# Al-Qasim Green University

جامعة القاسم الخضراء كلية علوم البيئة-قسم التلوث البيئي



First Cycle — Bachelor's degree (B.Sc.) — Environmental pollution بكالوريوس علوم البيئة — التلوث البيئي



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# 1. Mission & Vision Statement

### Vision Statement

The Environmental pollution Department is dedicated to generate and disseminate knowledge for the sustainable use of natural and managed environment through the theoretical and practical educational fields. The college seeks to attract students who are interested in environmental specialization to contribute in serving of society effectively through the protection and improvement of the environment in Iraq.

#### Mission Statement

Contributing to the scientific and environmental pollution knowledge and practical application that needed to keep pace with the accelerating challenges in the Iraqi environment through a number of specialized staff in the field of environmental, environmental technologies, environmental pollution and sustainable development.

# 2. **Program Specification**

Programme code:	BSc-Environ pollution	ECTS	240
Duration:	4 levels, 8 Semesters	Method of Attendance:	Full Time

The Department of Environmental pollution is one of the main scientific departments in the College of Environmental Sciences, which aims to develop the scope of environmental pollution education and to raise awareness in the field of environment.

A diverse range of environment - community health interaction issues that concern individuals are carefully addressed through educational courses. The environmental pollution department offers in depth elective courses, which enable students to develop competence in a wide range of environmental pollution skills.

Graduates may focus on environment, pollution, treatment of pollution toxicology, hazardous factors including chemical, biological and radiological contaminants. The Department of Environmental ppolluin aims to contribute significantly in efforts to protect ecosystem.

The teaching objective of this department is to providing skills that qualify students to work in many fields.

Level 1 exposes students to the fundamentals of Environmental pollution and Ecology, suitable for progression to all programmes within the Environmental pollution programme group. Programme-specific core topics are covered at Level 2 preparing for research-led subject specialist modules at Levels 3 and 4.

A Leeds Environmental pollution graduate is therefore trained to appreciate how research informs teaching, according to the University, College and Department Mission statements.

The research ethos is developed and fostered from the start via practicals, which are either embedded in lecture modules or taught in dedicated practical modules, research seminars and practical training.

Studied modules are held at Levels 1 and 2, providing continuity and progressive guidance. Level 1 and 2 tutorials include a number of workshops to teach skills through structured and unstructured student workload, e.g. library use and presentation skills, followed by assessed exercises, e.g. essays and talks, as opportunities to practice these skills in a subject-specific context.

At Level 4 all students carry out an independent research project, which may be a high credit library or data analysis project, or a high credit field or laboratory based project.

# 3. **Program Goals**

- 1. Provide education for students at all levels, involving them in the research process to foster their education, preparing them to diagnosis of environmental pollution problems and work to find appropriate solutions.
- 2. Conducting research that contributes to describe and identify the environmental pollution problems and challenges.
- 3. Establishing of cultural and academic relations with environmental pllution organizations and centers, locally and internationally.
- 4. Offering an array of training courses for the development of analytical skills, focusing indepth understanding of environmental hpollution problems.
- 5. Provide training courses designed to increase the environmental pollution awareness at the private and public.

# 4. **Student Learning Outcomes**

The Department of Environmental pollution is one of the main scientific departments in the College of Environmental Sciences, which aims to develop the scope of environmental pollution education and to raise awareness in the field of pollution. A diverse range of environment - community health interaction issues that concern individuals are carefully addressed through educational courses. The environmental pollution department offers in depth elective courses, which enable students to develop competence in a wide range of environmental pollution skills. Graduates may focus on environment, environmental pollution toxicology, treatment of pollution, ecosystem health, hazardous factors including chemical, biological and radiological contaminants..

The Department of Environmental pollutin aims to contribute significantly in efforts to protect ecosystem health. The teaching objective of this department is to providing skills that qualify students to work in many fields.

The graduate of the department of environmental pollution acquires the environmental scientific knowledge and the skills needed to work as an environmental pollution researcher in different fields. The degree programs equip the graduate with an ability to monitor and enforce standards of environmental pollution and public health, including food hygiene, safety at work, housing and noise and pollution control, preventing environmental health conditions damaging to health and promoting good environmental practices. These scientific and technical capabilities will meet the national need of the academic and applied labor market in the private and public sectors. The graduate will be able to carry out independent scientific research on various aspects of environmental issues as well as postgraduate degrees (master's and doctorate) in environmental disciplines.

#### Outcome 1

Identification of Complex Relationships

Graduates will be able to illustrate the structure and function of environmental pollution and health of ecosystem components and explain how they interact in all organisms life.

#### **Outcome 2**

Oral and Written Communication

Graduates will be able to formally communicate the results of environmental pollution investigations using both oral and written communication skills.

### **Outcome 3**

Laboratory and Field Studies

Graduates will be able to perform laboratory experiments and field studies, by using scientific equipment while observing appropriate environmental pollution safety protocols.

### **Outcome 4**

Scientific Knowledge

Graduates will be able to demonstrate a balanced concept of how scientific knowledge develops, including the historical development of foundational theories and laws and the nature of environmental pllution science.

#### Outcome 5

Data Analyses

Graduates will be able to demonstrate scientific quantitative skills, such as the ability to conduct simple data analyses on environmental pollution sector.

#### **Outcome 6**

Critical Thinking

Graduates will be able to use critical-thinking and problem-solving skills to develop a research project and/or paper.

### 5. Academic Staff

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# 6. Credits, Grading and GPA

### **Credits**

Al-Qasim Green University/ Environmental Sciences College/ Environmental pollution Department is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

### **Grading**

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

	GRADING SCHEME مخطط الدر جات							
Group	Grade	التقدير	Marks (%)	Definition				
	A - Excellent	امتياز	90 – 100	Outstanding Performance				
Success	B - Very Good	جيد جدا	80 – 89	Above average with some errors				
Group	C – Good	ختخ	70 – 79	Sound work with notable errors				
(50 - 100)	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings				
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria				
Fail Group	FX – Fail	راسب - قيد المعالجة	(45-49)	More work required but credit awarded				
(0 – 49)	F – Fail	راسب	(0-44)	Considerable amount of work required				
Note:								

Number Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

### Calculation of the Cumulative Grade Point Average (CGPA)

1. The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

# 7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
QEPE2601	General Biology	79	71	6.00	В	Non
QEPE2602	Analytical Chemistry	79	71	6.00	В	Non
QEPE3603	Fundamental of Ecology	79	71	6.00	C	Non
QEPE1304	Human Rights & Democracy	33	42	3.00	S	Non
QEPE1305	Arabic Language	33	42	3.00	S	Non
QEPE2606	Physics	79	71	6.00	В	Non

Semester 2 | 30 ECTS | 1 ECTS = 25 hrs

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Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
QEPE3607	Biostatics	79	71	6.00	С	Non
QEPE2608	Organic Chemistry	79	71	6.00	В	Non
QEPE1609	Computer Science 1	79	71	6.00	В	Non
QEPE2610	English Language	33	42	3.00	S	Non
QEPE1310	Professional Ethics	33	42	3.00	С	Non
QEPE3611	Environmental pollution Science	79	71	6.00	С	Non

Semester 3 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
QEPE3612	Microbiology	79	71	6.00	С	Non
QEPE2613	Phytoplankton	79	71	6.00	В	Non
QEPE2414	Desertification & itsTreatments	49	51	4.00	С	Non
QEPE3315	Environmental Legislation and Laws	34	41	3.00	С	Non
QEPE3616	Atmospheric Chemistry	79	71	6.00	В	Non
QEPE3517	Computer Science 2	79	46	5.00	С	Non

Semester 4 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
QEPE3518	Meteorology	79	46	5.00	С	Non
QEPE3519	Microbial Pollution	79	46	5.00	С	Non
QEPE3520	Environmental Chemistry	79	46	5.00	С	Non
QEPE3421	Epidemiology	48	52	4.00	С	Non
QEPE3522	Biochemistry	79	46	5.00	С	Non
QEPE3623	Environmental Biotechnologies	79	71	6.00	В	Non

Semester 5 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
QEPE3624	Air Pollution	79	71	6.00	С	Non
QEPE3525	Pathological Analyses	79	46	5.00	С	Non
QEPE3526	Environmental Toxins	79	46	5.00	С	Non
QEPE3527	Remote Sensing	79	46	5.00	С	Non
QEPE3528	Bioremidiation	79	46	5.00	С	Non
QEHE3429	Renewable Energy	48	52	4.00	В	Non

Semester 6 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
QEPE3630	Water Pollution	79	71	6.00	С	Non
QEPE3531	Ecogenetics	79	46	5.00	С	Non
QEPE3532	Soil Pollution	79	46	5.00	С	Non
QPHE3533	Zooplanktons	79	46	5.00	С	Non
QEPE3434	Environmental Awareness	33	67	4.00	С	Non
QEPE3535	Environmental Analytics	79	46	5.00	В	Non

**Semester 7** | **30 ECTS** | **1 ECTS = 25 hrs** 

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
QEPE3636	Environmental Treatments	93	57	6.00	С	Non
QEPE3637	Bioavailability of pollutants	78	72	6.00	С	Non
QEPE3638	Radioactive Pollution	78	72	6.00	С	Non
QEPE3439	Safety and Environmental Security	63	37	4.00	С	Non
QEPE3440	Graduate Research Project	48	52	4.00	С	Non
QEPE3441	ELECTIVE	63	37	4.00	С	Non
QEPE3441	Noise Pollution				E	
QEPE3441	Waste recycle				Е	

Semester 8 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
QEPE3542	Environmental Forensics	49	76	5.00	С	Non
QEPE3443	Hazardous Waste	48	52	4.00	В	Non
QEPE3444	Environmental Impact Assessment	49	51	4.00	С	Non
QEPE3745	Environmental Biomarkers	78	97	7.00	С	Non
QEPE3646	Graduate Research Project	78	72	6.00	В	Non
QEPE3447	Climate Changes	48	52	4.00	С	Non
	Bioenergy				Е	
	Sustainable & Development				Е	

# 8. Contact

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