Ministry of Higher Education and Scientific Research
Al-Qasim Green University/ College of Environmental Sciences
Environmental pollution Department

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Toxicology**			**Module Delivery**	
Module Type	**core**			☐ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code	QEPE3526				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	UGII		**Semester of Delivery**	5	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	May Hameed Mohammad		**e-mail**	Mayhameed85@enviro.uoqasim.edu.iq	
Module Leader's Acad. Title	Assistant Professor		**Module Leader's Qualification**	master	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	1/9/2025		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1- explain the history of toxicology 2- Identifying the sources and types of toxins 3- Defining the general Methods of entry of toxins into the body 4- Defining the Toxic status of Industrial poisoning 5- Explain how can pesticide work as poison 6- identify the important natural materials that found in environment and work as toxic compounds 7- identify the important materials that can found in domestic place and act as poison 8- Defining the specific species of plant and animals that contributed to human poisoning from ancient of time 9- Explaining the effect of CO on human life 10- defining the drugs and their effect on many levels 11- explain how medicine doses can be toxic to organisms 12- Introduction to the type and effect of alcohol 13- explain the mechanism of toxic materials on blood and digestive system 14- explain the mechanism of toxic materials on respiratory and nervous system 15- Introduction to how treated cases of poison
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. The student must have a basic understanding of the history of toxicology. 2. The student must be familiar with the sources and types of toxins. 3. The student must be able to list the important routes of entry into the body. 4. The student must be fully aware of the most important toxins from various industrial sources. 5. The student explains how pesticides can cause toxic effects. 6. The student must identify natural toxins found in the environment. 7. The student must know the methods and substances that can be toxic in the home environment. 8. The student must identify animals and plants that can be toxic in the environment. 9. The student must identify the routes, sources, and effects of exposure to carbon monoxide. 10. The student must avoid unknown substances and herbs. 11. The student must distinguish between a toxic dose and a healthy dose. 12. The student explains the effects of alcohol overdose and the dangers it can cause. 13. The student must understand how a toxic substance can affect the blood and its components, as well as the digestive system and its parts. 14. The student must understand how a toxic substance can affect the respiratory and nervous systems. 15. The student must generally identify how to treat some of the poisonings that can occur.
Indicative Contents المحتويات الإرشادية	**The Core Curriculum topics may be covered by asynchronous self-directed learning, synchronous virtual learning, face to face tuition, or a blend of these three learning modalities.** The Core Curriculum for Module 1: 1. History of Toxicology 2. Sources and types of toxins 3. Methods of entry of toxins into the body 4. Toxic status of Industrial poisoning

5. Pesticide poisoning
6. Natural toxins in the environment
7. Domestic poisoning
8. Poisonous animals and plants
9. Carbon monoxide poisoning
10. Drug poisoning
11. medicine poisoning
12. Alcohol poisoning
13. Mechanism of the effect of the toxic substance on the blood and digestive system
14. Mechanism of the effect of the toxic substance on the respiratory and nervous systems
15. Treatment of poisoning cases

The Core Curriculum for Module 2:

1. The student writes an essay on the history of environmental toxicology.
2. The student explains, through a poster, the most important sources and types of toxins.
3. The student creates a poster illustrating the most important ways toxins enter the body.
4. The student writes a report on cases of poisoning in industrial settings.
5. The student discusses the distribution of pesticides among living organisms and their effects.
6. The student writes a report on the most common natural toxins found in the environment.
7. The student gives a presentation on the most important toxins that can be found in the home environment.
8. The student gives a visual presentation of the most important toxic animals and plants in their environment.
9. The student explains, through a poster, carbon monoxide poisoning.
10. The student submits an essay on drugs, their types, and their dangers.
11. The student writes an essay about drug poisoning.
12. The student presents a presentation on the effects of alcohol poisoning.
13. The student presents a poster illustrating the most important components of blood and the most important parts of the digestive system affected by toxins.
14. The student presents a poster illustrating the most important parts of the respiratory and nervous systems affected by toxins.
15. The student writes a presentation on how to treat some cases of poisoning.

The Core Curriculum for Module 3:

1. Remind that toxicology is one of the oldest sciences in human history.
2. Identify the most important sources of toxins and their types.
3. Find ways to control and prevent toxins from entering the body.
4. Remind the student of the potential dangers emanating from industrial environments of all kinds.
5. Find ways to determine the optimal use of pesticides to avoid their risks.
6. Explore the environment and identify natural sources of toxins.
7. Monitor sources and cases of poisoning that may originate in the home environment.
8. Identify the most important species of animals and plants that are naturally toxic.
9. Find ways to treat or control carbon monoxide release.
10. Find ways to limit drugs and remind students of their dangers.
11. Treat drug poisoning and remind students of the dangers of improper use.
12. Warning against excessive alcohol consumption.
13. Find ways to protect the blood and essential organs from the effects of toxins.
14. Protect the nervous and respiratory systems from exposure to toxins.
15. Remind students of the most important methods. Common in treating poisoning cases

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Enabling students to research and investigate the types of toxic substances and their natural sources, as well as to identify dangerous plant and animal species that secrete toxins, and how to mitigate this risk as much as possible. Furthermore, it encourages students to find ways to treat or eliminate the effects of toxic substances present in the environment, or at least use them to treat certain diseases instead of synthetic compounds. This is to preserve natural environments and protect living organisms on Earth. Furthermore, it helps students understand methods for diagnosing cases of poisoning in living organisms in the environment, thus identifying the most appropriate methods for treating them or avoiding them in the future.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	46	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2/8	10% (10)	3, 5, 6,8,9,10,11,13	LO #1- #14
	Assignments	2/8	10% (10)	3, 5, 6,8,9,10,11,13	LO #1 - #14
	Projects / Lab.	1/2	10% (10)	8, 13	LO #1 - #14
	Report	6/2	10% (10)	3,4, 6, 8, 10,13	LO #1- #13
Summative assessment	**Midterm Exam**	4hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

COURSE SCHEDULE:-

Week	hours	Topics Covered	Learning Outcomes
1-2	6	History of Toxicology, Sources and types of toxins	Known the history of toxic science and the ancient sources of toxin and its types
3-4	6	Methods of entry of toxins into the body, toxic status of Industrial poisoning	Discission the methods that used by toxic materials to enter the body and shown the important toxic material from industries
5-6	6	Pesticide poisoning, Natural toxins in the environment	Explain how pesticide can be poison and define the important toxin that can be find naturally
7-8	6	Domestic poisoning, Poisonous animals and plants	Known the toxic materials that found in domestic places and shown the important organisms that define as dangerous to human in environment
9-10	6	Carbon monoxide poisoning, Drug poisoning	Discussion the source and effect of CO on human life and effect of unsuitable and over doses drugs on human
11-12	6	medicine poisoning, Alcohol poisoning	Shown the effect medicine doses and pointed to the type, effect and the dangerous of over doses of alcohol
13-14	6	Mechanism of the effect of the toxic substance on the blood and digestive system, Mechanism of the effect of the toxic substance on the respiratory and nervous systems	Showed the important mechanism of toxin to effect of digestive system, respiratory system and nervous systems
15	6	Treatment of poisoning cases	Identify the most important ways to treat cases of poisoning
Final Exam			

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	History of Toxicology
Week 2	Sources and types of toxins
Week 3	Methods of entry of toxins into the body
Week 4	Toxic status of Industrial poisoning
Week 5	Pesticide poisoning
Week 6	Natural toxins in the environment
Week 7	Domestic poisoning
Week 8	Poisonous animals and plants
Week 9	Carbon monoxide poisoning
Week 10	Drug poisoning
Week 11	medicine poisoning
Week 12	Alcohol poisoning
Week 13	Mechanism of the effect of the toxic substance on the blood and digestive system
Week 14	Mechanism of the effect of the toxic substance on the respiratory and nervous systems
Week 15	Treatment of poisoning cases
Week 16	

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Laboratory guide and introduction
Week 2	Toxicity and types of toxicity
Week 3	Dose and types of toxins
Week 4	Dose-toxicity relationship: (response of organisms to toxins)
Week 5	Toxicity of chemical pesticides
Week 6	Poisonous plants: (tobacco plant: nicotine)
Week 7	Chemical toxins: extract of plant seeds
Week 8	Plant toxins: castor bean
Week 9	Chemical toxins: heavy metals
Week 10	Effect of some toxic substances on seed germination

Week 11	Chemical toxins: hydrocarbons
Week 12	Plant toxins: algal toxins
Week 13	Fungal toxins
Week 14	Domestic toxins: detergents
Week 15	Agricultural toxins: chemical fertilizers

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**القماز , سمير غازي. (2003). علم السموم. الطبعة الاولى , مكتبة المجتمع العربي للنشر ودار صفاء للنشر والتوزيع , عمان, الاردن, ص 269.** Hodgson, E. (2004). A textbook of modern toxicology. Third edition, Department of Environmental and Biochemical Toxicology North Carolina State University, Published by John Wiley & Sons, Inc., Hoboken, New Jersey Published simultaneously in Canada	yes
Recommended Texts	Manahan, S. E. (2002). *Toxicological chemistry and biochemistry*. CRC Press.	No
Websites	https://maken.wikiwijs.nl/120137/1__Introduction#!page-4124228	

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

Note: Marks 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.

توزيع الساعات المجدولة و الغير مجدولة (SWL= SSWL +USWL)

Activity types	Structured SWL	Un structured SWL	No. of weeks	Time Factor	SWL (hr)
Class	Class Lecturers		15	2	30
Lab.			15	2	30
Tutorial					
Self Study		Self Study			
Quizzes		Preparation for the Quizzes	8	2	16
discussions during lectures					
Projects / Lab.	Project Work		1	3	3
		Preparation for the Project			
Seminar	Presenting a Seminar		15	1	15
		Preparation for the Project			
Assignments, Home Work		Preparation for the H.W.	7	2	14
Report		Preparation for the Report	5	2	10
Midterm Exam (10%)		Preparation for the Exam.	1	4	4
	Evaluation				
Final Exam (50%)		Preparation for the Exam.	1	3	3
	Evaluation				
		Total SWL (hr/ Semester)			125
		ECTS			5

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Environmental Sciences

Environmental Pollution Department

"COURSE PORTFOLIO"

Module Information **معلومات المادة الدراسية**					
Module Title	**اخلاقيات مهنة**			**Module Delivery**	
Module Type	**S**			☐ **Theory** ☒ **Lecture** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**QEPE3610**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level	**1**	**Semester**	**1**		
Department	**Environmental Health**	**College**	**Environmental Sciences**		
Module Leader	**سليمة هادي موسى**	**E-mail**	**Salema@environ.uoqasim.edu.iq**		
Module Leader's Acad. Title	**استاذ مساعد**	**Module Leader's Qualification**	**ماجستير**		
Module Tutor		**e-mail**			
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**		
Scientific Committee Approval Date	**06/06/2023**	**Version Number**	**1.0**		

Student Workload (SWL): Structured SWL (h/w) (Two contact hours of lectures + Two hours of seminars) + Unstructured SWL (h/w) .

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	42	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Relation with other Modules:-

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Environmental Sciences

Environmental Pollution Department

Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**			
Prerequisite module	**None**	**Semester**	
Co-requisites module	**None**	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

COURSE DESCRIPTION: وصف المنهاج	يركز هذا المقرر على المبادئ الاساسية لمفهوم اخلاقيات المهنة
Module Aims أهداف المادة الدراسية	The goal of this course is to develop basic skills and knowledge to raise issues associated with the Analytical Chemistry
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- ان يتمكن الطالب من تعريف المفاهيم الخاصة بحقوق الانسان والديمقراطية 2- ان يتمكن الطالب من وصف المبادئ الخاصة بالديمقراطية وحقوق الانسان 3- أن يكتسب الطالب المعلومات والدراية الكافية حول الممارسات الديمقراطية 4- ان يتمكن الطالب من معرفة اهم القواعد المتعلقة بعمل الانظمة النيابية 5- ان يتمكن الطالب من التعرف على اهم الاساليب الديمقراطية الحديثة في الحكم
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1- د .ماهر صالح علاوي ،رعد ناجي الجدة، رياض عزيز هادي واخرون، حقوق الانسان والطفل والديمقراطية ،جامعة تكريت ،2013،ط2.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	د .حامد الشباوي	No
Recommended Texts		No
Websites		

Grading Scheme

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Environmental Sciences

Environmental Pollution Department

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

Note: Marks 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.

COURSE SCHEDULE:-

Week	hours	Topics Covered	Learning Outcomes
1-2	2	مفهوم اخلاقيات المهنة	ان يتعلم الطالب على المفاهيم المذكورة بصورة عامة
3-4	2	اهمية اخلاقيات المهنة في العمل	ان يعرف الطالب بداية ظهور هذا المفهوم وكيف تطور حتى الوقت الحاضر
5-6	2	تطبيقات اخلاقيات المهنة	يتعرف الطالب على مدى وجود فكرة الاخلاقيات في فترة العصور الوسطى
7-8	2	اخلاقيات المهنة في العمل	يتعلم الطالب معنى الاخلاقيات ومبادئها وخصائصها ومميزاتها
9-10	2	جوانب من اهمية اخلاقيات المهنة	يكتسب الطالب الدراية الكاملة حول انواع الاخلاقيات

			المتعارف عليها في الانظمة السياسية
11-12	2	اهداف اخلاقيات المهنة	يتمكن الطالب من معرفة اهمية اخلاقيات المهنة وما الهدف من تعلمها وماهي اهم خصائصها.
13-14	2	مسؤولية اخلاقيات المهنة	يتمكن الطالب من معرفة مصادر اخلاقيات المهنة التي يتم الرجوع اليها ،سواء على المستوى المحلي ام الدولي والضمانات التي يجب توافرها من اجل حماية حقوق الافراد على الصعيدين الداخلي والدولي
14-15	2	الاخلاق والشخصية	يتمكن الطالب من معرفة الدور الذي يمكن ان تلعبه المنظمات الدولية في اخلاقيات المهنة
Final Exam			

Module Evaluation:-

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment (40%)	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments & H.W.	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	10% (10)	Continuous	
	Seminar	1	10% (10)	14	
	Field Visits Report				
	Discussions During Lectures	10		Continuous	ALL

Summative assessment	**Midterm Exam (10%)**	1hr	10% (10)	8	LO # 1-15
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**تشريعات بيئية**			**Module Delivery**	
Module Type	**Core**			☒**Theory** ☒**Lecture** ☒**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	**UoB12345**				
ECTS Credits					
SWL (hr/sem)					
Module Level	1		**Semester of Delivery**	1	
Administering Department	التلوث البيئي		**College**	كلية علوم البيئة	
Module Leader	سليمة هادي موسى		**e-mail**	SALEMA@environ.uoqasim.edu.iq	
Module Leader's Acad. Title	استاذ مساعد		**Module Leader's Qualification**	دكتوراه	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date			**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	1. التعرف على الانظمة والقوانين والتشريعات التي تهدف حماية البيئة من التلوث 2. التعرف على ضمانات والداستير القانونية في مجال حماية البيئة 3. التاكيد على تشريعات القانونية والانظمة
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**مخرجات المادة التعليمية للتشريعات البيئية** هي النتائج التعليمية المتوقعة التي يجب أن يحققها الطالب أو المتدرب بعد إكمال دراسة هذه المادة. تُصاغ عادة بشكل واضح ومحدد، وتعكس ما سيكون المتعلم قادرًا على **معرفته** و**فعله** و**تقديره** بعد الانتهاء من المادة. فيما يلي مثال على **مخرجات تعلم** (Learning Outcomes)لمادة "التشريعات البيئية:" --- المخرجات المعرفية:**(Cognitive Outcomes)** 1. أن يعرّف المفاهيم الأساسية المتعلقة بالتشريعات والأنظمة البيئية. 2. أن يميز بين أنواع القوانين البيئية (الوطنية، الإقليمية، الدولية.) 3. أن يشرح الإطار القانوني والمؤسسي لحماية البيئة في بلده أو في سياق دولي. 4. أن يحلل العلاقة بين القوانين البيئية ومبادئ التنمية المستدامة. --- المخرجات المهارية:**(Skills Outcomes)** 1. أن يفسّر مواد قانون بيئي معين ويطبّقها على حالات واقعية (مثل التلوث الصناعي أو حماية التنوع البيولوجي.) 2. أن يوظف مهارات البحث القانوني في تحليل وثائق أو تشريعات بيئية. 3. أن يصيغ مقترحات لتعديل أو تطوير تشريعات بيئية قائمة. 4. أن يُعدّ تقارير أو دراسات قانونية تتعلق بانتهاكات بيئية. ---
Indicative Contents المحتويات الإرشادية	المحتويات الإرشادية في التشريعات البيئية هي تلك المواد أو البنود التي لا تفرض التزامات قانونية صارمة، بل تهدف إلى توجيه وتحفيز الأفراد والمؤسسات نحو السلوك البيئي السليم، وتوفير المبادئ العامة أو التوصيات التي يُستحسن اتباعها لتحقيق أهداف حماية البيئة. **أمثلة على المحتويات الإرشادية في التشريعات البيئية:** 1. **مبادئ توجيهية عامة** ○ مثل مبدأ "الاحتراز"، ومبدأ "الملوّث يدفع"، ومبدأ "الاستدامة." ○ هذه المبادئ لا تكون بالضرورة إلزامية، لكنها تشكل الأساس في تفسير القوانين واتخاذ القرارات البيئية. 2. **التوصيات الفنية أو الإدارية** ○ نصوص تشجع على استخدام تقنيات صديقة للبيئة أو إدارة الموارد بكفاءة. ○ مثال: "ينبغي على المنشآت الصناعية اعتماد أفضل الممارسات المتاحة لتقليل الانبعاثات."

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	**استراتيجيات تدريس مادة التشريعات البيئية** هي الطرق والأساليب التعليمية التي يستخدمها المعلم أو المحاضر لتوصيل المفاهيم القانونية والبيئية بفعالية للمتعلمين، مع تعزيز الفهم، التحليل، والتطبيق الواقعي للقوانين البيئية.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**200**		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction - Difference between Circuit Theory and Field Theory
Week 2	Basics of Network Elements
Week 3	Resistance and Resistivity, Ohm's Law and Inductance, Capacitance
Week 4	Review of Kirchhoff's Laws, Circuit Analysis - Nodal and Mesh
Week 5	Linearity and Superposition, Source Transformations, Thévenin and Norton Equivalents
Week 6	Review of Inductor and Capacitor as Circuit Elements, Source-free RL and RC Circuits, Transient Response
Week 7	Mid-term Exam + Unit-Step Forcing, Forced Response, the RLC Circuit
Week 8	Sinusoidal Forcing, Complex Forcing, Phasors, and Complex Impedance, Sinusoidal Steady State Response
Week 9	Nodal and Mesh Revisited, Average Power, RMS, Introduction to Polyphase Circuits
Week 10	Mutual Inductance, Linear and Ideal Transformers, Circuits with Mutual Inductance
Week 11	Frequency Response of Series/Parallel Resonances, High-Q Circuits
Week 12	Complex Frequency, s-Plane, Poles and Zeros, Response Function, Bode Plots
Week 13	Two Port Networks, Admittance, Impedance, Hybrid, and Transmittance Parameters
Week 14	Two Port Networks, Admittance, Impedance, Hybrid, and Transmittance Parameters
Week 15	Two Port Networks, Admittance, Impedance, Hybrid, and Transmittance Parameters
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to Agilent VEE and PSPICE
Week 2	Lab 2: Thévenin's / Norton's Theorem and Kirchhoff's Laws
Week 3	Lab 3: First-Order Transient Responses
Week 4	Lab 4: Second-Order Transient Responses
Week 5	Lab 5: Frequency Response of RC Circuits
Week 6	Lab 6: Frequency Response of RLC Circuits
Week 7	Lab 7: Filters

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**

Required Texts	Fundamentals of Electric Circuits, C.K. Alexander and M.N.O Sadiku, McGraw-Hill Education	Yes
Recommended Texts	DC Electrical Circuit Analysis: A Practical Approach Copyright Year: 2020, dissidents.	No
Websites	https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering	

Grading Scheme
مخطط الدرجات

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

Note: Marks 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.

Ministry of Higher Education and Scientific Research
Al-Qasim Green University/ College of Environmental Sciences
Environmental pollution Department

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Toxicology**			**Module Delivery**	
Module Type	**core**			☐ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code	QEPE3526				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	UGII		**Semester of Delivery**	5	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	May Hameed Mohammad		**e-mail**	Mayhameed85@enviro.uoqasim.edu.iq	
Module Leader's Acad. Title	Assistant Professor		**Module Leader's Qualification**	master	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	1/9/2025		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1- explain the history of toxicology 2- Identifying the sources and types of toxins 3- Defining the general Methods of entry of toxins into the body 4- Defining the Toxic status of Industrial poisoning 5- Explain how can pesticide work as poison 6- identify the important natural materials that found in environment and work as toxic compounds 7- identify the important materials that can found in domestic place and act as poison 8- Defining the specific species of plant and animals that contributed to human poisoning from ancient of time 9- Explaining the effect of CO on human life 10- defining the drugs and their effect on many levels 11- explain how medicine doses can be toxic to organisms 12- Introduction to the type and effect of alcohol 13- explain the mechanism of toxic materials on blood and digestive system 14- explain the mechanism of toxic materials on respiratory and nervous system 15- Introduction to how treated cases of poison
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. The student must have a basic understanding of the history of toxicology. 2. The student must be familiar with the sources and types of toxins. 3. The student must be able to list the important routes of entry into the body. 4. The student must be fully aware of the most important toxins from various industrial sources. 5. The student explains how pesticides can cause toxic effects. 6. The student must identify natural toxins found in the environment. 7. The student must know the methods and substances that can be toxic in the home environment. 8. The student must identify animals and plants that can be toxic in the environment. 9. The student must identify the routes, sources, and effects of exposure to carbon monoxide. 10. The student must avoid unknown substances and herbs. 11. The student must distinguish between a toxic dose and a healthy dose. 12. The student explains the effects of alcohol overdose and the dangers it can cause. 13. The student must understand how a toxic substance can affect the blood and its components, as well as the digestive system and its parts. 14. The student must understand how a toxic substance can affect the respiratory and nervous systems. 15. The student must generally identify how to treat some of the poisonings that can occur.
Indicative Contents المحتويات الإرشادية	**The Core Curriculum topics may be covered by asynchronous self-directed learning, synchronous virtual learning, face to face tuition, or a blend of these three learning modalities.** The Core Curriculum for Module 1: 1. History of Toxicology 2. Sources and types of toxins 3. Methods of entry of toxins into the body 4. Toxic status of Industrial poisoning

5. Pesticide poisoning
6. Natural toxins in the environment
7. Domestic poisoning
8. Poisonous animals and plants
9. Carbon monoxide poisoning
10. Drug poisoning
11. medicine poisoning
12. Alcohol poisoning
13. Mechanism of the effect of the toxic substance on the blood and digestive system
14. Mechanism of the effect of the toxic substance on the respiratory and nervous systems
15. Treatment of poisoning cases

The Core Curriculum for Module 2:

1. The student writes an essay on the history of environmental toxicology.
2. The student explains, through a poster, the most important sources and types of toxins.
3. The student creates a poster illustrating the most important ways toxins enter the body.
4. The student writes a report on cases of poisoning in industrial settings.
5. The student discusses the distribution of pesticides among living organisms and their effects.
6. The student writes a report on the most common natural toxins found in the environment.
7. The student gives a presentation on the most important toxins that can be found in the home environment.
8. The student gives a visual presentation of the most important toxic animals and plants in their environment.
9. The student explains, through a poster, carbon monoxide poisoning.
10. The student submits an essay on drugs, their types, and their dangers.
11. The student writes an essay about drug poisoning.
12. The student presents a presentation on the effects of alcohol poisoning.
13. The student presents a poster illustrating the most important components of blood and the most important parts of the digestive system affected by toxins.
14. The student presents a poster illustrating the most important parts of the respiratory and nervous systems affected by toxins.
15. The student writes a presentation on how to treat some cases of poisoning.

The Core Curriculum for Module 3:

1. Remind that toxicology is one of the oldest sciences in human history.
2. Identify the most important sources of toxins and their types.
3. Find ways to control and prevent toxins from entering the body.
4. Remind the student of the potential dangers emanating from industrial environments of all kinds.
5. Find ways to determine the optimal use of pesticides to avoid their risks.
6. Explore the environment and identify natural sources of toxins.
7. Monitor sources and cases of poisoning that may originate in the home environment.
8. Identify the most important species of animals and plants that are naturally toxic.
9. Find ways to treat or control carbon monoxide release.
10. Find ways to limit drugs and remind students of their dangers.
11. Treat drug poisoning and remind students of the dangers of improper use.
12. Warning against excessive alcohol consumption.
13. Find ways to protect the blood and essential organs from the effects of toxins.
14. Protect the nervous and respiratory systems from exposure to toxins.
15. Remind students of the most important methods. Common in treating poisoning cases

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Enabling students to research and investigate the types of toxic substances and their natural sources, as well as to identify dangerous plant and animal species that secrete toxins, and how to mitigate this risk as much as possible. Furthermore, it encourages students to find ways to treat or eliminate the effects of toxic substances present in the environment, or at least use them to treat certain diseases instead of synthetic compounds. This is to preserve natural environments and protect living organisms on Earth. Furthermore, it helps students understand methods for diagnosing cases of poisoning in living organisms in the environment, thus identifying the most appropriate methods for treating them or avoiding them in the future.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	46	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2/8	10% (10)	3, 5, 6,8,9,10,11,13	LO #1- #14
	Assignments	2/8	10% (10)	3, 5, 6,8,9,10,11,13	LO #1 - #14
	Projects / Lab.	1/2	10% (10)	8, 13	LO #1 - #14
	Report	6/2	10% (10)	3,4, 6, 8, 10,13	LO #1- #13
Summative assessment	**Midterm Exam**	4hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

COURSE SCHEDULE:-

Week	hours	Topics Covered	Learning Outcomes
1-2	6	History of Toxicology, Sources and types of toxins	Known the history of toxic science and the ancient sources of toxin and its types
3-4	6	Methods of entry of toxins into the body, toxic status of Industrial poisoning	Discission the methods that used by toxic materials to enter the body and shown the important toxic material from industries
5-6	6	Pesticide poisoning, Natural toxins in the environment	Explain how pesticide can be poison and define the important toxin that can be find naturally
7-8	6	Domestic poisoning, Poisonous animals and plants	Known the toxic materials that found in domestic places and shown the important organisms that define as dangerous to human in environment
9-10	6	Carbon monoxide poisoning, Drug poisoning	Discussion the source and effect of CO on human life and effect of unsuitable and over doses drugs on human
11-12	6	medicine poisoning, Alcohol poisoning	Shown the effect medicine doses and pointed to the type, effect and the dangerous of over doses of alcohol
13-14	6	Mechanism of the effect of the toxic substance on the blood and digestive system, Mechanism of the effect of the toxic substance on the respiratory and nervous systems	Showed the important mechanism of toxin to effect of digestive system, respiratory system and nervous systems
15	6	Treatment of poisoning cases	Identify the most important ways to treat cases of poisoning
Final Exam			

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	History of Toxicology
Week 2	Sources and types of toxins
Week 3	Methods of entry of toxins into the body
Week 4	Toxic status of Industrial poisoning
Week 5	Pesticide poisoning
Week 6	Natural toxins in the environment
Week 7	Domestic poisoning
Week 8	Poisonous animals and plants
Week 9	Carbon monoxide poisoning
Week 10	Drug poisoning
Week 11	medicine poisoning
Week 12	Alcohol poisoning
Week 13	Mechanism of the effect of the toxic substance on the blood and digestive system
Week 14	Mechanism of the effect of the toxic substance on the respiratory and nervous systems
Week 15	Treatment of poisoning cases
Week 16	

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Laboratory guide and introduction
Week 2	Toxicity and types of toxicity
Week 3	Dose and types of toxins
Week 4	Dose-toxicity relationship: (response of organisms to toxins)
Week 5	Toxicity of chemical pesticides
Week 6	Poisonous plants: (tobacco plant: nicotine)
Week 7	Chemical toxins: extract of plant seeds
Week 8	Plant toxins: castor bean
Week 9	Chemical toxins: heavy metals
Week 10	Effect of some toxic substances on seed germination

Week 11	Chemical toxins: hydrocarbons
Week 12	Plant toxins: algal toxins
Week 13	Fungal toxins
Week 14	Domestic toxins: detergents
Week 15	Agricultural toxins: chemical fertilizers

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**القماز , سمير غازي. (2003). علم السموم. الطبعة الاولى , مكتبة المجتمع العربي للنشر ودار صفاء للنشر والتوزيع , عمان, الاردن, ص 269.** Hodgson, E. (2004). A textbook of modern toxicology. Third edition, Department of Environmental and Biochemical Toxicology North Carolina State University, Published by John Wiley & Sons, Inc., Hoboken, New Jersey Published simultaneously in Canada	yes
Recommended Texts	Manahan, S. E. (2002). *Toxicological chemistry and biochemistry*. CRC Press.	No
Websites	https://maken.wikiwijs.nl/120137/1__Introduction#!page-4124228	

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

Note: Marks 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.

توزيع الساعات المجدولة و الغير مجدولة (SWL= SSWL +USWL)

Activity types	Structured SWL	Un structured SWL	No. of weeks	Time Factor	SWL (hr)
Class	Class Lecturers		15	2	30
Lab.			15	2	30
Tutorial					
Self Study		Self Study			
Quizzes		Preparation for the Quizzes	8	2	16
discussions during lectures					
Projects / Lab.	Project Work		1	3	3
		Preparation for the Project			
Seminar	Presenting a Seminar		15	1	15
		Preparation for the Project			
Assignments, Home Work		Preparation for the H.W.	7	2	14
Report		Preparation for the Report	5	2	10
Midterm Exam (10%)		Preparation for the Exam.	1	4	4
	Evaluation				
Final Exam (50%)		Preparation for the Exam.	1	3	3
	Evaluation				
		Total SWL (hr/ Semester)			125
		ECTS			5

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Environmental Sciences

Environmental Pollution Department

"COURSE PORTFOLIO"

Module Information **معلومات المادة الدراسية**					
Module Title	**اخلاقيات مهنة**			**Module Delivery**	
Module Type	**S**			☐ **Theory** ☒ **Lecture** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**QEPE3610**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level	**1**	**Semester**	**1**		
Department	**Environmental Health**	**College**	**Environmental Sciences**		
Module Leader	**سليمة هادي موسى**	**E-mail**	**Salema@environ.uoqasim.edu.iq**		
Module Leader's Acad. Title	**استاذ مساعد**	**Module Leader's Qualification**	**ماجستير**		
Module Tutor		**e-mail**			
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**		
Scientific Committee Approval Date	**06/06/2023**	**Version Number**	**1.0**		

Student Workload (SWL): Structured SWL (h/w) (Two contact hours of lectures + Two hours of seminars) + Unstructured SWL (h/w) .

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	42	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Relation with other Modules:-

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Environmental Sciences

Environmental Pollution Department

Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**			
Prerequisite module	**None**	**Semester**	
Co-requisites module	**None**	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

COURSE DESCRIPTION: وصف المنهاج	يركز هذا المقرر على المبادئ الاساسية لمفهوم اخلاقيات المهنة
Module Aims أهداف المادة الدراسية	The goal of this course is to develop basic skills and knowledge to raise issues associated with the Analytical Chemistry
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- ان يتمكن الطالب من تعريف المفاهيم الخاصة بحقوق الانسان والديمقراطية 2- ان يتمكن الطالب من وصف المبادئ الخاصة بالديمقراطية وحقوق الانسان 3- أن يكتسب الطالب المعلومات والدراية الكافية حول الممارسات الديمقراطية 4- ان يتمكن الطالب من معرفة اهم القواعد المتعلقة بعمل الانظمة النيابية 5- ان يتمكن الطالب من التعرف على اهم الاساليب الديمقراطية الحديثة في الحكم
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1- د .ماهر صالح علاوي ،رعد ناجي الجدة، رياض عزيز هادي واخرون، حقوق الانسان والطفل والديمقراطية ،جامعة تكريت ،2013،ط2.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	د .حامد الشباوي	No
Recommended Texts		No
Websites		

Grading Scheme

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Environmental Sciences

Environmental Pollution Department

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

Note: Marks 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.

COURSE SCHEDULE:-

Week	hours	Topics Covered	Learning Outcomes
1-2	2	مفهوم اخلاقيات المهنة	ان يتعلم الطالب على المفاهيم المذكورة بصورة عامة
3-4	2	اهمية اخلاقيات المهنة في العمل	ان يعرف الطالب بداية ظهور هذا المفهوم وكيف تطور حتى الوقت الحاضر
5-6	2	تطبيقات اخلاقيات المهنة	يتعرف الطالب على مدى وجود فكرة الاخلاقيات في فترة العصور الوسطى
7-8	2	اخلاقيات المهنة في العمل	يتعلم الطالب معنى الاخلاقيات ومبادئها وخصائصها ومميزاتها
9-10	2	جوانب من اهمية اخلاقيات المهنة	يكتسب الطالب الدراية الكاملة حول انواع الاخلاقيات

			المتعارف عليها في الانظمة السياسية
11-12	2	اهداف اخلاقيات المهنة	يتمكن الطالب من معرفة اهمية اخلاقيات المهنة وما الهدف من تعلمها وماهي اهم خصائصها.
13-14	2	مسؤولية اخلاقيات المهنة	يتمكن الطالب من معرفة مصادر اخلاقيات المهنة التي يتم الرجوع اليها ،سواء على المستوى المحلي ام الدولي والضمانات التي يجب توافرها من اجل حماية حقوق الافراد على الصعيدين الداخلي والدولي
14-15	2	الاخلاق والشخصية	يتمكن الطالب من معرفة الدور الذي يمكن ان تلعبه المنظمات الدولية في اخلاقيات المهنة
Final Exam			

Module Evaluation:-

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment (40%)	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments & H.W.	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	10% (10)	Continuous	
	Seminar	1	10% (10)	14	
	Field Visits Report				
	Discussions During Lectures	10		Continuous	ALL

Summative assessment	**Midterm Exam (10%)**	1hr	10% (10)	8	LO # 1-15
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**تشريعات بيئية**			**Module Delivery**	
Module Type	**Core**			☒**Theory** ☒**Lecture** ☒**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	**UoB12345**				
ECTS Credits					
SWL (hr/sem)					
Module Level	1		**Semester of Delivery**	1	
Administering Department	التلوث البيئي		**College**	كلية علوم البيئة	
Module Leader	سليمة هادي موسى		**e-mail**	SALEMA@environ.uoqasim.edu.iq	
Module Leader's Acad. Title	استاذ مساعد		**Module Leader's Qualification**	دكتوراه	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date			**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	1. التعرف على الانظمة والقوانين والتشريعات التي تهدف حماية البيئة من التلوث 2. التعرف على ضمانات والداستير القانونية في مجال حماية البيئة 3. التاكيد على تشريعات القانونية والانظمة
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**مخرجات المادة التعليمية للتشريعات البيئية** هي النتائج التعليمية المتوقعة التي يجب أن يحققها الطالب أو المتدرب بعد إكمال دراسة هذه المادة. تُصاغ عادة بشكل واضح ومحدد، وتعكس ما سيكون المتعلم قادرًا على **معرفته** و**فعله** و**تقديره** بعد الانتهاء من المادة. فيما يلي مثال على **مخرجات تعلم** (Learning Outcomes)لمادة "التشريعات البيئية:" --- المخرجات المعرفية:**(Cognitive Outcomes)** 1. أن يعرّف المفاهيم الأساسية المتعلقة بالتشريعات والأنظمة البيئية. 2. أن يميز بين أنواع القوانين البيئية (الوطنية، الإقليمية، الدولية.) 3. أن يشرح الإطار القانوني والمؤسسي لحماية البيئة في بلده أو في سياق دولي. 4. أن يحلل العلاقة بين القوانين البيئية ومبادئ التنمية المستدامة. --- المخرجات المهارية:**(Skills Outcomes)** 1. أن يفسّر مواد قانون بيئي معين ويطبّقها على حالات واقعية (مثل التلوث الصناعي أو حماية التنوع البيولوجي.) 2. أن يوظف مهارات البحث القانوني في تحليل وثائق أو تشريعات بيئية. 3. أن يصيغ مقترحات لتعديل أو تطوير تشريعات بيئية قائمة. 4. أن يُعدّ تقارير أو دراسات قانونية تتعلق بانتهاكات بيئية. ---
Indicative Contents المحتويات الإرشادية	المحتويات الإرشادية في التشريعات البيئية هي تلك المواد أو البنود التي لا تفرض التزامات قانونية صارمة، بل تهدف إلى توجيه وتحفيز الأفراد والمؤسسات نحو السلوك البيئي السليم، وتوفير المبادئ العامة أو التوصيات التي يُستحسن اتباعها لتحقيق أهداف حماية البيئة. **أمثلة على المحتويات الإرشادية في التشريعات البيئية:** 1. **مبادئ توجيهية عامة** ○ مثل مبدأ "الاحتراز"، ومبدأ "الملوّث يدفع"، ومبدأ "الاستدامة." ○ هذه المبادئ لا تكون بالضرورة إلزامية، لكنها تشكل الأساس في تفسير القوانين واتخاذ القرارات البيئية. 2. **التوصيات الفنية أو الإدارية** ○ نصوص تشجع على استخدام تقنيات صديقة للبيئة أو إدارة الموارد بكفاءة. ○ مثال: "ينبغي على المنشآت الصناعية اعتماد أفضل الممارسات المتاحة لتقليل الانبعاثات."

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	**استراتيجيات تدريس مادة التشريعات البيئية** هي الطرق والأساليب التعليمية التي يستخدمها المعلم أو المحاضر لتوصيل المفاهيم القانونية والبيئية بفعالية للمتعلمين، مع تعزيز الفهم، التحليل، والتطبيق الواقعي للقوانين البيئية.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**200**		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction - Difference between Circuit Theory and Field Theory
Week 2	Basics of Network Elements
Week 3	Resistance and Resistivity, Ohm's Law and Inductance, Capacitance
Week 4	Review of Kirchhoff's Laws, Circuit Analysis - Nodal and Mesh
Week 5	Linearity and Superposition, Source Transformations, Thévenin and Norton Equivalents
Week 6	Review of Inductor and Capacitor as Circuit Elements, Source-free RL and RC Circuits, Transient Response
Week 7	Mid-term Exam + Unit-Step Forcing, Forced Response, the RLC Circuit
Week 8	Sinusoidal Forcing, Complex Forcing, Phasors, and Complex Impedance, Sinusoidal Steady State Response
Week 9	Nodal and Mesh Revisited, Average Power, RMS, Introduction to Polyphase Circuits
Week 10	Mutual Inductance, Linear and Ideal Transformers, Circuits with Mutual Inductance
Week 11	Frequency Response of Series/Parallel Resonances, High-Q Circuits
Week 12	Complex Frequency, s-Plane, Poles and Zeros, Response Function, Bode Plots
Week 13	Two Port Networks, Admittance, Impedance, Hybrid, and Transmittance Parameters
Week 14	Two Port Networks, Admittance, Impedance, Hybrid, and Transmittance Parameters
Week 15	Two Port Networks, Admittance, Impedance, Hybrid, and Transmittance Parameters
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to Agilent VEE and PSPICE
Week 2	Lab 2: Thévenin's / Norton's Theorem and Kirchhoff's Laws
Week 3	Lab 3: First-Order Transient Responses
Week 4	Lab 4: Second-Order Transient Responses
Week 5	Lab 5: Frequency Response of RC Circuits
Week 6	Lab 6: Frequency Response of RLC Circuits
Week 7	Lab 7: Filters

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**

Required Texts	Fundamentals of Electric Circuits, C.K. Alexander and M.N.O Sadiku, McGraw-Hill Education	Yes
Recommended Texts	DC Electrical Circuit Analysis: A Practical Approach Copyright Year: 2020, dissidents.	No
Websites	https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering	

Grading Scheme
مخطط الدرجات

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

Note: Marks 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.