MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	احياء عام (نبات, حيوان)	Module Delivery	
Module Type	Core	☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	QEDE3603		
ECTS Credits	**8**		
SWL (hr/sem)	**180**		
Module Level		**Semester of Delivery**	
Administering Department		**College**	
Module Leader		**e-mail**	
Module Leader's Acad. Title		**Module Leader's Qualification**	
Module Tutor		**e-mail**	
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date	01/09/2025	**Version Number**	

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	• Introduce students to the basic principles of biology and cellular structure • Enable students to identify cell structures and their functions • Understand cell division processes (mitosis and meiosis) • Classify organisms within different biological kingdoms • Acquire practical skills in using microscopes and analyzing living specimens • Develop accurate observation and scientific interpretation skills

Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**A. Knowledge and Understanding** 1. Understand the basic structure and functions of plant and animal cells. 2. Describe the processes of cell division (mitosis and meiosis). 3. Identify and classify living organisms into different kingdoms (Monera, Protista, Fungi, Plantae, Animalia). **B. Subject-Specific Skills** 1. Use a microscope to observe and analyze cells and microorganisms. 2. Perform and monitor cell division experiments and record observations. 3. Apply classification skills to organize and identify living organisms. **C. Thinking Skills** 1. Analyze and interpret experimental data to reach scientific conclusions. 2. Apply critical thinking to compare different cell structures and biological processes. **D. Transferable and General Skills** 1. Work effectively in teams during laboratory exercises. 2. Communicate scientific findings clearly in written and oral forms. 3. Manage time efficiently to complete experiments and assignments.
Indicative Contents المحتويات الإرشادية	1. **Course Introduction** ◦ General Biology aims to provide students with

fundamental concepts about cells, microorganisms, cell division, and the classification of living kingdoms.

2. **General Guidelines**

- Attend both lectures and laboratory sessions regularly.
- Actively participate in class and lab discussions.
- Submit assignments and reports on time.
- Review lecture notes periodically for exam preparation.

3. **Practical Tasks**

- Use microscopes to examine prepared slides.
- Perform cell division experiments and record observations.
- Identify real samples from different kingdoms (Bacteria, Fungi, Plants, Animals).

4. **Laboratory Safety Instructions**

- Wear lab coats and gloves during experiments.
- Handle specimens and tools carefully.
- Follow the instructor’s directions in every experiment.

5. **Assessment**

- Daily, mid-term, and final exams.
- Laboratory reports.
- Class and homework assignments.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. **Lectures** – Presenting theoretical concepts with visual aids and interactive discussions to enhance understanding. 2. **Laboratory Sessions** – Hands-on experiments for observing cells, microorganisms, and biological processes using microscopes and prepared slides. 3. **Problem-Based Learning (PBL)** – Encouraging students to solve biological problems and analyze case studies. 4. **Collaborative Learning** – Group discussions and teamwork during lab experiments to develop communication and cooperation skills. 5. **Self-Directed Learning** – Assignments, reports, and guided readings to promote independent study and critical thinking. 6. **Use of Technology** – Employing digital resources, simulations, and scientific websites to reinforce lecture and lab materials.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	60	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	120	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**180**		

Module Evaluation تقييم المادة الدراسية					
As		**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	
Week	**Material Covered**
Week 1	General Introduction and Microscope
Week 2	General Introduction and Microscope
Week 3	Shape of cells and Plant cell
Week 4	Shape of cells and Plant cell

Week 5	Animal cell
Week 6	Animal cell
Week 7	Mid-term Exam
Week 8	Cell division(meiosis) and Cell division (mitosis)
Week 9	Cell division(meiosis) and Cell division (mitosis)
Week 10	Kingdom: Monera and Kingdom: Protista
Week 11	Kingdom: Monera and Kingdom: Protista
Week 12	Kingdom: Fungi
Week 13	Kingdom: Animalia
Week 14	Kingdom: Plantae
Week 15	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	**Material Covered**
Week 1	General Introduction and Microscope / مقدمة عامة والمجهر
Week 2	Cell Shapes / أشكال الخلايا

Week 3	Plant and Animal Cells / الخلايا النباتية والحيوانية
Week 4	Cell Division / الانقسام الخلوي
Week 5	Monera / Kingdom Monera مملكة
Week 6	Protista / Kingdom Protista مملكة
Week 7	Mid-term Exam / امتحان نصف الفصل
Week 8	Cell Division (Mitosis and Meiosis) / الانقسام الخلوي (الميتوزي والميوزي)
Week 9	Cell Division (Mitosis and Meiosis) / الانقسام الخلوي (الميتوزي والميوزي)
Week 10	Monera / Kingdom Monera مملكة
Week 11	Protista / Kingdom Protista مملكة
Week 12	Kingdom Fungi / مملكة الفطريات
Week 13	Kingdom Animalia / مملكة الحيوانات
Week 14	Kingdom Plantae / مملكة النباتات
Week 15	Final Exam Preparation / التحضير للامتحان النهائي

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	حافظ محمد عباس .كتاب العربية العامة د	

Recommended Texts	• Lecture notes and worksheets provided by the department • Laboratory practical manuals distributed by the instructor	
Websites	• Recent scientific articles related to cells and cell division • Recent scientific articles related to cells and cell division	

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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	physiscs			**Module Delivery**	
Module Type	Theoretical and practical			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code					
ECTS Credits	4				
SWL (hr/sem)	the first				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Environment Department		**College**	College of Environmental Sciences	
Module Leader	Mohammed sami		**e-mail**	Mohammed.sami@environ.uoqasim.edu	
Module Leader's Acad. Title	assistant professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Mohammed sami		**e-mail**	E-mail	
Peer Reviewer Name	General Physics Book		**e-mail**	E-mail	
Scientific Committee Approval Date	01/09/2025		**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. Develop skills and understanding of physics theories. 2. Apply what you have learned in theory in practice. 3. This course covers the basic concepts of the laws of physics. 4. This is the fundamental subject of all the laws of physics. 5. Understand and solve physics problems.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Understand how the laws of physics work 2. State the terms specific to matter. 3. Summarize what is meant by the laws of physics. 4. Discuss the mathematical relationships involved. 5. Define Ohm's law.
Indicative Contents المحتويات الإرشادية	The guiding content includes: Part A - Circle Theory Physics and the Environment: Definitions of the basics of physics related to the environment Laws of motion, their related terms, how to derive them, and their units Motion in two dimensions, their related equations, and how to derive them Projectile motion, and determining the maximum range and maximum distance of a projectile Review of chapter problems Explanation of the laws of radiation and their related terms Fundamentals

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	60	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	60	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4

Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**120**

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	2	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	2	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)	15	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction
Week 2	Fundamentals of the laws of physics
Week 3	heat transfer
Week 4	Re motion in one dimension
Week 5	Motion in two dimensions
Week 6	Monthly exam
Week 7	Projectile motion
Week 8	Environmental effects of radiation
Week 9	fluid movement
Week 10	exam
Week 11	review
Week 12	The effect of radiation on the human body
Week 13	radiation examination methods
Week 14	physical pollutants
Week 15	exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Ohm's law verification
Week 2	Lab 2: Simple pendulum experiment
Week 3	Lab 3 Legitimate friction experiment
Week 4	Lab 4: Focal length experiment
Week 5	Lab 5: Find the acceleration due to gravity
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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Soil Science**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UoB12345**				
ECTS Credits	**8**				
SWL (hr/sem)	**200**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Name		**e-mail**	E-mail	
Module Leader's Acad. Title	Professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (Suhad Mohammed Al-Hedny)		**e-mail**	Suhad.khudair@environ.uoqasim.edu.eq	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/09/2025		**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. Understand soil formation and classification 2. Recognize soil physical, chemical, and biological properties 3. Assess soil fertility and nutrient management 4. Understand soil biology and ecology 5. Analyze soil degradation and conservation 6. Apply soil science in environmental and agricultural contexts
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks. 1. Describe the processes of soil formation and classification. 2. Analyze soil profiles and classify soils according to standard taxonomy. 3. Evaluate soil fertility status and recommend appropriate nutrient management practices. 4. Conduct basic soil sampling and laboratory analyses (texture, pH, EC, organic matter, etc.). 5. Communicate soil science concepts effectively in written and oral form. 6. Work independently and in teams to solve soil-related environmental and agricultural problems. 7. Apply critical thinking in linking soil science knowledge to sustainable land management and environmental protection.

Indicative Contents
المحتويات الإرشادية
	Indicative content includes the following.
	
	• **Introduction to Soil Science**
	  • Definition, importance, and functions of soil
	  • Soil as a natural resource in agriculture and the environment
	
	• **Soil Formation and Classification**
	  • Soil-forming factors (parent material, climate, organisms, topography, time)
	  • Soil-forming processes (weathering, humification, leaching, etc.)
	  • Soil profile and horizons
	  • Soil taxonomy and classification systems
	
	• **Soil Physical Properties**
	  • Soil texture, structure, density, porosity
	  • Soil color, temperature, and consistency
	  • Soil-water relationships (field capacity, wilting point, infiltration, percolation)
	  • Soil-air balance and gas exchange
	
	• **Soil Chemical Properties**

	• Soil pH, salinity, and alkalinity • Cation exchange capacity (CEC) and base saturation • Soil organic matter and humus • Macronutrients and micronutrients in soil • **Soil Biological Properties** • Soil organisms: bacteria, fungi, algae, earthworms, and their ecological roles • Soil microbial processes (nitrogen fixation, decomposition, nutrient cycling) • **Soil Fertility and Nutrient Management** • Principles of soil fertility • Essential nutrients and deficiency symptoms • Fertilizers, soil amendments, and organic matter management • **Soil Degradation and Conservation** • Types of soil degradation (erosion, salinization, pollution, compaction) • Human impacts on soil quality • Soil conservation practices (contour farming, mulching, cover crops, terracing) • Land reclamation and sustainable land management • **Applied Soil Science** • Soil survey and land evaluation • Remote sensing and GIS in soil studies • Soil in environmental impact assessment (EIA) and climate change context • Case studies in agriculture, urbanization, and environmental management • **Laboratory and Fieldwork (Practical Component)** • Soil sampling techniques • Laboratory analysis of soil texture, pH, EC, and organic matter • Field description of soil profiles and horizon characteristics • Data interpretation and report writing Total hrs = 105 = SSWL - (Exam hrs) = 109 - 4 = 105 hr (Time table hrs x 15 weeks)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	

	Learning & Teaching Strategies: Delivered through lectures, tutorials, lab work, field visits, group discussions, ICT/GIS tools, case studies, and student presentations, supported by independent study and directed reading. **Assessment Strategies:** Combination of written exams (40–50%), lab reports (15–20%), fieldwork reports (10–15%), assignments/case studies (10–15%), and group projects/presentations (10–15%), with ongoing formative assessment (quizzes, discussions, feedback) to monitor progress.

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 – To Soil Science
Week 2	Soil Formation
Week 3	**Soil Physics Properties**

Week 4	Soil Water
Week 5	First Exam
Week 6	Colloids & Chemical Soil Properties
Week 7	Colloids & Chemical Soil Properties
Week 8	Ion Exchangeable
Week 9	Bio Properties
Week 10	Second Exam
Week 11	Bio Properties
Week 12	Soil Degradation
Week 13	Soil degradation
Week 14	Soil Management
Week 15	**Reports Discussion**
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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Organic Chemistry**			**Module Delivery**	
Module Type	**Basic (B)**			**Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code					
ECTS Credits	**6.0**				
SWL (hr/sem)	**150**				
Module Level		**Semester**		**Module Level**	
Department	**Environment Dept.**	**College**	**Department**		
Module Leader	**Kadhim Khalaf Hashim**	**E-mail**	**Kadhim.hashim@environ.uoqasim.edu.iq**		
Module Leader's Acad. Title	**Assistant Professor**	**Module Leader's Qualification**		**Module Leader's Acad. Title**	
Module Tutor	**Name (if available)**	**e-mail**	**Module Tutor**		
Peer Reviewer Name	**Name**	**e-mail**	**Peer Reviewer Name**		
Scientific Committee Approval Date	**01/09/2025**	**Version Number**	**Scientific Committee Approval Date**		

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. The concept of organic chemistry and its role in industrial fields. 3. Identify the types of organic reactions. 4. Study aliphatic and aromatic organic chemical compounds and how to name them. 5. Enhance students' understanding and awareness of the risks resulting from the use of organic chemicals. 6. Understand the methods of preparing organic compounds, whether in the laboratory or industrially.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	A- Cognitive Objectives A1- The student will be able to define organic chemistry concepts, such as the naming of organic compounds, types of organic reactions, and methods of preparation. A2- The student will be able to distinguish between organic compounds and the conditions under which they are prepared. A3- The student will be able to name standard and commercial organic compounds. A4- The student will be able to handle organic materials and classify their hazards. A5- The hazards resulting from the use of organic materials. A6- How to conduct organic chemistry experiments in the laboratory.
Indicative Contents المحتويات الإرشادية	After completing this course, students are expected to be able to: 1. Define the principles of organic chemistry. 2. Understand organic chemistry terminology. 3. Distinguish between types of organic reactions. 4. Understand the concept and mechanism of methods for preparing organic compounds. 5. Understand industrial methods for preparing organic compounds. 6. Explain the mechanics of simple chemical reactions. Total hrs = 93 = SSWL - (Exam hrs) = 93-3 = 90 hr (Time table hrs x 15 weeks)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining

	and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials, and by considering types of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	57	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

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	Fundamentals of organic chemistry
Week 2	Types of general organic reactions
Week 3	Saturated and unsaturated hydrocarbons
Week 4	Alkanes

Week 5	Preparation of alkanes
Week 6	Alkanes reactions
Week 7	Alkenes
Week 8	Preparation and reactions of alkenes
Week 9	Alkynes
Week 10	Preparation and reactions of alkynes
Week 11	Aromatic compounds
Week 12	Preparation and reactions of aromatic compounds
Week 13	Alkyl halides
Week 14	Carboxylic acids
Week 15	Alcohols
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Solubility Table
Week 2	Lab 2: Boiling Point and Melting Point
Week 3	Lab 3: Distinguishing between aliphatic and aromatic compounds. Combustion detection, dissolution detection, and oxidation detection
Week 4	Lab 4: Detecting elements in organic compounds (Lassaine detection)
Week 5	Lab 5: Detecting the carbonyl group in organic compounds
Week 6	Lab 6: Distinguishing between aldehydes and ketones
Week 7	Lab 7: Detecting carboxylic acids and alkyl halides

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	اساسيات الكيمياء العضوية	No
Recommended Texts	Organic Chemistry by Morrison	No
Websites		

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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Analytical Chemistry**			**Module Delivery**	
Module Type	**Basic (B)**			**Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**QEHE2602**				
ECTS Credits	**6.0**				
SWL (hr/sem)	**150**				
Module Level		**Semester**		**Module Level**	
Department	**Environment Dept.**	**College**	**Department**		
Module Leader	**Kadhim Khalaf Hashim**	**E-mail**	**Kadhim.hashim@environ.uoqasim.edu.iq**		
Module Leader's Acad. Title	**Assistant Professor**	**Module Leader's Qualification**		**Module Leader's Acad. Title**	
Module Tutor	**Name (if available)**	**e-mail**	**Module Tutor**		
Peer Reviewer Name	**Name**	**e-mail**	**Peer Reviewer Name**		
Scientific Committee Approval Date	**01/09/2025**	**Version Number**	**Scientific Committee Approval Date**		

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. Understanding the theory of volumetric and gravimetric analysis by understanding the requirements and laws upon which these types of analyses depend. 2. Describe the fundamentals, principles, and concepts of analytical chemistry. 3. Know and apply traditional methods of volumetric and gravimetric chemical analysis to estimate a substance quantitatively. 4. Understand practical chemical experiments, the processes, and steps of chemical analysis. 5. Enhance students' understanding and awareness of volumetric analysis, the principles of titration, the theoretical foundations of various types of titrations, and their practical application. 6. Understand the theoretical foundations of gravimetric analysis, the steps of gravimetric analysis, and its calculations.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	A- Cognitive Objectives A1- The student will be able to define analytical chemistry concepts, such as volumetric analysis, methods for expressing concentration, titration, gravimetric titration, digestion, and other terms used in various types of analysis. A2- The student will be able to express concentration, types of volumetric reactions, and the conditions used in gravimetric analysis. A3- The student will be able to understand the theoretical and practical laws of volumetric and gravimetric analysis. A4- The student will be able to understand the types of titrations in volumetric analysis. A5- Describe the steps of gravimetric analysis. A6- How to interpret the results obtained from volumetric or gravimetric analysis after statistical processing.
Indicative Contents المحتويات الإرشادية	**After the course, students are expected to be able to:** 1. Define the principles of Analytical Chemistry. 2- The student will be able to define analytical chemistry 3- To be able to distinguish between the types of analytical chemistry processes 4- The concept and mechanism of chemical analyses 5- The student should be able to apply chemical analyzes 6- How to interpret processes in analytical chemistry Total hrs = 93 = SSWL - (Exam hrs) = 93-3 = 90 hr (Time table hrs x 15 weeks)

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials, and by considering types of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	57	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

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	Fundamentals of analytical chemistry

Week 2	Methods for expressing solutes
Week 3	Methods of expressing the concentration of solutions
Week 4	Volumetric analysis
Week 5	Buffer solution
Week 6	How to calculate the Px
Week 7	Statistical analysis
Week 8	Types of chemical reactions
Week 9	Types of titrations in volumetric analysis
Week 10	Neutralization titrations (acid-base titrations)
Week 11	Redox titrations
Week 12	Precipitation titrations
Week 13	Complexometric titrations
Week 14	Gravimetric analysis
Week 15	Gravimetric analysis questions
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to the molarity
Week 2	Lab 2: Prepare solutions by dilution
Week 3	Lab 3: Prepare a standard solution of hydrochloric acid
Week 4	Lab 4: Normalization of calcium carbonate
Week 5	Lab 5: Determination of the molar concentration of sodium hydroxide
Week 6	Lab 6: Determine the concentration of hydrochloric acid (HCl) using a standard solution of Na2CO3
Week 7	Lab 7: An experiment to determine the concentration of acetic acid, CH3COOH

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1- اسس الكيمياء التحليلية د.مؤيد قاسم العبايجي 2- اساسيات الكيمياء التحليلة د.هادي كاظم عوض	No
Recommended Texts	Analytical Chemistry by Skoog	No

Websites	

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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Human rights and democracy			**Module Delivery**	
Module Type	s			☒ ✓ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	QEDE14082				
ECTS Credits	8				
SWL (hr/sem)	60				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Type Dept. Code		**College**	Environmental Sciences	
Module Leader	haider Abdul Hussein Hassn		**e-mail**	Haider-1982@uoqasim.edu.iq	
Module Leader's Acad. Title	م . م		**Module Leader's Qualification**	Masters	
Module Tutor	Name (if available) Name		**e-mail**	Haider-1982@uoqasim.edu.iq	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/09/2025		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Uncover historical truth. 2. Promote legal and human rights awareness. 3. Strengthen transitional justice. 4. Preserve national identity. 5. Prepare researchers and specialists.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks. 1. Understanding the fundamental concepts of human rights, democracy, and the main international conventions related to them 2. Developing legal and rights awareness regarding the importance of protecting public rights and freedoms. . 3.. Promoting the values of citizenship and active participation in political and social life. 4. Enhancing dialogue and critical thinking skills in discussing human rights and democracy issues. 5. Strengthening the principles of justice and equality and rejecting all forms of discrimination. 6. Linking theory to practice through the study of real cases of human rights violations and their solutions
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A - Circuit Theory 1 .General Introduction: Defining the concept of human rights and democracy and their importance in building society. 2 .Historical Development: The emergence and evolution of human rights throughout history. 3 .International Conventions: Studying the Universal Declaration of Human Rights, covenants, and international agreements. 4 .Fundamental Rights and Freedoms: Such as the right to

	life, freedom of opinion and expression, freedom of religion and belief, the right to education and work. 5 .Principles of Democracy: Separation of powers, peaceful transfer of authority, rule of law, and popular participation. 6 .Violations and Challenges: Identifying major violations of rights and freedoms and how to address them. 7 .Human Rights in the Iraqi Constitution and National Laws: Studying relevant constitutional and legal provisions. 8 .Practical Applications: Discussing case studies, classroom activities, and practical simulations of democratic experiences. Part B - Analogue Electronics

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students. The strategy focuses on integrating theoretical knowledge with practical application to understand the crimes of the Baath Party

	and their impact on society. Its main components include: 1 .Participatory Learning: Encouraging students to engage in dialogue and open discussions about human rights and democratic issues. 2 .Linking Theory with Practice: Integrating theoretical knowledge with practical applications through case studies and real-world experiences, both locally and globally. 3 .Values-Based Learning: Instilling values of equality, freedom, justice, and respect for others through interactive activities. 4 .Using Modern Methods: Employing techniques such as brainstorming, role-playing, and teamwork to enhance critical thinking. 5 .Raising Human Rights Awareness: Strengthening students' awareness of their rights, responsibilities, and their role in building a cohesive democratic society. 6 .Utilizing Diverse Resources: Incorporating various resources such as international documents, national laws, documentaries, and articles to enrich the learning experience.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	0	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	0
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**30**		

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
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Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Human Rights in Mesopotamian Civilization
Week 2	Human Rights in Other Ancient Civilizations
Week 3	Human Rights in the Medieval and Modern Ages
Week 4	Contemporary Recognition of Human Rights / International Recognition
Week 5	Regional Recognition of Human Rights
Week 6	Non-Governmental Organizations and Their Role in the Field of Human Rights

Week 7	Human Rights Provisions in International Conventions
Week 8	Human Rights Provisions in National Legislation
Week 9	Forms and Generations of Human Rights
Week 10	Terrorism
Week 11	Guarantees of Human Rights
Week 12	The Concept of Democracy
Week 13	Types of Democracy
Week 14	Pillars of the Democratic System
Week 15	Comprehensive Educational Review of the Subject

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts		
Recommended Texts		
Websites		

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
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