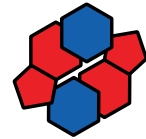




JORDAN UNIVERSITY OF
SCIENCE & TECHNOLOGY



THE HASHEMITE
KINGDOM OF JORDAN



JUST | Department of
Biotechnology and
Genetic Engineering

DIPLOMA SUPPLEMENT

1 Information identifying the holder of the qualification

1.1 Family name

XXXXXXXX

1.2 Given name

XXXXXXXX

1.3 Date and place of birth

XXXXXX, 1/1/2019

1.4 Student number

123456

2 Information identifying the qualification

2.1 Name of the qualification and title conferred

Bachelor of Biotechnology & Genetic Engineering
بكالوريوس في التقانات الحيوية والهندسة الوراثية

2.2 Main fields of study for the qualification

Biotechnology & Genetic Engineering

2.3 Name and status of the awarding institution

Jordan University of Science and Technology, Faculty of Science
& Arts, Department of Biotechnology & Genetic Engineering.
جامعة العلوم والتكنولوجيا الأردنية، كلية العلوم والآداب،
قسم التقانات الحيوية والهندسة الوراثية

2.4 Name and status of institution administering studies

Jordan University of Science and Technology, Public University

2.5 Language(s) of instruction/examination

English

This diploma supplement model was developed by the European commission, council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international "transparency" and fair academic and professional recognition of qualifications (diplomas, degrees, certificates e.t.c.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

تم تطوير نموذج ملحق الدبلوم هذا من قبل المفوضية الأوروبية ومجلس أوروبا و UNESCO/CEPES. الغرض من الملحق هو توفير بيانات مستقلة كافية لتحسين "الشفافية" الدولية والاعتراف الأكاديمي والمهني العادل للمؤهلات (الدبلومات، الدرجات، الشهادات وغيرها). صمم هذا الملحق لتوفير وصف لطبيعة ومستوى وسياق ومحتوى وحالة الدراسات التي تمت متابعتها واستكمالها بنجاح من قبل الشخص المذكور في المؤهل الأصلي الذي تم إلحاق هذا الملحق به. يجب أن يكون هذا الملحق خالي من أي أحكام قيمة، أو بيانات التكافؤ أو اقتراحات حول الاعتراف الأكاديمي. يجب تقديم المعلومات في جميع الأقسام الثمانية. في حالة عدم تقديم المعلومات، يجب أن يعطى السبب.

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3 Information on the level of the qualification

3.1 Level of the qualification

Bachelor of Science

3.2 Official length of the programme

Four academic years (8 regular semesters & optional summer semesters), (132 credit hours, 240 ECTS)

3.3 Access requirements

High school Diploma and other requirements specified by the Ministry of Higher Education

4 Information on the contents and results gained

4.1 Mode of Study

Full-time

4.2 Programme requirements

The bachelor degree of biotechnology and genetic engineering is designed as a mixture of theoretical, practical as well as research skills. The discipline combines elements from many areas such as molecular biology, genetics, microbiology, immunology and biochemistry. The aims of the program are designed to prepare graduates for a wide variety of post graduate paths such as academic, industry, or government. Preparing our graduates with outstanding communication skills, critical thinking as well as applying basic research methods are among the main objectives of the program.

Upon completion, the graduates acquired a combined knowledge in the various scientific disciplines as well as the applications of the knowledge in the various working fields at both theoretical and practical levels. Further, graduates will be able to demonstrate effective communication skills, data mining as well as a good understanding of the ethics of biotechnology and its social implications.

As for job opportunities, the major occupation areas include biotechnology and pharmaceutical firms. Their expertise in various fields of biotechnology enables graduates to work in forensic, medical and agricultural industries where they can help in disease diagnosis and as environmental consultants. Students could also work as research assistants helping principal investigators in conducting experiments in various fields of biotechnology. Finally, they could also work as sales representatives or marketing specialists; providing technical support for scientific products and help solve specific problems related to equipment applications and experimental procedures.

<u>Degree requirements</u>	<u>Credit Hours</u>	<u>ECTS</u>
University Compulsory & Electives	25	30
Faculty of Science & Arts Compulsory	19	39
Biotechnology & Genetic Engineering Compulsory	75	147
Biotechnology & Genetic Engineering Electives	13	24
Total Requirements	132	240

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4.3 Programme details and the individual grades/credits obtained

<u>Course No.</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>ECTS</u>	<u>Grade</u>
University Compulsory & Electives				
ARB101	Arabic Language	3	3	
ENG111	English Language (1)	3	4	
ENG112	English Language (2)	3	5	
HSS100	Culture and University Behavior	1	2	
NUR109	Family Health	3	4	
HSS126	Introduction to Psychology	3	4	
HSS135	Islamic Culture	3	4	
HSS231	History of Sciences in Islam	3	4	
Faculty of Science Compulsory				
MATH 101	Calculus (1)	3	6	
MATH 102A	Calculus (2) (for Biological Sciences)	3	6	
PHY101A	General Physics (1) (for Biological Sciences)	3	6	
PHY102A	General Physics (2) (for Biological Sciences)	3	6	
PHY107	Physics Laboratory	1	3	
CS115	C++ Programming Language	3	6	
MATH131	Elements of Statistics	3	6	
Biotechnology & Genetic Engineering Compulsory				
BIO101	General Biology 1	3	5	
BIO102	General Biology 2	3	5	
BIO107	General Biology Laboratory	1	2	
CHEM101	General Chemistry 1	3	5	
CHEM102	General Chemistry 2	3	5	
CHEM107	General Chemistry Laboratory.	1	3	
CHEM217	Organic Chemistry	3	5	
CHEM233	Analytical Chemistry	3	5	
CHEM234	Analytical Chemistry Laboratory	1	3	
CHEM262	Biochemistry	3	5	
CHEM266	Biochemistry Laboratory	1	3	
LM251	Basics of Hematology	3	6	
BT232	Basic Biotechnology	2	4	
BIO251	Cell Biology	3	5	
BT301	Bioinformatics	1	3	
BIO231	General Microbiology	3	5	
BIO232	General Microbiology Laboratory	1	3	
BIO333	Immunology & Serology	3	5	
BIO336	Immunology & Serology Laboratory	1	3	
BT363	Tissue Culture and Hybridoma Technology	2	4	
BIO341	Molecular Genetics	3	5	
BIO344	Molecular Genetics Laboratory	1	3	
BT399	Field Training	3	8	
BT411	Animal Biotechnology	2	4	
BT421	Plant Biotechnology	3	6	
BT431	Microbial Biotechnology	3	6	
BT441	Human Genetics	3	5	
BT451	Molecular Biology 1	3	5	
BT453	Molecular Biology Laboratory	1	3	
BT454	Molecular Biology 2	2	4	
BT456	Cytogenetics	3	6	
BT491	Seminar	1	1	
BT493	Research Project	3	7	
Biotechnology & Genetic Engineering Electives				
BT391	Scientific Writing and Presentation	1	2	
BIO441	Developmental Biology	3	5	
BT492B	Selected Topics in Biotechnology (B)	3	5	
BT492C	Selected Topics in Biotechnology (C)	2	4	
BT493	Research Project	3	7	
BT495	Laboratory Management	1	2	
BT496	Ethical Aspects of Biotechnology	1	2	

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4.4 Grading scheme and grade distribution

Letter Grade	Grade Points	Score out of 100	Letter Grade	Grade Points	Score out of 100	Letter Grade	Grade Points	Score out of 100
A+	4.2	95 - 100	B-	3	72 - 70	D	1.75	56 - 53
A	4	94 - 85	C+	2.75	69 - 67	D-	1.5	52 - 50
A-	3.75	84 - 80	C	2.5	66 - 63	F	0.5	49 - 00
B+	3.5	79 - 77	C-	2.25	62 - 60			
B	3.25	76 - 73	D+	2	59 - 57			

4.5 Overall classification of the qualification

PASS with EXCELLENT classification

Final Grade Point Average (GPA) classification system

GPA:	4.2 - 4.0	3.99 - 3.5	3.49 - 3.0	2.99 - 2.5	2.49 - 2.0
Classification:	Distinguished	Excellent	Very Good	Good	Satisfactory

5 Information on the function of the qualification

5.1 Access to further study

Post-graduate studies

5.2 Professional status

First degree

6 Additional Information

6.1 Additional Information

The degree program was accredited by ASIIN on 15 January 2019

6.2 Further Information Sources

www.just.edu.jo

7 Certification of the supplement

7.2 Date

7.3 Name and Signature

7.2 Capacity

7.2 Stamp