

BSc (HONS) IN BIOTECHNOLOGY



Faculty of Humanities and Sciences offers BSc (Hons) in Biotechnology for those who wish to pursue a career in the biotechnology industry and in Academia.

The programme provides appropriate theoretical and practical knowledge through lectures, laboratory experiments, research, industrial experience, field visits and internship programmes.

Covers a wide array of areas including Plant Agriculture, Animal Science, Environmental Management, Food Innovation, Bioinformatics, Genomics/ Proteomics, Genetic Engineering, Molecular Biology, Microbiology, Healthcare/ Beauty care/ Pharmaceuticals and Diagnostics.

Duration	: 4 years
Entry	: September/February/June
Location	: Malabe
Offered	: Weekdays
Examinations	: Weekdays/ Weekends

ACADEMIC AND PROFESSIONAL RECOGNITION

Approved by the Ministry of Higher Education, Sri Lanka

CAREER OPPORTUNITIES

- Academics - Lecturers
- Medical Laboratory: Scientists , Managers
- Biotechnologists in: Pharmaceuticals, Agriculture, Environmental Science, Plant and Animal Sciences, Nutrition, Forensics
- Bioinformaticians
- Science Journalists
- Research Scientists
- Clinical Research Associates

ENTRY REQUIREMENTS

Local A/L: Minimum of 3 "S" Passes with any combination of the following subjects: Biology, Chemistry, Physics, Combined Mathematics, Higher Mathematics, Agricultural Science, Science for Technology, Bio Systems Technology, Agro Technology or Bio-Resource Technology. Cambridge/Edexcel A/Ls: Minimum of 3 "D" Passes with any combination of the following subjects: Biology, Chemistry, Physics, Mathematics or Further Mathematics. Applicants should also pass the Aptitude Test conducted by SLIIT.

YEAR ONE

SEMESTER 01

BT1112	Analytical and Physical Chemistry	02
BT1121	Analytical and Physical Chemistry Laboratory	01
BT1133	Introduction to Biology	03
BT1142	English	02
BT1152	Introduction to Info. Technology	02
BT1163	Introduction to Biotechnology	03
BT1172	Laboratory Safety and Management	02

SEMESTER 02

BT1212	Organic Chemistry	02
BT1221	Organic Chemistry Laboratory	01
BT1233	Mathematics and Biophysics	03
BT1243	Introduction to Molecular Biology	03
BT1253	Microbiology	03
BT1263	Cell Biology	03
BT1272	Genetics	02

YEAR TWO

SEMESTER 01

BT2313	Animal and Human Physiology	03
BT2322	Introductory Bioinformatics	02
BT2332	Genome Structure and Organization	02
BT2343	Molecular Biology	03
BT2352	Plant Physiology	02
BT2363	Bio-Statistics	03

SEMESTER 02

BT2413	Animal Cell Culture	03
BT2423	Biochemistry	03
BT2433	Plant and Animal Breeding	03
BT2443	Food Biotechnology	03
BT2453	Techniques in Molecular Biotechnology	03
BT2463	Plant Tissue Culture and Laboratory	03

YEAR THREE

SEMESTER 01

BT3512	Omic Science	02
BT3522	Genetic Engineering	02
BT3533	Bioinformatics	03
BT3543	Biotechnology for Crop and Animal Improvement	03
BT3553	Environmental Biotechnology	03
BT3563	Plant Pest and Diseases	03

SEMESTER 02

BT3613	Industrial Biotechnology	03
BT3623	Organizational Leadership	03
BT3632	Protein Engineering	02
BT3643	Immunology	03
BT3653	Human Genome and Medical Biotechnology	03
BT3662	Introduction to Nano-Technology	02

YEAR FOUR

SEMESTER 01

BT4713	Experimental Design and Research Methodology	03
BT4722	Regulation in Gene Expression	02
BT4732	Biosafety, Regulations and Ethics	02
BT4743	Introduction to Business Management and Entrepreneurship	03
BT4752	Quality Control Management of food Products	02

ELECTIVE MODULES

BT4763	Advanced Molecular Biology	03
BT4773	Advanced Bioinformatics	03
BT4783	Bioprocessing	03

SEMESTER 02

BT4813	Forensic in Biotechnology (Optional)	03
BT4828	Research Project	08
BT4833	Internship	03