



SCHOOL OF ENGINEERING AND SCIENCES

**M.Sc. in Molecular Biology and
Biotechnology**

2023-25 Batch

M.Sc. in Molecular Biology and Biotechnology

Semester-1							
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
AEC1	University AEC	Community Engagement and Social Responsibility	0	0	0	1*	0
VAC1	University VAC	Effective Communication for Impactful Interviews	2	0	0	2	60
SEC1	School SEC	Introduction to R and Python	1	1	1	3	90
CORE	Department	Molecular Biology	2	2	0	4	120
CORE	Department	Microbial Biotechnology	2	1	0	3	90
CORE	Department	Biophysical and Biochemical Techniques	2	2	0	4	120
CORE	Department	Molecular Biology Lab	0	0	5	3	90
Core Elective	Department	Biochemistry and Metabolism (R)/Cell Biology (R)/ Bio nanotechnology (I)	2	1	0	3	90
FIC	School	Medicinal Biopharmaceutical Chemistry	2	0	1	3	90
Semester Total						25	750
Semester-2							
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
AEC2	University AEC	Community Engagement and Social Responsibility	0	0	0	1*	0
VAC2	University VAC	Entrepreneurial Mindset	2	0	0	2	60
SEC2	School SEC	Research Design and Methods	2	1	0	3	90
Core	Department	RNA Biology	2	2	0	4	120
Core	Department	Bioinformatics	2	1	0	3	90
Core	Department	Genetic Engineering	2	2	0	4	120
Core	Department	Biotechnology and Bioinformatics Lab	0	0	5	3	90
Core Elective	Department	Microbiology (R)/ Immunology (R)/ Pharmaceutical Biotechnology (I)	2	1	0	3	90
FIC	University	Design Thinking	3	0	0	3	90
Semester Total						25	750
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
RDIP	Department	Summer Internship	0	0	2	2	60

Semester-3							
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
AEC3	School AEC	Research Seminar	0	0	0	1*	
Core	Department	Plant and Animal Biotechnology	2	2	0	4	120
Core Elective	Department	Molecular Virology (R) / Programming and Computational Biology (R and I) / Immunotherapeutic (I)	2	1	0	3	90
Core Elective	Department	Genomics and Proteomics (R and I)/ Molecular Mechanisms of Diseases (R)/ Biosafety and IPR (R and I) / Bioinformatics analysis pipelines (R and I).	2	1	0	3	90
FIC	School		3	0	0	3	90
RDIP	Internship / Research / Thesis	Project 1	0	0	3	3	90
Semester Total						16	480
Semester-4							
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
RDIP	Internship / Research / Thesis	Project 2	0	0	14	14	420
Semester Total						14	420