



Study Plan for Bachelor Degree in  
Biotechnology and Genetic Engineering  
( 132 ساعة معتمدة )

First: University Requirements (Total 27 Credit Hours)

A. Compulsory University Requirements (18 Credit Hours)

Course no	Course Name	Delivery Method	Credit Hours	Pre-requisite
0115001	Military Science *	Online	3	----
0116101	National Education	Online	3	----
0116103	Communication Skills (Arabic Language)	Physical	3	0116099
0116107	Communication Skills (English Language 1)	Physical	3	0116098
0116108	Communication Skills (English Language 2)	Physical	3	0116107
0116102	Entrepreneurship, Creativity and Leadership	Online	3	----
0116109	Volunteer Community Service	Physical	0	----

\* is compulsory for Jordanian students and arbitrary for non Jordainians

B. Elective University Requirements (9 Credit Hours)

The student chooses 9 credit hours from the following table

Course no	Course Name	Delivery Method	Credit Hours	Pre-requisite
0116105	Thinking Skills	Blended	3	----
0116106	Economic Literacy	Blended	3	---
0116111	Language Skills 1 (European or Oriental)	Blended	3	----
0116112	Language Skills 2 (European or Oriental)	Blended	3	0116111
0116113	Language Skills 3 (European or Oriental)	Blended	3	0116112
0116114	Introduction to Project Management	Blended	3	---
0116143	Legal Culture	Blended	3	---
0216102	Data Analysis Skills	Blended	3	---
0216104	Digital Culture	Blended	3	---

Note:

\*\*\* Each student is expected to pass an online test evaluating his proficiency in

Arabic and English languages, in addition to assessing his computer driving skills

\*\*\* If student fail to pass these tests, he is obliged to register in 099 level course pre enrolling in more advanced courses.

1	Arabic Language	0116099
2	English Language	0116098
3	Computer Skills	0216099

6/2/2024

Second: Faculty Requirements (Total 18 Credit Hours)

A. Compulsory Faculty Requirements (12 Credit Hours)

Course no	Course Name	Delivery Method	Credit Hours	Pre-requisite
0216111	Calculus (1)	Physical	3	----
0216131	General Physics (1)	Physical	3	----
0216141	General Chemistry (1)	Physical	3	----
0216151	General Biology (1)	Physical	3	----

B. Elective Faculty Requirements (6 Credit Hours)

The student chooses 6 credit hours from the following courses

Course no	Course Name	Delivery Method	Credit Hours	Pre-requisite
0216125	Biostatistics	Online	3	0216121
0216132	General Physics (2)	Blended	3	0216131
0216142	General Chemistry (2)	Online	3	0216141
0750115	Programming C++	Blended	3	----

Third: Specialization Requirements: 87 Credit Hours

A. Compulsory Specialization Requirements: 78 Credit Hours

Course no	Course Name	Delivery Method	Credit Hours	Pre-requisite
0216121	Introduction to Probability & Statistics	Physical	3	----
0216143	General Chemistry (1) Lab	Physical	1	0216141 or co-req
0240106	General Biology (1) Lab	Physical	1	0216151 or co-req
0240107	General Biology (2)	Physical	3	0216151
0240108	General Biology (2) Lab	Physical	1	0240107 or co-req
0240216	Microbiology	Blended	3	0240107
0240217	Microbiology Lab	Physical	1	0240216 or co-req
0240231	Genetics	Physical	3	0240107 + (0216099 or co-req)
0240232	Genetics Lab	Physical	1	0240231 or co-req
0240233	Cell Biology	Blended	3	0240107
0216241	Analytical Chemistry	Physical	3	0216141
0216242	Analytical Chemistry Lab	Physical	1	0216241 or co-req
0216243	Organic Chemistry	Blended	3	0216141
0240282	Introduction to Biotechnology	Physical	2	0240107
0240326	Plant Biotechnology	Blended	3	0240282
0240323	Plant Tissue Culture Lab	Physical	1	0240326 or co-req
0240333	Molecular Genetics and Human Genome	Blended	3	0240231
0240335	Cytogenetics	Physical	1	0240231
0240336	Cytogenetics Lab	Physical	1	0240335 or co-req
0240338	Immunology Lab	Physical	1	0240339 or co-req

Course no	Course Name	Delivery Method	Credit Hours	Pre-requisite
240339	Immunology	Physical	2	0240233
0240343	Biochemistry (1)	Physical	3	0216243
0240344	Biochemistry (1) Lab	Physical	1	0240343 or co-req
0240355	Environmental Biotechnology	Physical	2	0240216
0240356	Environmental Biotechnology Lab	Physical	1	0240355 or co-req
0240370	Human Cell Technology	Physical	2	0240233
0240386	Molecular Biology	Blended	3	0240282
0240387	Molecular Biology Lab	Physical	1	0240386 or co-req
0240390	Lab Management and Entrepreneurship in Biotechnology	Online	2	Pass 60 Credit Hours
0240394	Seminar and Scientific Writing	Physical	1	Pass 90 hrs & Dept approval
0240418	Microbial Biotechnology	Physical	2	0240386
0240419	Microbial Biotechnology Lab	Physical	1	0240418 or co-req
0240442	Pharmaceutical Biotechnology	Physical	3	0240343
0240447	Protein Biotechnology	Blended	3	0240343
0240464	Bioinformatics Lab	Physical	2	0240386
0240470	Animal Biotechnology	Physical	2	0240386
0240472	Animal Tissue Culture	Physical	1	0240470 or co-req
0240482	Applied Molecular Biology	Physical	2	0240386
0240485	Applied Molecular Biology Lab	Physical	1	0240482 or co-req
0240491	Ethics in Biotechnology	Physical	1	Pass 90 Credit Hours
0240494	Field Training	Physical	3	Pass 90 hrs & Dept approval

B. Elective Specialization Requirements: 9 Credit Hours

Course no	Course Name	Delivery Method	Credit Hours	Pre-requisite
0240316	Medical Microbiology	Blended	3	0240216
0240433	Hematology	Blended	2	0240339
0240434	Hematology Lab	Blended	1	0240433 or co-req
0240392	Biosafety and Biosecurity	Blended	3	0240282
0510415	Clinical Biochemistry	Blended	3	0240343
0240456	Biotechnology in Molecular Forensics	Blended	3	0240386
0240487	Molecular Diagnostics	Blended	3	0240386
0240488	Special Topics	Blended	3	0240386
0240499	Research Project	Blended	3	Pass 90 hrs & Dept approval