



Faculty of Agricultural Technology
Curriculum for the Bachelor's Degree
in Water Resources and Environmental Management
الخطة المعدلة المعتمدة بقرار مجلس العمداء رقم 2023/2022/1108 بتاريخ 2023/7/4
لمرحلة البكالوريوس وعلى بداية العام الجامعي 2024/2023

The curriculum for the B.Sc. degree in Water Resources and Environmental Management consists of (132) credit hours distributed as follows:

Course No.	Requirements	Credit Hours
1	University Requirements ▪ Compulsory ▪ Elective	24 18 6
2	Faculty Requirements	21
3	Specialization Requirements ▪ Compulsory ▪ Elective	80 71 9
4	Supportive Specialization Requirements	7
Total		132



Al-Balqa Applied University

جامعة البلقاء التطبيقية

تأسست سنة 1997

Curriculum for the Bachelor's Degree in Water Resources and Environmental Management

First: University Requirements (24 credit hours):

A. Compulsory University Requirements (18 credit hours):

Course No.	Course Title	Credit hours	Weekly Hours		Prerequisite
			Lecture	Lab.	
35001101	Military sciences	3	3	0	Passing 90 credit hours
AEL101	Applied English Language (1)	3	3	0	English 99 or passing English Level Exam
AAL101	Applied Arabic Language	3	3	0	Arabic 99 or passing Arabic Level Exam
CS101	Computer Skills and E-Learning	1	1	0	Computer Skills 99 or passing Computer Skills Level Exam
AEL102	Applied English Language (2)	3	3	0	Applied English Language (1) (AEL101)
NE101	National Education and University Behavior	3	3	0	-
IEC101	Innovation, Entrepreneurship, and Creativity	2	2	0	-
Total		18	18	0	-

B: Elective University Requirements: (6 credit hours):

The student can select **(6 credit hours)** from the University elective courses offered by Faculties other than the Faculty of Agricultural Technology.

Course No.	Course Title	Credit hours
36001101	Communication skills	3
36002102	Introduction to psychology	3
36003103	Jordanian Society	3
36004104	Sports and health for all	3
36005105	Islamic culture	3
36009111	Economic concepts	3
36006106	Contemporary Administrative Concepts and Skills	3
36012109	The Orthodox Caliphs	3
36009114	Jerusalem (Palestinian issue)	3
36009112	Law, Media and Society	3
36009109	Islam and Life	3
36009115	Numerical Society	3
Total		36

Second: Faculty Requirements: (21 credit hours).

Course No.	Course Title	Credit hours	Weekly Hours		Prerequisite
			Lecture	Lab.	
30202101	Calculus 1	3	3	0	-
30206101	General Chemistry 1	3	3	0	-
30206102	General Chemistry Lab 1	1	0	3	30206101*
30206103	General Chemistry 2	3	3	0	30206102
30206104	General Chemistry Lab 2	1	0	3	30206103*
30203101	General Biology 1	3	3	0	-
30203111	General Biology Lab	1	0	3	30203101*
30201105	General Physics for Agricultural Students	3	3	0	-
30403211	Principles of Plant Production	3	3	0	30203101
Total		21	18	9	

*The prerequisite can be registered concurrently

Third: Specialization Requirements: (80 credit hours):**A: Compulsory Specialization Requirements: (71 credit hours)**

Course No.	Course Title	Credit hours	Weekly Hours		Prerequisite
			Lecture	Lab.	

WRE221	Applied Environmental Geology	3	3	0	-
WRE211	Hydraulics	3	2	3	30202101 30201105
WRE222	Meteorology and Air Pollution	3	3	0	WRE221
WRE212	Principles of Irrigation and Drainage	3	3	0	WRE211
WRE213	Drinking water quality	3	2	3	30206103 WRE221
WRE223	Environmental Soil Physics	3	2	3	WRE221
WRE314	Surface Water Hydrology	3	3	0	WRE221 WRE213
WRE316	Design of smart irrigation system	3	3	0	WRE211 WRE212
WRE326	Wastewater Treatment and Reuse	3	2	3	30206104 WRE213
WRE331	Environmental Impact Assessment	3	3	0	WRE222 WRE314
WRE315	Groundwater Hydrology	3	3	0	WRE314
WRE325	Environmental Soil Chemistry	3	3	0	WRE221 WRE331
WRE324	Climate change and sustainable development	3	3	0	WRE314 WRE331
WRE327	Soil Fertility and Fertilizers	3	2	3	WRE325
WRE341	Environmental remote sensing and GIS	3	3	0	WRE221
WRE342	Environmental remote sensing and GIS Lab	1	0	3	WRE341
WRE433	Water harvesting systems	3	3	0	WRE314 WRE341
WRE443	Environmental Monitoring and Early Warning Systems	3	3	0	WRE324
WRE417	Integrated Water Resources Management	3	3	0	WRE315 WRE324
WRE432	Integrated Solid Waste Management	3	3	0	WRE324
WRE434	Water and Environmental Economics	3	3	0	WRE324 WRE433
WRE401	Field Training in Water Resources and Environmental Management	6	0	0	After successfully passing 100 credit hours
WRE402	Seminar in Water Resources and Environmental Management	1	1	0	After successfully passing 100 credit hours

WRE403	Graduation Project in Water Resources and Environmental Management	3	0	0	After successfully passing 100 credit hours
Total		71	56	18	

B: Elective Specialization Requirements: **9 credit hours** to be selected from the following list:

Course No.	Course Title	Credit hours	Weekly Hours		Prerequisite
			Lecture	Lab.	
WRE228	Principles of Soils and Irrigation	3	3	0	-
WRE335	Integrated Management of Ecosystems	3	3	0	WRE331
WRE344	Environmental Modeling	3	2	3	WRE222 WRE223
OAT459	Hydroponics	3	2	3	30203101 م م ب 211
ABT426	Environmental biotechnology	3	3	0	م م ب 331
Total		15	13	6	

Fourth: Supportive Specialization Requirements: (7 credit hours)

Course No.	Course Title	Credit hours	Weekly Hours		Prerequisite
			Lecture	Lab.	
30403473	Statistics and Design of Agricultural Experiments	3	3	0	30202101
a30601222	Project Management (College of Business)	3	3	0	-
CIE0215	Surveying Lab	1	0	3	-
Total		7	6	3	

*The prerequisite can be registered concurrently