

BIOTECHNOLOGY – M.S.

Electives	5
Total (minimum)	45

The Master of Science degree in Biotechnology is targeting individuals who wish to become biomedical research technicians in universities, the biotechnology industry, or in medical laboratories with specialized research training. Our program is designed to provide students with the skills necessary to succeed in securing highly competitive positions in biomedical workforce of the 21st century. Students will be trained in techniques of biochemistry and molecular biology through competency-based teaching and research internships. The Program is approximately two years. The first year will consist of didactic courses and internship rotations that will provide hands-on training. Internship rotations will provide students with exposure to the research environments in multiple research laboratories from which the students will transition to external internships or job placements.

Admissions

Applicants must have a bachelor's degree from an accredited US college or the equivalent from a foreign university.

Guidelines for minimum scores are set by the Faculty of Graduate Studies:

GPA: 3.0 on a 4.0 scale.

TOEFL: iBT–100, paper-based–250

IELTS: 7.0

Entrance requirements include a full year of each of the following undergraduate courses:

General Biology, General Chemistry, Organic Chemistry, General Physics, and Biochemistry (a minimum of one quarter/semester).

Upper division Biology (such as Cell and Molecular Biology) and research experience are strongly recommended.

Calculus and linear algebra are also recommended.

Program Requirements

IBGS 501	Biomedical Communication and Integrity	2
IBGS 502	Biomedical Information and Statistics	2
IBGS 511	Cellular Mechanisms and Integrated Systems I	6
IBGS 512	Cellular Mechanisms and Integrated Systems II	6
IBGS 604	Introduction to Integrative Biology Presentation Seminar	1
NSBB 552	Data Analytics	3
BCHM 614	Advanced Techniques in Biochemistry	4
IBGS 537A	Special Topics in Biomedical Sciences	2
REL_ 5/600	Graduate-Level Religion Course	3
BCHM 697	Research	8
Track I: Bioinformatics and Genomics		10
NSBB 551	Introduction to Bioinformatics	2
BCHM 544	Advanced Topics in Biochemistry	3
NSBB 553	Advanced Bioinformatics – Sequence and Genome Analysis	4
Track II: Advanced Biotechnology		9
PHRM 584	Drug Metabolism and Biochemical Pharmacology	4