps to express their individual perception which is to be original in nature. This is more to perform as a professional artist and not just a mere learner.

(SPECIALISATION- APPLIED ARTS)

PORTFOLIO DEVELOPMENT AND PRESENTATION

Course Code: BFA 802

Credit Units: 19

COURSE LEARNING OUTCOMES

CO 1 The students begin working in their own individual style after exercising and experimentation in various techniques and tools.

CO 2 The students are to prepare a portfolio which contains a body of work to be presentable for future plans and prospects.

CO 3 This emphasizes more in developing creativity than mere skill.

CO 4 It helps to express their individual perception which is to be original in nature. This is more to perform as a professional artist and not just a mere learner.

SPECIALISATION- PAINTING)

PORTFOLIO DEVELOPMENT AND PRESENTATION

Course Code: BFA 803

Credit Units: 19

COURSE LEARNING OUTCOMES

CO 1 The students begin working in their own individual style of painting after exercising and experimentation in various techniques of painting medium over the years.

CO 2 The students are to prepare a portfolio which contains a body of work to be presentable for future plans and prospects.

CO 3 The students can work in one particular style, theme and medium of painting.

CO 4 This emphasizes more in developing creativity than mere skill.

CO 5 It helps to express their individual perception which is to be original in nature. This is more to perform as a professional artist and not just a mere learner.



AMITY UNIVERSITY
— R A J A S T H A N —

**AMITY SCHOOL OF FINE ARTS
(ASFA)**

Master of Fine Arts - Applied Arts

Programme Code: MFA

12010

Duration – 2 Years Full Time

Programme Structure

Credit Summery

MFA PG (APPLIED ARTS/PAINTING) (2 years/ 4 semesters)						
Semester	Core Course CC	Domain Electives DE	Value Added Course VA	Open Electives OE	Non- Teaching Credit Courses (NTCC) (Anadam)	Total
1	-	22	4		6	32
2	-	22	4	3	6	35
3	-	22	4	3	12	41
4	-	22			4	26
Total	-	88	12	6	28	134

Core	CC
Domain Electives	DE
Value Added Course	VA
Open Electives	OE
Non - Teaching Credit Courses (NTCC)	NTCC

Program Specific Outcomes (PSOs)

- PSO1: Recognize and learn a variety of professional practices (technical, conceptual and practical), catering to career and higher education opportunities and applying that knowledge by developing a personalized career plan
- PSO2: Analyze, compare, and evaluate historical and contemporary art techniques and art movements and philosophies including Indian and Western art. Develop and Apply research and conceptualization to their assignments and presentations.
- PSO3: They shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.
- PSO4: Show proficiency essential to independent & collaborative work of Art- Including an independent work ethic & motivation-the ability to generate one's own ideas and the confidence to exhibit them- motivation for creative practice.

Program Structure

AMITY SCHOOL OF FINE ARTS (ASFA)

Master of Fine Arts - Applied Arts

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MFA101	Advertising & Marketing Research – I	2	2	-	4
BCS 111	Communication Skills – I	1	-	-	1
BSS 111	Behavioural Science I (Self Development and Interpersonal Skills)	1	-	-	1
Language / Foreign Language – I					
FLN 111	French				
FLG 111	German	2	-	-	2
FLS 111	Spanish				
FLC 111	Chinese				
MFA 102	Visualization - I	2	4	6	9
MFA 103	Graphic Designing – I				
Or					
MFA 104	TV Graphics - I	2	4	6	9
Or					
MFA 105	Illustration - I				
MFA 106	Report & Viva (Applied Arts) - I	-	-	-	4
AND 001	Anandam-I	0	0	0	2
	TOTAL				32

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MFA 201	Advertising & Marketing Research – II	2	2	-	4
BCS 211	Communication Skills - II	1	-	-	1
BSS 211	Behavioural Science – II (Problem Solving and Creative Thinking)	1	-	-	1
FLN 211 FLG 211 FLS 211 FLC 211	Language / Foreign Language - II French German Spanish Chinese	2	-	-	2
MFA 202	Visualization - II	2	4	6	9
MFA 203 MFA 204 MFA 205	Graphic Designing - II Or TV Graphics - II Or Illustration - II	2	4	6	9
MFA 206	Report & Viva (Applied Arts) - II	-	-	-	4
	Open Elective -1	-	-	-	3
AND 002	Anandam-II	0	0	0	2
	TOTAL				35

THIRD SEMESTER

Course Code	Course Title	Lecture s (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MFA 301	Advertising & Business Organization - I	2	2	-	4
BCS 311	Communication Skills - III	1	-	-	1
BSS 311	Behavioural Science – III (Leading Through Teams)	1	-	-	1
FLN 311 FLG 311 FLS 311 FLC 311	Language / Foreign Language - III French German Spanish Chinese	2	-	-	2
MFA 302	Visualization - III	2	4	6	9
MFA 303 MFA 304 MFA 305	Graphic Designing - III Or TV Graphics - III Or Illustration - III	2	4	6	9
MFA 306	Dissertation & Viva (Applied Arts) – I	-	-	-	4
MFA 307	Practical Training (Evaluation)	-	-	-	6
	Open Elective -1	-	-	-	3
AND 003	Anandam-III	0	0	0	2
	TOTAL				41

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours per week	Tutorial (T) Hours per week	Practical (P) Hours per week	Total Credits
MFA 401	Advertising & Business Organization - II	2	2	-	4
MFA 402	Visualization - IV	2	4	6	9
MFA 403	Graphic Designing - IV	2	4	6	9
MFA 404	Or TV Graphics - IV				
MFA 405	Or Illustration - IV				
MFA 406	Dissertation & Viva (Applied Arts) – II	-	-	-	4
	TOTAL				26

COURSE OUTCOMES

AMITY SCHOOL OF FINE ARTS (ASFA)

Master of Fine Arts - Applied Arts

Course Code:AND001

Semester I

Anandam

Course Outcomes:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

COMMUNICATION SKILLS – I

Course Name	Course Code
Professional Communication Skills	BCS 111

CO 1	Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
CO 2	Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
CO 3	Apply their acquired knowledge with the appropriate selection of channel of formal communication.
CO 4	Develop and empower self with the power of Words.

BEHAVIOURAL SCIENCE - I
(SELF-DEVELOPMENT AND INTERPERSONAL SKILLS)
Course Code: BSS 111

Course Name	Course Code
BEHAVIOURAL SCIENCE - I (SELF-DEVELOPMENT AND INTERPERSONAL SKILLS)	BSS 111

COURSE OUTCOMES (CO)

CO 1	Develop your understanding of who you are; what your core purpose is, what your values are and what limits your success
CO 2	Manage your emotions and feelings more effectively to have the impact that you need
CO 3	Develop the way that you regulate and control your emotions
CO 4	Learn about your behavioral preferences to become more self-awareness

FRENCH - I

Course Code: FLN 111

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

GERMAN - I

Course Code:

FLG 111

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language

- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

SPANISH – I

Course Code :FLS 111

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

CHINESE – I

Course Code:FLC 111

Course Objectives:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

ADVERTISING AND MARKETING RESEARCH - I

Course name	Course code
ADVERTISING AND MARKETING RESEARCH - I	MFA 101

COURSE OUTCOMES

CO 1	CO 1 Students shall learn to make and demonstrate strategies on advertising and marketing.
CO 2	CO 2 Students will develop the ability to create branding and brand communication campaigns for products and services.
CO 3	CO 3 Students will convey ideas clearly and confidently in their work, speech, and writing.

VISUALIZATION – I

Course name	Course code
VISUALIZATION – I	MFA 102

COURSE OUTCOMES

CO 1	CO 1 Students will gain the knowledge of developing various concepts and ideas based on imagination.
CO 2	CO 2 Students will demonstrate an understanding Art theory and its application on Designs.
CO 3	CO 3 Students will develop the ability to convey ideas clearly and confidently in their work, speech, and writing.

GRAPHIC DESIGNING - I

Course name	Course code
GRAPHIC DESIGNING – I	MFA 103

COURSE OUTCOMES

CO 1	CO 1 Students shall recognize, identify and learn a variety of professional practices (ideation, visualisation and execution) with different form.
------	--

	Students shall develop their own voice as an artist/commercial artist.
CO 2	CO 2 Students will demonstrate an understanding of Painting theory and its application on canvas [the most], including color schemes, textures, different mediums, different art styles.
CO 3	CO 3 Convey ideas clearly and confidently in their work, speech, and writing.

TV GRAPHICS - I

Course name	Course code
TV GRAPHICS – I	MFA 104

COURSE OUTCOMES

CO 1	CO 1 Students will be able to develop visually appealing graphic compositions.
CO 2	CO 2 Students will demonstrate an understanding of story telling using different tools and techniques.
CO 3	CO 3 Students will develop theme based conceptual graphics for different purposes.

ILLUSTRATION - I

Course Code:

MFA 105

Course name	Course code
ILLUSTRATION – I	MFA 105

COURSE OUTCOMES

CO 1	CO 1 Students will work with various software using different tools and techniques to convey their message with illustrations
CO 2	CO 2 Students will demonstrate an understanding of the principles of design and apply it to their illustrations to make them more expressive.
CO 3	CO 3 Students will be able to conclude ideas clearly and confidently as they will be dealing with it as illustrators.

--	--

REPORT AND VIVA (APPLIED ARTS) - I

Course name	Course code
REPORT AND VIVA (APPLIED ARTS) – I	MFA 106

COURSE OUTCOMES

CO 1	CO 1. Students shall develop an understanding and deep knowledge of how corporate industry/ Artist works by investigating the different designs/ drawing techniques which will help them to have different opinions and work more efficiently.
CO 2	CO 2. Students will be able to wisely use the knowledge acquired in creating a design by applying the knowledge to the field research and report making.
CO 3	CO 3. Students will develop the ability to receive criticism from instructor & peers. Students will develop their own voice as a designer/artist. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence

HISTORY OF ART (PAINTING) – I

- CO 1 Student shall develop high level of fluency with visual theories.
- CO 2 Students shall develop understanding and deep knowledge of the fundamentals of Art [Elements and Principles of Design].
- CO 3 Students shall develop the ability to see, analyze, and compare historical and contemporary art techniques and art movements.
- CO 4 Students will develop the ability to receive critiques of their artworks from instructor & peers. They shall be able to interpret and engage with existing visual cultures and media.

DRAWING - I

1. Student shall learn to draw human figures in different poses and from different angles.
2. Students shall recognize, identify and learn a variety of professional practices (technical, conceptual and practical) with different mediums. Students shall develop their own voice as an artist.
3. Students will demonstrate an understanding of advanced drawing.
4. Students will be able to convey ideas clearly and confidently in their work.

5. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

CREATIVE PAINTING - I

Course Code:MFP 103

1. Students shall develop their imagination and idea generating qualities.
2. Students will develop an understanding of using their experience in their artwork.
3. Student will develop the ability to convey ideas clearly and confidently in their work.
4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.
5. Students shall develop their own style and imagination skills.

MURAL (PAINTING) - I

Course Code:MFP 104

1. Students shall learn to work on a permanent space which is not so easily movable.
2. Students will demonstrate an understanding of Mural theory and its application on the wall.
3. Students will learn to work on big spaces and handle technical challenges.
4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

PORTRAITURE – I

Course Code:MFP 105

1. Students will develop a broader understanding of developing a portrait.
2. Students will learn to do it live.
3. Students will understand to observe thoroughly and see characteristics of the subject in a far more better way.
4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

REPORT AND VIVA (PAINTING) - I

Course name	Course code	LTP	Credit	Semester
REPORT AND VIVA (PAINTING) – I	MFP 106	0/0/0	04	I

COURSE OUTCOMES

CO 1	CO 1. Students shall develop an understanding and deep knowledge of how corporate industry/ Artist works by investigating the different designs/ drawing techniques which will help them to have different opinions and work more efficiently.
CO 2	CO 2. Students will be able to wisely use the knowledge acquired in creating a design by applying the knowledge to the field research and report making.
CO 3	CO 3. Students will develop the ability to receive criticism from instructor & peers. Students will develop their own voice as a designer/artist. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence

SECOND-II SEMESTER

Course Title: Anandam

Type: Compulsory

Semester II

Course Code:AND002

COURSE OUTCOMES:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities

Critical thinking, Confidence and Efficiency

COMMUNICATION SKILLS - II

Course Name	Course Code
Professional Communication Skills	BCS211

COURSE OUTCOMES (CO)

CO 1	Investigate strengths and personal insights to be revealed in a Formal Setup of Communication.
CO 2	Create right selection of words and ideas while also choosing the appropriate networking channel for formal communication
CO 3	Recognize the mannerisms and methodology of Interview.

BEHAVIOURAL SCIENCE - II (BEHAVIOURAL COMMUNICATION AND RELATIONSHIP MANAGEMENT)

Course Code: BSS 211

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) would be able to:

1. Recognize the relation critical thinking with various mental processes.
2. Identify hindrance to problem solving processes.
3. Analyze the steps in problem-solving process.
4. Create plan of action applying creative thinking.

FRENCH - II

Course Code: FLN 211

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.

GERMAN – II

Course Code: FLG 211

Course Objective:

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

SPANISH – II

Course Code:

FLS 211

COURSE OUTCOMES :-

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.
- To enhance all five skills of the language: Reading, Writing, Listening, Interacting and speaking.
- Adjectives to describe people
- To talk about locations and places.
- To be able to form basic questions
- Counting till 100
- To be able to speak about daily Routine and verbs of daily usage both regular & irregular verbs.

CHINESE– II

Course Code:

FLC 211

COURSE OUTCOMES

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

ADVERTISING AND MARKETING RESEARCH - II

Course name	Course code
ADVERTISING AND MARKETING RESEARCH – II	MFA 201

COURSE OUTCOMES

CO 1	CO 1 Students will convey ideas clearly and confidently in their work.
CO 2	CO 2 Students will develop the ability to create branding and brand communication campaigns for products and services.
CO 3	CO 3 Students will learn to apply strategies on advertising and marketing. They will also learn to understand its challenges.

VISUALIZATION - II

Course Code:

MFA 202

COURSE OUTCOMES

CO 1	CO 1 Students will demonstrate an understanding art theory and its application on Designs. They will learn to see and differentiate.
CO 2	CO 2 Students will gain the knowledge of developing various concepts and ideas based on imagination. They will also learn to do the exercises which enables them for this more.
CO 3	CO 3 Students will develop the ability to convey ideas clearly and confidently in their work.
CO 4	Students will learn to add variation in the work

GRAPHIC DESIGNING - II

Course Code:

MFA 203

COURSE OUTCOMES :-

CO 1	CO 1 Students will be able to use software for graphics efficiently.
CO 2	CO 2 Students will demonstrate an understanding of the design principles and its application on various places with different techniques.
CO 3	CO 3 Students will learn commercial art in depth

TV GRAPHICS - II

Course Code:

MFA 204

COURSE OUTCOMES

CO 1	CO 1 Students will efficiently develop visually appealing graphic compositions.
CO 2	CO 2 Students will demonstrate an understanding of storytelling using different tools and techniques.
CO 3	CO 3 Students will develop theme based conceptual graphics for different purposes.
CO 4	CO 4 Students will learn to apply art on cinematic themes and graphics

ILLUSTRATION - II

Course Code:

MFA 205

CO 1	CO 1 Students will work with various software using different tools and techniques to convey their message with illustrations
CO 2	CO 2 Students will demonstrate an understanding of the principles of design and apply it to their illustrations to make them more expressive.
CO 3	CO 3 Students will be able to conclude ideas clearly and confidently as they will be dealing with it as illustrators.

REPORT AND VIVA (APPLIED ART) - II

Course name	Course code	LTP	Credit	semester
REPORT AND VIVA (APPLIED ARTS) - II	MFA 206	0/0/0	04	II

--	--	--	--	--

COURSE OUTCOMES

CO 1	CO 1. Students shall develop an understanding and deep knowledge of how corporate industry/ Artist works by investigating the different designs/ drawing techniques which will help them to have different opinions and work more efficiently.
CO 2	CO 2. Students will be able to wisely use the knowledge acquired in creating a design by applying the knowledge to the field research and report making.
CO 3	CO 3. Students will develop the ability to receive criticism from instructor & peers. Students will develop their own voice as a designer/artist. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence

HISTORY OF ART (PAINTING) – II
Course Code:MFP 201

1. Students shall develop a high level of fluency with visual theories.
2. Students shall develop understanding and deep knowledge of different civilizations and famous art styles
3. Students shall develop the ability to see, analyze, and compare historical and contemporary art techniques and art movements.

DRAWING - II

Course Code: MFP 202

1. CO Students will learn to develop a full live life study with a model.
2. CO Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as an artist.

3. CO Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

CREATIVE PAINTING - II

Course Code:MFP 203

1. Students shall develop their imagination and idea generating qualities.
2. Students will develop an understanding of using their experience in their artwork.
3. Student will develop the ability to convey ideas clearly and confidently in their work.
4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.
5. Students shall develop their own style and imagination skills.

MURAL (PAINTING) - II

Course Code: MFP 204

1. Students shall learn to work on a permanent space which is not so easily movable.
2. Students will demonstrate an understanding of Mural theory and its application on the wall.
3. Students will learn to work on big spaces and handle technical challenges.
4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

PORTRAITURE - II

Course Code: MFP 205

1. Students will develop a broader understanding of developing a portrait.
 2. Students will learn to do it live.
 3. Students will understand to observe thoroughly and see characteristics of the subject in a far more better way.
 4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.
-
1. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

REPORT AND VIVA (PAINTING) - II

Course name	Course code
REPORT AND VIVA (PAINTING) - II	MFP 206

COURSE OUTCOMES

CO 1	CO 1. Students will develop the ability to receive criticism from instructor & peers. Students will develop their own voice as a designer/artist. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence
CO 2	CO 2. Students will be able to wisely use the knowledge acquired in creating a design by applying the knowledge to the field research and report making.
CO 3	CO 3. Students shall develop an understanding and deep knowledge of how corporate industry/ Artist works by investigating the different designs/ drawing techniques which will help them to have different opinions and work more efficiently.

Course Title: Anandam
Type: Compulsory
Semester III
Course Code:AND003

COURSE OUTCOMES:

The student should develop:

- Awareness and empathy regarding community issues
- Interaction with the community and impact on society
- Interaction with mentor and development of Student teacher relationship
- Interaction among students, enlarge social network
- Cooperative and Communication skills and leadership qualities
- Critical thinking, Confidence and Efficiency

COMMUNICATION SKILLS - III

Course Name	Course Code
Professional Communication Skills	BCS311

COURSE OUTCOMES (CO)

CO 1	Develop an idea of professional work place
CO 2	Learn about the importance of interviews, etiquette.
CO 3	Learn the basic steps and techniques for preparing and for having a successful interview
CO 4	Demonstrate Workplace Speaking Skills.

BEHAVIOURAL SCIENCE - III (LEADING THROUGH TEAMS)

Course Code: BSS 311

COURSE OUTCOMES (COs)

At the successful completion of this course you (the student) should be able to:

1. Describe team design features and the difference between team and group, and components of the concept.
2. Identify the patterns of interaction in a team, method of studying attractions and repulsions in groupsociometry and construction of socio-gram for studying interpersonal relations in a Team.
3. Analyze various stages of team growth, team performance curve profiling a team: Role of leadership in managing team.
4. Differentiate between management values, pragmatic spirituality in life and organization building global teams through universal human values.
5. Demonstrate the leaning of teams, leadership and values, pragmatic spirituality in life and organization building global teams.

FRENCH - III

Course Code: FLN 311

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .

- Students will be able to communicate in small sentences in writing, self introduction, family description etc.

GERMAN - III

Course Code:

FLG 311

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.

SPANISH – III

Course Code:

FLS 311

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.
- Students will be able to communicate in small sentences in oral, self introduction, family description etc.
 - To enable the students to talk about a place like, class room, market, neighborhood and location of thing with the use of prepositions.
 - To talk about one's likes/dislikes, how one is feeling, to express opinions, pain and illness.
 - Time and date
 - Speaking about prices/currency/ market and quantity.
 - Counting above 100,
 - To discuss near future plans

CHINESE – III

- Students will hone Basic language skills such as reading, writing, speaking, listening & interactive in the language
- Students will be able to read and interpret small texts .
- Students will be able to communicate in small sentences in writing, self introduction, family description etc.

ADVERTISING AND BUSINESS ORGANIZATION – I

MFA 301

CO 1	CO 1 . Students will understand the philosophy of the organization (companies/institutions/Business firms etc.)that it needs a definite and constant visual image by which the organization is recognized and known.
CO 2	CO 2 Students will develop the ability to create branding and brand communication campaigns for products and services.
CO 3	CO 3Students shall learn to make and demonstrate strategies on advertising and marketing.
CO 4	CO 4 Students will convey ideas clearly and confidently in their work, speech, and writing.

VISUALIZATION - III

Course Code:

MFA 302

COURSE OUTCOMES

CO 1	CO 1 Students will gain the knowledge of developing various concepts and ideas based on imagination. They will be able to apply and showcase it.
CO 2	CO 2 Students will demonstrate an understanding of design principles and its use in commercial art
CO3	CO3 It will open new avenues for students careers
CO 4	CO 4Students will develop the ability to convey ideas clearly and confidently in their work, speech, and writing.

GRAPHIC DESIGNING - III

Course Code:

MFA 303

CO 1	CO 1 Students shall demonstrate the skills required to fix old images
CO 2	CO 2 Students will create graphic designs based on themes
CO 3	CO 3 Convey ideas clearly and confidently in their work

TV GRAPHICS - III

Course Code:

MFA 304

Credit Units: 09

COURSE OUTCOMES

CO 1	CO 1 Students will efficiently develop visually appealing graphic compositions.
CO 2	CO 2 Students will demonstrate an understanding of storytelling using different tools and techniques.
CO 3	CO 3 Students will develop theme based conceptual graphics for different purposes.
CO 4	CO 4 Students will learn to apply art on cinematic themes and graphics

ILLUSTRATION - III

Course Code:

MFA 305

CO 1	CO 1 Students will work with various software using different tools and techniques to convey their message with illustrations
CO 2	CO 2 Students will demonstrate an understanding of the principles of design and apply it to their illustrations to make them more expressive.
CO 3	CO 3 Students will be able to conclude ideas clearly and confidently as they will be dealing with it as illustrators.

DISSERTATION AND VIVA (APPLIED ARTS) - I

Course Code:

MFA 306

CO1	Students will develop an understanding of importance of research and documentation. They will understand the different types of research. This will help them to choose the best suitable and interesting area to work in their future
CO 2	Students shall develop understanding and deep knowledge of different types of advertisements handled by Advertising or Graphic designing Companies etc.
CO 3	Students shall be able to understand the importance of punctuality in work because in company atmosphere they will have to complete an project before time to present to the clients.
CO 4	Students will develop the ability to receive critiques of their artworks from instructor & Guide. Students will develop their own voice as an design artist after researching about different facts.
CO 5	Students shall develop an deep practical knowledge of how documentation and research is done in a company and how their design helps in achieving the objective

PRACTICAL TRAINING (Evaluation)

Course Code:

MFA 307

CO1	Students will demonstrate an understanding of basic elements of design and its application in Design and artwork.
CO 2	Students shall develop understanding and deep knowledge of how corporate industry/ Artist works by investigating the different designs/ drawing techniques which will help them to create different designs/artworks.
CO 3	Students will be able to wisely use the knowledge acquired in creating a design by applying the knowledge of elements and principles in the industry
CO4	Students shall develop the essential stagecraft and exhibition skills to express and promote their artwork
CO5	Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as a designer/artist. Students shall be able to interpret and engage with existing visual culture and

	media as a form of creative intelligence.
--	---

ART CRITICISM (PAINTING) - I

Course Code:

MFP 301

1. Student shall learn how to see and understand an artwork
2. Students will develop knowledge of deep art philosophies.
3. Students shall develop the ability to see, analyze, and compare historical and contemporary art techniques and art movements.
4. Students will develop the ability to receive critiques of their artworks from instructor & peers. They shall be able to interpret and engage with existing visual cultures and media.

DRAWING - III

Course Code:

MFP 302

1. CO Students will learn to develop a full live life study with a model.
2. CO Students will develop the ability to receive critiques of their artworks from instructor & peers.
3. CO Students will develop their own voice as an artist.
4. CO Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

CREATIVE PAINTING - III

Course Code:

MFP 303

1. This will lead to students to develop their own art style.
2. Students will develop their imagination and idea generating qualities.
3. Students will develop an understanding of using their experience in their artwork.
4. Student will develop the ability to convey ideas clearly and confidently in their work.

5. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.
6. Students shall develop their own style and imagination skills.

MURAL (PAINTING) - III

Course Code: MFP 304

1. Students shall learn to work on a permanent space which is not so easily movable.
2. Students will demonstrate an understanding of Mural theory and its application on the wall with color schemes, textures, different mediums, different art styles.
3. Students will learn to work on big spaces and handle technical challenges.
4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

PORTRAITURE - III

Course Code: MFP 305

1. Students will develop a broader understanding of developing a portrait.
2. Students will learn to do it live.
3. Students will understand to observe thoroughly and see characteristics of the subject in a far better way.
4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

DISSERTATION AND VIVA (PAINTING) - II

Course Code: MFP 306

CO1	Students will develop an understanding of importance of research and documentation. They will understand the different types of research. This will help them to choose the best suitable and interesting area to work in their future
CO 2	Students shall develop understanding and deep knowledge of different types of artwork and art projects handled by artists/studios/galleries.

CO 3	Students shall be able to understand the importance of punctuality in work
CO 4	Students will develop the ability to receive critiques of their artworks from instructor & Guide. Students will develop their own voice as an design artist after researching about different facts.
CO 5	Students shall develop an deep practical knowledge of how documentation and research is done in a gallery/studio and how their work helps in achieving the objective

PRACTICAL TRAINING (Evaluation)

Course Code: MFP 307

CO1	Students will demonstrate an understanding of basic elements of design and its application in artwork.
CO 2	Students shall develop understanding and deep knowledge of how Artist works by investigating the different designs/ drawing techniques which will help them to create different designs/artworks.
CO 3	Students will be able to wisely use the knowledge acquired in creating a design by applying the knowledge of elements and principles in the industry
CO4	Students shall develop the essential stagecraft and exhibition skills to express and promote their artwork
CO5	Students will develop the ability to receive critiques of their artworks from instructor & peers. Students will develop their own voice as a designer/artist. Students shall be able to interpret and engage with existing visual culture and media as a form of creative intelligence.

Course Code: MFA 401

CO 1	CO 1 . Students will understand the philosophy of the organization (companies/institutions/Business firms etc.)that it needs a definite and constant visual image by which the organization is recognized and known.
CO 2	CO 2 Students will understand the creation, execution, transmission and evaluation of commercial message in various media intended to promote and sell products, services and brands.
CO 3	CO 3 Students will develop the ability to create branding and brand communication campaigns for products and services.
CO 4	CO 4 Students shall learn to make and demonstrate strategies on advertising and marketing.
CO 5	CO 5 Students will convey ideas clearly and confidently in their work, speech, and writing.

VISUALIZATION - IV

Course Code: MFA 402

CO 1	CO 1 Students will gain the knowledge of developing various concepts and ideas based on imagination. They will be able to apply and showcase it.
CO 2	CO 2 Students will demonstrate an understanding of design principles and its use in commercial art
CO3	CO3 It will open new avenues for students' careers
CO 4	CO 4Students will develop the ability to convey ideas clearly and confidently in their work, speech, and writing.

GRAPHIC DESIGNING - IV

Course Code: MFA 403

CO 1	CO 1 Students will gain the knowledge of developing various concepts and ideas based on imagination. They will be able to apply and showcase it.
CO 2	CO 2 Students will demonstrate an understanding of design principles and its use in commercial art
CO3	CO3 It will open new avenues for students careers
CO 4	CO 4Students will develop the ability to convey ideas clearly and confidently in their work, speech, and writing.

TV GRAPHICS - IV

Course Code: MFA 404

COURSE OUTCOMES

CO 1	CO 1 Students will efficiently develop visually appealing graphic compositions.
CO 2	CO 2 Students will demonstrate an understanding of storytelling using different tools and techniques.
CO 3	CO 3 Students will develop theme based conceptual graphics for different purposes.
CO 4	CO 4 Students will learn to apply art on cinematic themes and graphics

ILLUSTRATION - IV

Course Code: MFA 405

CO 1	CO 1 Students will work with various software using different tools and
------	---

	techniques to convey their message with illustrations
CO 2	CO 2 Students will demonstrate an understanding of the principles of design and apply it to their illustrations to make them more expressive.
CO 3	CO 3 Students will be able to conclude ideas clearly and confidently as they will be dealing with it as illustrators.

DISSERTATION AND VIVA (APPLIED ARTS) – II

Course Code: MFA 406

CO1	Students will develop an understanding of importance of research and documentation. They will understand the different types of research. This will help them to choose the best suitable and interesting area to work in their future
CO 2	Students shall develop understanding and deep knowledge of different types of advertisements handled by Advertising or Graphic designing Companies etc.
CO 3	Students shall be able to understand the importance of punctuality in work because in company atmosphere they will have to complete an project before time to present to the clients.
CO 4	Students will develop the ability to receive critiques of their artworks from instructor & Guide. Students will develop their own voice as an design artist after researching about different facts.
CO 5	Students shall develop an deep practical knowledge of how documentation and research is done in a company and how their design helps in achieving the objective

ART CRITICISM (PAINTING) - II

Course Code: MFP 401

1. Students shall develop the ability to see, analyze, and compare historical and contemporary art techniques and art movements.
2. Student shall learn how to see and understand an artwork
3. Students will develop knowledge of deep art philosophies.

4. Students will develop the ability to receive critiques of their artworks from instructor & peers. They shall be able to interpret and engage with existing visual cultures and media.

DRAWING - IV

Course Code: MFP 402

1. CO Students will learn to develop a full live life study with a model.
2. CO Students will develop the ability to receive critiques of their artworks from instructor & peers.
3. CO Students will develop their own voice as an artist.
4. CO Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

CREATIVE PAINTING - IV

Course Code: MFP 403

1. This will lead to students to develop their own art style.
2. Students will develop their imagination and idea generating qualities.
3. Students will develop an understanding of using their experience in their artwork.
4. Student will develop the ability to convey ideas clearly and confidently in their work.
5. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.
6. Students shall develop their own style and imagination skills.

MURAL (PAINTING) - IV

Course Code: MFP 404

1. Students shall learn to work on a permanent space which is not so easily movable.
2. Students will demonstrate an understanding of Mural theory and its application on the wall with color schemes, textures, different mediums, different art styles.
3. Students will learn to work on big spaces and handle technical challenges.

4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

PORTRAITURE - IV

Course Code: MFP 405

1. Students will develop a broader understanding of developing a portrait.
2. Students will learn to do it live.
3. Students will understand to observe thoroughly and see characteristics of the subject in a far better way.
4. Students shall develop the essential stagecraft and exhibition skills to express and promote their art works.

DISSERTATION AND VIVA (PAINTING) - II

Course Code: MFP 406

CO1	Students will develop an understanding of importance of research and documentation. They will understand the different types of research. This will help them to choose the best suitable and interesting area to work in their future
CO 2	Students shall develop understanding and deep knowledge of different types of artwork and art projects handled by artists/studios/galleries.
CO 3	Students shall be able to understand the importance of punctuality in work
CO 4	Students will develop the ability to receive critiques of their artworks from instructor & Guide. Students will develop their own voice as an design artist after researching about different facts.
CO 5	Students shall develop an deep practical knowledge of how documentation and research is done in a gallery/studio and how their work helps in achieving the objective