

Philadelphia University
College of Science
Department of Biotechnology and Genetic Engineering
Advisory Study Plan (2024 / 2025)

1st Year / First Semester			
Course No	Course Title	Credit Hours	Prerequisite
0116107	Communication Skills (English Language 1)	3	Pass 0116098
0116103	Communication Skills (Arabic Language)	3	Pass 0116099
0216151	General Biology (1)	3	-----
0216141	General Chemistry (1)	3	-----
0116101	National Education	3	-----
0240106	General Biology (1) Lab	1	-----
0216143	General Chemistry (1) Lab	1	-----
Total: 17 Credit Hours			

1st Year / Second Semester			
Course No	Course Title	Credit Hours	Prerequisite
0116108	Communication Skills (English Language 2)	3	0116107
0216111	Calculus (1)	3	-----
0240107	General Biology (2)	3	0216151
0240108	General Biology (2) Lab	1	0240106
-----	Elective Faculty Requirement	3	-----
-----	Elective University Requirement	3	-----
Total: 16 Credit Hours			

2nd Year / First Semester			
Course No	Course Title	Credit Hours	Prerequisite
0240216	Microbiology	3	0240107
0240217	Microbiology Lab	1	0240216
0240282	Introduction to Biotechnology	2	0240107
0216125	Introduction to Probability & Statistics	3	-----
0216241	Analytical Chemistry	3	0216141
0216242	Analytical Chemistry Lab	1	0216241
-----	Elective University Requirement	3	-----
Total: 16 Credit Hours			

2nd Year / Second Semester			
Course No	Course Title	Credit Hours	Prerequisite
0216131	General Physics (1)	3	-----
0240233	Cell Biology	3	0240107
0240231	Genetics	3	0240107
0240232	Genetics Lab	1	0240231
0216243	Organic Chemistry	3	0216141
-----	Elective Faculty Requirement	3	-----
Total: 16 Credit Hours			

3rd Year / First Semester			
Course No	Course Title	Credit Hours	Prerequisite
0240333	Molecular Genetics and Human Genome	3	0240231
0240335	Cytogenetics	1	0240231
0240336	Cytogenetics Lab	1	0240335
0240343	Biochemistry (1)	3	0216243
0240344	Biochemistry (1) Lab	1	0240343
0240386	Molecular Biology	3	0240282
0240387	Molecular Biology Lab	1	0240386
0240394	Seminar and Scientific Writing	1	Pass 90 hrs. & Dept. approval
-----	Elective University Requirement	3	-----
Total: 17 Credit Hours			

3rd Year / Second Semester			
Course No	Course Title	Credit Hours	Prerequisite
0240326	Plant Biotechnology	3	0240282
0240323	Plant Tissue Culture Lab	1	0240326
0240339	Immunology	2	0240233
0240338	Immunology Lab	1	0240339
0240390	Lab Management and Entrepreneurship in Biotechnology	2	Pass 60 Credit hrs.
0240355	Environmental Biotechnology	2	0240216
0240356	Environmental Biotechnology Lab	1	0240355
0240370	Human Cell Technology	2	0240233
-----	Elective specialization Requirement	3	-----
Total: 17 Credit Hours			

4th Year / First Semester			
Course No	Course Title	Credit Hours	Prerequisite
0240418	Microbial Biotechnology	2	0240386
0240419	Microbial Biotechnology Lab	1	0240418
0240482	Applied Molecular Biology	2	0240386
0240485	Applied Molecular Biology Lab	1	0240482
0240464	Bioinformatics Lab	2	0240386
0240470	Animal Biotechnology	2	0240386
0240472	Animal Tissue Culture	1	0240470
0240494	Field Training	3	Pass 90 hrs. & Dept. approval
-----	Elective University Requirement	3	-----
Total: 17 Credit Hours			

4th Year / Second Semester			
Course No	Course Title	Credit Hours	Prerequisite
0240442	Pharmaceutical Biotechnology	3	0240343
0115001	Military Science	3	-----
0240447	Proteins Biotechnology	3	0240343
-----	Elective specialization Requirement	3	-----
-----	Elective specialization Requirement	3	-----
0240491	Ethics in Biotechnology	1	Pass 90 Credit hrs.
Total: 16 Credit Hours			