Amity Institute of Molecular Medicine & Stem Cell Research

Admission Prospectus

Explore our multidisciplinary undergraduate and postgraduate programs designed to generate specialized, highly skilled manpower for advanced basic and clinical research.

B.Sc. (Biochemistry) (Honours / Honours with Research)

Programme Description:

B.Sc. in Biochemistry is a four-year undergraduate program that combines both biological sciences, and chemistry including biochemical reaction and processes with relevant lab sessions to equip the students with knowledge to use biochemical skills in the field of human, animal, microbial, molecular biology, plant biology, agriculture, environment, health, and diseases. The curriculum provides breadth of courses that explore the use of new biology and covers the convergence of various technologies that have the potential to fundamentally change our operational, competitive and employment landscape as outlined by development of skills and competencies relevant in the Education 4.0 era of disruptive technologies. The curriculum is further designed following the NEP-2020 and UGC guidelines, which ensures more flexibility and employability of the students. The program has been designed such that students will have the option of multiple entry and exits in the program. If the student wishes to exit the program due to any circumstances or crises, they will not be devoid of a degree. At every stage they will be having Diploma or Certificate of specialization so that they are employable. The curriculum is further enriched by added advanced courses like Clinical Biochemistry, Industrial Biochemistry, Immunotherapy and vaccines, Fundamentals of Cancer, Molecular Docking and drug design, Basic Pharmacology, Artificial Intelligence, Omics, Genome Engineering etc.

Eligibility:

Min. 50% aggregate in 10+2 (Class XII) with Physics, Chemistry, and Biology (PCB) from a recognized board.

B.Sc. (Medical Lab Technology) (Honours / Honours with Research)

Programme Description:

The Bachelor of Science Program in medical laboratory technology is a full-time multidisciplinary undergraduate program of four-year duration. The program will serve the educational needs of the students by providing the skills required to perform laboratory procedures and a sound foundation of knowledge that will enable graduates to use critical thinking skills to make appropriate decisions in the collection, handling, and analysis of data so that accurate pathology of disease and diagnosis can be determined. The program will provide the educational background that will also allow graduates to succeed in a bachelor of science Medical Laboratory Science program and to play leadership roles in the field of laboratory medicine. MLT program will specifically train competent MLTs with the knowledge and skills necessary for entry level proficiency in all areas of medical laboratory science including: Biochemistry and Clinical Biochemistry, Microbiology, Hematology, Immunology, Immunohaematology, Histopathology, Anatomy and pathophysiology, Cytogenetics, Chemistry and Molecular diagnostics. Students receive both theoretical and experiential study, including a practical training in hospitals and diagnostic labs. The program will also provide students an appropriate level of communication skills and develop entrepreneurship skills to effectively disseminate research and technical information, including the practical implications of research analysis. Students of this course develop an ability to put what they learn in the greater context of the vibrant diversity of biological fields and pursue higher studies.

Eligibility:

Min. 50% aggregate in 10+2 (Class XII) with Physics, Chemistry, and Biology (PCB).

B.Sc. (Biomedical Science) (Honours / Honours with Research)

Programme Description:

B.Sc. in Biomedical Science is a four-year undergraduate program that combines life sciences, medical science, cell and molecular biology with relevant lab sessions to equip the students with knowledge to use biomedical science skills in the field of human, animal, microbial, molecular biology, environment, health, and diseases. The curriculum provides breadth of courses that explore the use of new biology knowledge and techniques and covers the convergence of various technologies that have the potential to fundamentally change our operational, competitive and employment landscape as outlined by development of skills and competencies relevant in the Education 4.0 era of disruptive technologies. The curriculum is further designed following the NEP-2020 and UGC guidelines, which ensures more flexibility and employability of the students. The program has been designed such that students will have the option of multiple entry and exits in the program. If the student wishes to exit the program due to any circumstances or crises, they will not be devoid of a degree. At every stage they will be having Diploma or Certificate of specialization so that they are employable. The curriculum is further enriched by added hospital based courses such as hospital systems, Biowaste management, Epidemiology and advanced courses like as disease pathology, Pharmacology and Toxicology, Medical Biophysics, Cellular and Molecular Basis of Disease, Clinical Tools in Biomedical Sciences, Genome Engineering and Editing, Biomedical Study desing, Nanomedicine etc.

Eligibility:

Non-Sponsored Category: Minimum 60% aggregate in Class XII and a minimum of 60% in the PCB combination (Physics, Chemistry, and Biology).
Sponsored Category: Minimum 55% aggregate in Class XII with a minimum of 60% in the PCB group.

M.Sc. (Molecular Medicine) / M.Sc. (Molecular Cancer Biology) / M.Sc. (Stem Cell & Regenerative Biology)

Programme Description:

The M.Sc. programs in Molecular Medicine, Stem Cell & Regenerative Biology, and Molecular Cancer Biology are full-time, two-year multidisciplinary postgraduate programs designed to generate specialized, highly skilled manpower for advanced basic and clinical human disease research. Operating on a shared foundation of multi-omics—including genomics, proteomics, metabolomics, and metagenomics—alongside next-generation tools like Big Data, Artificial Intelligence (AI), bioinformatics, and targeted drug design, these courses bridge the gap between theoretical knowledge and applied techniques. While Molecular Medicine focuses broadly on the cellular mechanisms, prevention, and diagnosis of systemic human diseases, Stem Cell & Regenerative Biology narrows its scope to cellular repair through hands-on training in tissue engineering, organoids, and cell culture. Meanwhile, Molecular Cancer Biology specializes deeply in the cellular and molecular genetics of oncology, uniquely integrating scientific communication and technical dissemination skills to prepare graduates for elite pathways in research, doctoral studies, healthcare, and the pharmaceutical or scientific publishing industries.

Eligibility:

Bachelor's degree (min. 60% marks) in Biomedical Sciences, Molecular Biology, Biotechnology, Microbiology, Biochemistry, Physiology, Genetics, Molecular Medicine, Chemistry, Pharmacy, or allied subjects.

Medical Track: MBBS or BDS degree with at least 50% aggregate.

M.Sc. (Biochemistry)

Programme Description:

The M.Sc. in Biochemistry is a two-year postgraduate program designed to integrate core concepts of biological sciences and chemistry with extensive laboratory training. The program equips students with in-depth knowledge in diverse areas including biochemistry, clinical biochemistry, biomolecules, molecular biology, genetics, microbiology, endocrinology, metabolism, bioenergetics, biostatistics, bioinformatics, artificial intelligence (AI), and biochemical as well as cellular signaling pathways. The curriculum offers a comprehensive range of courses that emphasize both fundamental and advanced aspects of biochemistry, with a focus on the application of modern techniques. It reflects the interdisciplinary nature of contemporary life sciences and addresses the convergence of emerging technologies poised to transform scientific research, healthcare, and industry. In alignment with the goals of Education 4.0, the program fosters competencies and skills relevant to navigating an era characterized by disruptive innovations and technological advancement. To enhance academic flexibility and improve employability, the curriculum includes specialized courses such as Research Methodology, Artificial Intelligence and Machine Learning, Medical Biophysics, Clinical Biochemistry, and Immunology and Immunochemistry. Additionally, students are encouraged to engage in self-paced learning through MOOCs, including NPTEL (National Programme on Technology Enhanced Learning) courses, ensuring a well-rounded and future-ready academic experience.

Eligibility:

Non-Sponsored Category: Minimum 60% aggregate marks in a relevant Bachelor's degree. Eligible degrees include:
Life Sciences Tracks: B.Sc. or B.Tech in Life Sciences, Biochemistry, Biotechnology, Microbiology, Bioinformatics, Molecular Biology, Biomedical Sciences, Zoology, Botany, Chemistry, Biology, Genetics, Molecular Medicine, Physiology, or Medical Physiology.

M.Sc. Clinical Embryology

Programme Mission:
To provide education at M.Sc level in Clinical Embryology and in the futuristic and emerging frontier areas of knowledge , learning and research and to develop the overall personality of students by making them not only excellent professionals but also good individuals with understanding and regards for human values , pride in their heritage and culture , a sense of right and wrong and yearning for perfection and imbibe attributes of courage of conviction and action.

Educational Qualifications:
Candidates must possess an MBBS degree or a Bachelor's degree in a relevant scientific field. Eligible undergraduate disciplines include:
Bio-medical Sciences / Biosciences / Life Sciences
Biotechnology / Biochemistry
Genetics / Zoology / Microbiology
Animal Sciences / Neurology
Minimum Marks: A minimum aggregate of 50% marks in the qualifying undergraduate degree

DCR (Diploma in Clinical ART)

Programme Description:
To provide education at Post-graduate level Diploma in Clinical ART and in the futuristic and emerging frontier areas of knowledge, learning and research and to develop Specialized skills in Assisted Reproductive Technology (ART). Overall personality of students by making them not only excellent Clinical professionals but also good individuals with understanding and regards for human values, pride in their heritage and culture, a sense of right and wrong and yearning for perfection and imbibe attributes of courage of conviction and action.

Educational Qualifications:
For Medical Clinicians: MBBS with an MD / MS / DNB in Medical Sciences (typically specialized in OBGYN or Pediatrics).
For Researchers: M.Sc. and Ph.D. in Genetics, Cytogenetics, or related Biomedical Sciences.