

Courses offered in KAM School of Life Sciences (Biotechnology BIOT)

Catalogue Year: 2021-2022

Core Courses					Elective Courses / Specializations (if any)				
Core Courses	Cr.H	Remarks/ Prerequisite (if any)	Offered in Semester Fall /Spring /Summer	Remarks/ cross-listed etc.	Elective Courses	Cr.H	Pre Req	Offered in Semester	Remarks/ cross-listed etc.
BIOL 201	3		SP / FALL		BIOL 212	3			ENVR 212 depends upon offering by parent department
BIOL 203	3		SP / FALL		BIOL 323	4			ENVR 323 depends upon offering by parent department
BIOT 201	3		SP / FALL		BIOL 327	3	BIOT 313		
BIOT 202	4		SP / FALL		BIOL 328	3			
BIOT 301	3		SP / FALL		BIOL 412	3	BIOL 201		
BIOT 302	4	BIOL 313	SP / FALL		BIOL 413	3	BIOL 201 BIOT 313		
BIOL 313	4	For non-science students CHEM 160	SP / FALL		BIOL 469	4			
BIOT 313	4	BIOL 201	SP / FALL		BIOL 473	3	BIOL 315		
BIOT 314	3	BIOL 313	SP / FALL		BIOL 474	3	BIOT 313		
BIOL 315	4		SP / FALL		BIOT 211	3	BIOL 102/105		
BIOT 408	4	BIOT 313	SP / FALL		BIOT 305	3			
BIOT 411	3	BIOT 201	SP / FALL		BIOT 307	3	BIOL 201		
BIOT 412	3	BIOT 313	SP / FALL		BIOT 309	3	BIOT 313		
<p>NOTE: 45 credits of core courses</p> <p>Requirements of Major: 64 credits</p> <p>CGPA, or any other requirement...</p> <p>MCGPA should be 2.0</p> <p>For BTC degree CGPA should be 2.0.</p> <p>To apply for Research and Internship in junior year CGPA should be 2.75.</p> <p>Requirements of Minor:</p> <p>N/A</p> <p>Cross-listed Courses:</p> <p>BIOL 212, BIOL 323, BIOL 404</p> <p>Courses for Gen.Education: (any recommendation)</p> <p>BIOL 105 / BIOL 102</p> <p>Courses for non-science students: BIOL 100</p>					BIOT 315	4	BIOT 313		
					BIOT 316	3	BIOL 315		
					BIOT 409	3			
					BIOT 415	4	BIOL 315		
					BIOL 319	4			
					BIOL 403	3			
					BIOT 498/499	6		Junior year in Summers	
					<p>Note: Any 200 or above level course offered by the department will count as major elective.</p> <p>Total Credits: 19 credits for major elective</p>				

Mission Statement

To produce good quality academicians and scientists, and more importantly responsible citizens and good human beings.



Higher education opportunities:

Students with Biotechnology major can apply for a range of post graduate programs in both Pakistan and abroad. The department also offers MPhil (Biotechnology, Food safety and Quality Management, and Molecular Pathology and Genomics) and PhD (Biotechnology) programs. In addition, students can apply to postgraduate programs like biotechnology, microbiology, food science, healthcare and diagnostics, molecular biology, environmental sciences. NIBGE, CABB, NIAB (Faisalabad), CEMB, SBS, IBB, IBBt, PCSIR (Lahore) QAU (Islamabad), and ICCBS, UoK (Karachi) are among premier institutions of the country where students can apply.



Career Opportunities/Career Path:

Biotechnology major students can select academia or industry as a career path. Students, after graduating, can take up full-time employment. A career in industry will mean making a decision early on about whether your career will follow a research or a more administrative track. Jobs directly related to biotechnology in Pakistan include: clinical laboratory technician, microbiologist, diagnostics, research scientist/associate, agriculture and food industry. A degree in biotechnology is also useful in getting jobs pertaining to quality control and sales in technical companies.

Roadmap for Biotechnology Majors

Catalog year: 2021-2022

Freshmen year					
Fall 2021 (1st Semester)			Spring 2022. (2nd Semester)		
Course	Credit Hr	Remarks/Status	Course	Credit Hr	Remarks/Status
*UNIV100	3		Any Gen.Edu Course	4	
*Any Gen.Edu Course	3		Any Gen.Edu Course	3	
Any Gen.Edu Course	3		Any Gen.Edu Course	3	
Any Gen.Edu Course	3		Any Gen.Edu Course	3	
BIOT 201 (Core)	3		BIOL 203 (core)	3	
Sophomore year					
Fall...2022.... (3rd Semester)			Spring...2023.... (4th Semester)		
Any Gen.Edu Course	3		Any Gen.Edu Course	3	
Any Gen.Edu Course	3		Any Gen.Edu Course	3	
Any Gen.Edu Course	3		Any Gen.Edu Course	3	
BIOL 201 (core)	3		BIOL 313 (core)	4	
BIOT 202 (core)	4		BIOL 212 or any other M.E	3	
Junior year					
Fall.....2023 (5th Semester)			Spring...2024.... (6th Semester)		
Any Gen.Edu Course	3		BIOT 302 (core)	4	
BIOL 315 (core)	4		BIOT 313 (core)	4	
BIOT 301 (core)	3		BIOT 314 (core)	3	
BIOT 305 or any other M.E	3		BIOT 316 or any other M.E	3	
Free Elective or any other M.E	3		Free Elective or any other M.E	3	
Research and Internship					
Senior year					
Fall ...2024.... (7th Semester)			Spring ...2025....(8th Semester)		
BIOT 408 (core)	4		BIOT 415 or any other M.E	4	
BIOT 315 or any other M.E	4		BIOT 411 (Core)	3	
BIOT 412 (Core)	3		Free Elective or any other M.E	3	
BIOT 409 or any other M.E	3		Free Elective or any other M.E	3	
Total Credits:	124				