

B.Sc. Mathematics (4 years) {Session: 2024-2028}									
Semester-Wise Programme structure									
Sr. No.	Year 1		Year 2		Year 3		Year 4		
	Sem 1	Sem 2	Sem 3	Sem 4	Sem 5	Sem 6	Sem 7	Sem 8 (Hons.)	Sem 8 (Hons. With Research)
1	Calculus (Course Code) [CU:4, L-4, P-0] {MCC}	Muti-variable Calculus (Course Code) [CU:4, L-4, P-0] {MCC}	Introduction to Real Analysis (Course Code) [CU:4, L-4, P-0] {MCC}	Introduction to Linear Algebra (Course Code) [CU:4, L-4, P-0] {MCC}	Set Theory and Metric Spaces (Course Code) [CU:4, L-4, P-0] {MCC}	Introduction to Complex Analysis (Course Code) [CU:4, L-4, P-0] {MCC}	Advanced Real Analysis (Course Code) [CU:4, L-4, P-0] {CCH}	Advanced Complex Analysis (Course Code) [CU:4, L-4, P-0] {CCH}	Advanced Complex Analysis (Course Code) [CU:4, L-4, P-0] {CCH}
2	Algebra and Geometry (Course Code) [CU:4, L-0, P-0] {MCC}	Ordinary Differential Equations (Course Code) [CU:4, L-4, P-0] {MCC}	Group Theory (Course Code) [CU:4, L-4, P-0] {MCC}	Introduction to Partial Differential Equations (Course Code) [CU:4, L-4, P-0] {MCC}	Advanced Algebra (Course Code) [CU:4, L-4, P-0] {MCC}	Discrete Mathematics (Course Code) [CU:4, L-4, P-0] {MCC}	Advanced Abstract Algebra (Course Code) [CU:4, L-4, P-0] {CCH}	Advanced Linear Algebra (Course Code) [CU:4, L-4, P-0] {CCH}	Design of Experiments (Course Code) [CU:4, L-4, P-0] {CCH}
3	Introduction to Probability Theory (Course Code) [CU:4, L-4, P-0] {MC}	Statistical Methods (Course Code) [CU:4, L-4, P-0] {MC}	Statistical Inference (Course Code) [CU:4, L-4, P-0] {MC}	Linear Programming (Course Code) [CU:4, L-4, P-0] {MCC}	Mathematical Logic (Course Code) [CU:4, L-4, P-0] {MCC}	Tensors and Differential Geometry (Course Code) [CU:4, L-4, P-0] {MCC}	Advanced Ordinary Differential Equations (Course Code) [CU:4, L-4, P-0] {CCH}	Design of Experiments (Course Code) [CU:4, L-4, P-0] {CCH}	Research Methodology and Ethics (Course Code) [CU:4, L-4, P-0] {MCC}
4	Fundamental Of Physics (Course Code) [CU:3, L-3, P-0] {MDC}	Object Oriented Programming Software (Course Code) [CU:4, L-2, P-2] {MDC}	Java Programming (Course Code) [CU:4, L-2, P-2] {MDC}	Mechanics (Course Code) [CU:4, L-4, P-0] {MC}	Laplace and Fourier Transform (Course Code) [CU:4, L-4, P-0] {MCC}	Evolutionary Algorithms for Optimization Problems (Course Code) [CU:4, L-4, P-0] {MCC}	Operational Research (Course Code) [CU:4, L-4, P-0] {MC}	Research Methodology and Ethics (Course Code) [CU:4, L-4, P-0] {MCC}	Mathematical Modelling (Course Code) [CU:4, L-4, P-0] {MC}

5	Punjabi Language and Literature -I/ History & Culture of Punjab-I (Course Code) [CU: 1, L-1, P-0] {AEC}	Punjabi Language and Literature -I/ History & Culture of Punjab-II (Course Code) [CU:1, L-1, P-0] {AEC}	Fundamental of Communication (Course Code) [CU:_2, L-_2, P-0] {AEC}	Professional Etiquette and Work place Communication (Course Code) [CU:_2, L-_2, P-0] {AEC}	Graph Theory (Course Code) [CU:4, L-4, P-0] {MC}	Introduction to Numerical analysis (Course Code) [CU:_6, L-4, P-_2] {MC}	DSE-I (Course Code) [CU:_4, L-4, P-0] {DSE}	Mathematical Modelling (Course Code) [CU:_4, L-4, P-_0] {MC}	Research Project/ Dissertation {CU: 4}
6	Introduction to French Culture and Language/German Culture and Language (Course Code) [CU: 1, L-1, P-0] {AEC}	French Grammar/ German Grammar (Course Code) [CU: 1, L-1, P-0] {AEC}	Mathematical Statistics with R (Course Code) [CU:_4, L-_1, P-3] {SEC}	C++ Programming for Mathematics (Course Code) [CU:_4, L-4, P-0] {SEC}	Logic and Sets (Course Code) [CU:2, L-2, P-0] {MC}		DSE-II (Course Code) [CU:_4, L-_4, P-_0] {DSE}		
7	Programming based on Mathematical Softwares (Course Code) [CU: 3, L-1, P-2] {SEC}	Introduction to LaTeX (Course Code) [CU: 3, L-1, P-2] {SEC}							
8	Environmental Studies 1 (Course Code) [CU:2, L-2, P-0] {VAC}	Environmental Studies 2 (Course Code) [CU:2, L-2, P-0] {VAC}							
9	Understanding Self for Effectiveness (Behavioural Science) (Course Code) [CU:_1, L-1, P-0] {VAC}	Individual, Society and Nation (Behavioural Science) (Course Code) [CU:_1, L-1, P-0] {VAC}	-	-	*Summer Internship (4 Cr)	-	-	-	-
Cr.	23	24	22	22	22+4	22	24	20	
Total Credit: Credit Layout as per Curriculum and Credit Framework Guidelines - UGC 2022						179+4			

M CC	Major Core Course (Discipline Specific Course)
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SEC	Skill Enhancement Course
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M C	Minor Course
M DC	Multidisciplinary Course
AE C	Ability Enhancement Course

VAC	Value Added Course
CCH	Core Course - Hons.
DSE	Discipline Specific Elective
MOOC	Massive Open Online Course

No te:	<i>(4 Cr of Summer Internship earned by students during summer Internship after Second Semester or Fourth Semester, will be taken into account in Fifth Semester of a student who pursue three year UG Programme without taking exit option).</i>
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