Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information **معلومات المادة الدراسية**					
Module Title	**General zoology**			**Module Delivery**	
Module Type	**Core**			**Theory** **✓ Lecture** **✓ Lab** **☐ Tutorial** **☐ Practical** **✓ Seminar**	
Module Code	**Bio1101**				
ECTS Credits	7				
SWL (hr/sem)	**175**				
Module Level	**1**		**Semester**	**1**	
Department	**Biology**		**College**	**College of Science**	
Module Leader	**أ.م. حوراء محمود مراد**		**E-mail**	**hawraa@vet.uoqasim.edu.iq**	
Module Leader's Acad. Title	**Assist.Professor**		**Module Leader's Qualification**		
Module Tutor	**Name (if available)**		**e-mail**	**E-mail**	
Peer Reviewer Name	**Name**		**e-mail**	**E-mail**	
Scientific Committee Approval Date	**10/06/2023**		**Version Number**	**1.0**	

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	97	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Relation with other Modules:-

Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**			
Prerequisite module	**None**	**Semester**	**1**
Co-requisites module	**None**	**Semester**	**1**

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
COURSE DESCRIPTION:	This course focuses on the Concepts and definitions: - Integrated Zoology, characteristics of living organism. Element of life, Structure and function of cells, Cell membrane and exchange through cell membrane, Cell energic. Respiration and glycolysis, TCA oxidative phosphorylation. Animal nutrition. Animal circulation. Animal execration. Neurons' Neuorons, Animal hormones' .
Module Aims أهداف المادة الدراسية	The goal of this course is to develop basic skills and knowledge to raise issues associated, environmental and social issues and to provide techniques to assist in the rational planning and, the student is exposed to the design aspects.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**At the completion of the course, students are expected to be able to:** 1.Define the principles of Zoology. 2.Identify the challenges confronting Zoology. 3.Identify basic components to characterize the quantitative and qualitative nature of Zoology. 4.Identify and analyze actors and decision-making processes related to Zoology. 5.Describe the principle of economic method to Zoology. 6.Describe the various components of Zoology. 7.Describe concepts to determine the Zoology for various uses and users in (amongst others) and explain how these concepts can be used in Zoology. 8.Describe major steps in the participatory and integrated Zoology. 9.explain how the changing balance over time in Biology, demand for water and value of Biology informs (and has been informed by) the biology of development, institutional. 10.Explain and have a critical appreciation of gender, poverty and power, community participation and their implications for Zoology. 11.Explain the theoretical underpinnings and key principles of sustainable development and its application to Zoology. 12.Understand key directions in Zoology for sustainable. 13.Understand the system behaviors and know how to apply the various simulation and optimization techniques to resolves the various socio-technical aspects of Biology. 14. Demonstrate familiarity with Biology issues, including origins, impacts and

	rural and urban settings. 15. Understand the complex interplay between people, climate, land, water and economic development in Zoology. 16. Understand how economic principles can inform planning and allocation of Zoology. 17.Analyze and quantify multiples uses of Zoology for:, hydropower, domestic, environment and other uses. 18.Appreciate the relationship between raw data and the interpretations that stem from it, and how a lack of knowledge or uncertain knowledge influences Zoology decision-making. 19.Integrate information from a range of disciplines into a comprehensive picture of Zoology. 20.Evaluate alternative water management strategies by applying multi-criteria analysis. 21. Design Biology. 22. Develop a sound understanding of the principles and issues relating to Zoology. 23. Apply water accounting techniques as a quick method for assessing Zoology. 24. Apply the skill in solving problems facing Zoology. 25. Apply principles of risk assessment in relation to Zoology. 26. Communicate effectively both orally and in writing, the nature of, and solution to, Zoology issues.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. - "Basics of zoology " . - Zoology.

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	- " Zoology " .	Yes
Recommended Texts	- Zoology Basics.	No
Websites	https://www.coursera.org/browse/ Biology -science-and-.	

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.

COURSE SCHEDULE:-

Week	hours	Topics Covered	Learning Outcomes
***Topic I:* Concepts and definitions**			
1-2	6	– The Zoology – Three characteristics of life – Integrated Zoology – Policy principles – Sustainability of Zoology – Institutional aspects – Strategic issues	1, 2, 7, 10, 11, and 20
***Topic II:* - Zoology Development**			
3-4	6	– Integrated zoology (IZ) – Planning, Design, Construction – Operation and Maintenance	5, 8, 16, 23, and 26
Topic III: - Zoology			

5-6	6	– Zoology quality and quantity issues – Rules today and tomorrow – Structural and nonstructural control – Metrics and measures	6, 18, 22, 25, and 26
		***Topic IV: -* Zoology**	
7-9	9	– The Zoology – Zoology yield – Zoology – The Zoology as a result of human interference.	3, 15, 16, 18 and 26
		***Topic V: -* Zoology principles**	
10	3	– Introduction – Issues in Zoology allocation	7, 9, 14, 20, and 24
		Topic Zoology Demand	
11	3	**Urban Zoology demand** – Estimation of urban Zoology demand – Pricing of urban Zoology	12, 14, 15, 18, 20, 25, and 26
12	3	**Zoology** – Yield response to Zoology – Crop Zoology requirements – Yield reduction due to Zoology	
13	3	**Environmental Zoology requirements** – Introduction – Quantifying environmental Zoology requirements.	
		Topic VII: - Zoology System Analysis	
14-15	18	– Benefit cost analysis – System analysis:- a- Simulation b- Optimization – Decision maker Requirements: Problem Definition, Model Construction, Model Validation, Model Solution, Solution	4, 13, 19, 21, 24,25 and 26

		Appropriateness, and Results Implementation.	
Final Exam			

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Microscope structure and parts
Week 2	Lab 2: Animal cell
Week 3	Lab 3: Animal tissues
Week 4	Lab 4: Connective tissues
Week 5	Lab 5: Special Connective tissues
Week 6	Lab 6: Muscle tissues
Week 7	Lab 7: Exam
Week 8	Lab 8: Animal scientist phylum
Week 9	Lab 9: Platyhelminthes phylum
Week 10	Lab 10: Stringiness phylum
Week 11	Lab 11: Arthropod phylum
Week 12	Lab 12: Mollusca phylum
Week 13	Lab 13: polychaetas phylum
Week 14	Lab 14: Chordata phylum
Week 15	Lab 15: Exam

Learning Outcomes and Assessment Methods for " Zoology Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
***Topic I:* Concepts and definitions**	1, 2, 7, 10, 11, and 20	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
***Topic II:* - Zoology Development**	5, 8, 16, 23, and 26	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: - Zoology		Problem Based Learning, Report	Quizzes, discussions during

	6, 18, 22, 25 and 26	Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	lectures, Written Exams, Home work, oral exams.
***Topic IV:* - Zoology**	3, 15, 16, 18 and 26	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
***Topic V: Zoology* principles**	7, 9, 14, 20, and 24	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: - Zoology Demand	12, 14, 15, 18, 20, 25, and 26	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
***Topic VII*: Zoology Analysis**	4, 13, 19, 21, 24, 25 and 26	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	10% (10)	Continuous	
	Seminar	1	10% (10)		
	Field Visits Report	1	10% (10)	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية					
Module Title	**Organic Chemistry**			**Module Delivery**	
Module Type	**Basic**			**Theory** **✓ Lecture** **✓ Lab** **☐ Tutorial** **☐ Practical** **✓ Seminar**	
Module Code	**Bio1102**				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	**1**		**Semester**	**1**	
Department	**Biology**		**College**	**College of Science**	
Module Leader	**عقيل علاء حسين**		**E-mail**	**aqeelalaa@science.uoqasim.edu.iq**	
Module Leader's Acad. Title	**Associate Professor**		**Module Leader's Qualification**	**Ph.D.**	
Module Tutor	**Name (if available)**		**e-mail**	**E-mail**	
Peer Reviewer Name	**Name**		**e-mail**	**E-mail**	
Scientific Committee Approval Date			**Version Number**		

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	**63**	**Structured SWL (h/w)** **الحمل الدراسي المنتظم للطالب أسبوعيا**	**6**
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	**62**	**Unstructured SWL (h/w)** **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	**3**
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	**125**		

<u>Relation with other Modules:-</u>

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:	**Organic Chemistry I course introduces the foundations of organic chemistry through focusing on structure and bonding of carbon-containing structures alongside with the fundamentals of acidity and basicity of organic molecule to understand the properties and chemical reactivity or organic materials. Then, the course explains the main organic functional groups (such as alkanes, alkenes, alkyl halides, aromatics, carbonyl compounds, amides and amines, and carboxylic acids and their derivatives) and their chemical and physical properties and the main reactions on each functional group. This course will also introduce different aspects of conformational and geometrical isomerism's observed in organic compounds. Having said that, the concepts of stereochemistry in organic compounds will be also covered using some bioactive organic molecules to explain the importance of chirality in biosystems. Finally, introducing the knowledge of reaction mechanisms in organic chemistry and their principles in understanding how reaction takes place will be delivered and applied on some reactions when possible.**
Module Aims **أهداف المادة الدراسية**	**Upon completion of this course, students will be able to:** • **understand bonding and structures and acidity and basicity of organic molecules** • **gain knowledge of various organic functional groups such as alkanes, alkenes, alkynes, and etc. along with their chemical and physical properties;** • **gain basic knowledge of organic reactions of each organic functional group with possibility of learning the rules of reaction mechanism** • **understand and recognize the types of isomerism's present in the main groups of hydrocarbon such as alkanes and alkenes;** • **understand the concept of stereochemistry in organic molecules and how important in pharmaceutical compounds;**
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	**1- Understand the system of nomenclature of simple organic compounds belonging to different classes of organic compounds and describe the properties and reactivity of important organic functional groups understand their acid base strength.** **2. Know the type of bond formation a breaking of organic reactions in a mechanistic pathway, and how steps in a mechanism can lead to a product.** **3. Recognize the stereoisomers and conformational changes in organic compounds.** **4. Draw a "curly arrow" for reaction mechanism of some important organic reactions.**

Indicative Contents **المحتويات الإرشادية**	**J. McMurry, Fundamentals of Organic Chemistry, 7th Edition, Mary Finch, 2011.**

Learning and Teaching Resources **مصادر التعلم والتدريس**		
	Text	**Available in the Library?**
Required Texts	• **J. McMurry, Fundamentals of Organic Chemistry, 7th Edition, Mary Finch, 2011.** • **Jonathan Clayden, Nick Greeves, and Stuart Warren, Organic Chemistry, 2nd Edition, Oxford University Press, 2012.**	**No**
Recommended Texts	**J. McMurry, Fundamentals of Organic Chemistry, 7th Edition, Mary Finch, 2011.**	**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.

COURSE SCHEDULE: -

Week	hours	Topics Covered	Learning Outcomes
Topic I: **Concepts and Definitions of Organic Chemistry**			

1-2	4	Structure and Bonding; Acids and Bases • Functional Groups of Organic Chemistry • Drawing Carbon Skeletons • Alkanes and Cycloalkanes •	1-4
Topic II: - Functional Groups of Organic Chemistry			
3-4	4	Alkenes, Alkynes • Aromatic Compounds • Alcohols, Phenols, and Ethers •	1-4
Topic III: - Functional Groups of Organic Chemistry			
5-6	4	Haloalkanes • Amines • Heterocyclic amines • Aldehydes and Ketones •	1-4
Topic IV: - Functional Groups of Organic Chemistry			
7-9	6	Carboxylic Acid Derivatives • Esters •	1-4
Topic V: - Functional Groups of Organic Chemistry			
10	2	Amides • Nitriles •	1-4
Topic VI: - Common Reactions of Organic Functional Groups			
11	2	Reactions of Alkenes • Reactions of Alkyl halides • Reactions of Alcohols •	1-4
12	2	Reactions of Amines • Reactions of Aldehyde or Ketones • Reactions of Carboxylic acids •	
13	2	Reactions of Esters • Reaction of Amides • Reactions of Nitriles •	
Topic VII: - Stereochemistry			
14-15	4	Stereochemistry of Organic Molecules •	1-4
Final Exam			

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	**Material Covered**

Week 1	**Laboratory safety rules and how to conduct tests.**
Week 2	**Lab 2: Solubility of solid and liquid compounds.**
Week 3	**Lab 3: Saturation and combustion test.**
Week 4	**Lab 4: Detection of elements in organic compounds**
Week 5	**Lab 5: Detection of functional groups in organic compounds.**
Week 6	**Lab 6: Detection of carboxylic**
Week 7	**Lab 7: Detection of phenols.**

Learning Outcomes and Assessment Methods for "Organic Chemistry" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: Concepts and Definitions of Organic Chemistry	**1-4**	**Theoretical Lectures, Exploratory Work Teams, Problem Solving**	**Quizzes, Discussions during Lectures, Written Exams, Oral Exam, Presentation**
Topic II: - Functional Groups of Organic Chemistry	**1-4**	**Theoretical Lectures, Exploratory Work Teams, Problem Solving**	**Quizzes, Discussions during Lectures, Written Exams, Oral Exam, Presentation**
Topic III: - Functional Groups of Organic Chemistry	**1-4**	**Theoretical Lectures, Exploratory Work Teams, Problem Solving**	**Quizzes, Discussions during Lectures, Written Exams, Oral Exam, Presentation**
Topic IV: - Functional Groups of Organic Chemistry	**1-4**	**Theoretical Lectures, Exploratory Work Teams, Problem Solving**	**Quizzes, Discussions during Lectures, Written Exams, Oral Exam, Presentation**
Topic V: - Functional Groups of Organic Chemistry	**1-4**	**Theoretical Lectures, Exploratory Work Teams, Problem Solving**	**Quizzes, Discussions during Lectures, Written Exams, Oral Exam, Presentation**
Topic VI: - Common Reactions of Organic Functional Groups	**1-4**	**Theoretical Lectures, Exploratory Work Teams, Problem Solving**	**Quizzes, Discussions during Lectures, Written Exams, Oral Exam, Presentation**
Topic VII: - Stereochemistry	**1-4**	**Theoretical Lectures, Exploratory Work Teams, Problem Solving**	**Quizzes, Discussions during Lectures, Written Exams, Oral Exam, Presentation**

Module Evaluation:-

Module Evaluation تقييم المادة الدراسية					
As		**Time/Number**	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
	Quizzes	**2**	**10% (10)**	**5, 10**	**LO #1, 3 and 5**

Formative assessment (40%)	**Assignments & H.W.**	**2**	**10% (10)**	**2, 12**	**LO # 1, 3 and 6**
	Projects / Lab.	**1**	**10% (10)**	**Continuous**	
	Seminar	**1**	**10% (10)**		
	Field Visits Report	**1**	**10% (10)**	**10**	**LO # 3, 6**
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	**2 hr**	**10% (10)**	**8**	**LO # All**
	Final Exam (50%)	**3hr**	**50% (50)**	**16**	**All**
Total assessment			**100% (100 Marks)**		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information **معلومات المادة الدراسية**					
Module Title	**Biophysics**			**Module Delivery**	
Module Type	**Basic**			**Theory** **✓ Lecture** **✓ Lab** **☐ Tutorial** **☐ Practical** **✓ Seminar**	
Module Code	**Bio1104**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	**1**	**Semester**	**1**		
Department	**Biological**	**College**	**College of Science**		
Module Leader	**Haider Omran Essa**	**E-mail**	**haider.o.essa@science.uoqasim.edu.iq**		
Module Leader's Acad. Title	**Assistant Professor**	**Module Leader's Qualification**	**Ph.D.**		
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**		
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**		
Scientific Committee Approval Date		**Version Number**			

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Relation with other Modules:-

Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

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:	Interdisciplinary biophysical research is at the forefront of modern science, emerging as a prime area in industry and academia. Key to recent advances has been the development of pioneering experimental techniques and advanced theoretical/modelling approaches capable of assessing the nanoscale dynamics of nature's biomolecules. This modern armoury of the physicist constitutes a powerful toolbox which can be used to tackle a multitude of open questions related to our understanding of human life and disease. In this module we will cover an exciting array of experimental and theoretical tools from modern biophysics, addressing their purpose, instrumentation, underlying physics, limitations and applications. We will study analysis methods used in research labs around the world, and showcase their application to current research activities
Module Aims أهداف المادة الدراسية	In this module we will review in detail several important modern physical science concepts, models, laws, tools and techniques that can be applied to addressing real biological questions, with a thorough discussion of the underlying physics.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The module will focus on a number of concepts, models, laws, tools and techniques of physical science that underpin biophysical methods. It will address a broad range of challenging biological questions. During this module students will: 1. Comprehend the use of physical concepts and laws to produce models of biological systems, and quantitatively analyse these models. 2. Critically analyse the validity of assumptions made in these models and assess their impact on the validity of the results. 3. Understand the physical basis of experimental techniques used to study the biological systems introduced and explain the key results. 4. Assess the key features and biological significance of the systems introduced. 5. Demonstrate an understanding of the key physical principles behind several important biological processes underpinning living matter. 6. Apply modern biophysical tools and techniques to real applications
Indicative Contents المحتويات الإرشادية	Paul Davidovits, "Physics in Biology and Medicine", Third edition, Elsevier Inc, 2008.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the**

		Library?
Required Texts	- " Paul Davidovits, "Physics in Biology and Medicine", Third edition, Elsevier Inc, 2008.	No
Recommended Texts	- Rodney M. J. Cotterill, "Biophysics", John Wiley & Sons Ltd, 2002.	No
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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COURSE SCHEDULE: -

Week	hours	Topics Covered	Learning Outcomes
		***Topic I:* Concepts and definitions**	
1-2	4	– Introduction – Biophysics – Static Forces – Equilibrium and Stability – Equilibrium Considerations for the Human Body – Stability of the Human Body under the Action of an External Force – Skeletal Muscles	1-6

		***Topic II:* - Fluids**	
3-4	4	– Force and Pressure in a Fluid – Pascal's Principle – Hydrostatic Skeleton – Archimedes' Principle – Power Required to Remain Afloat	1-3
		Topic III: - The Motion of Fluids	
5-6	4	– Bernoulli's Equation – Viscosity and Poiseuille's Law – Turbulent Flow – Circulation of the Blood – Blood Pressure – Control of Blood Flow	3-6
		***Topic IV:* - Heat and Kinetic Theory**	
7-9	6	– Heat and Hotness – Kinetic Theory of Matter – Unit of Heat, Specific Heat, Latent Heats. – Transfer of Heat – Transport of Molecules by Diffusion – Diffusion through Membranes – The Respiratory System – First Law of Thermodynamics – Second Law of Thermodynamics – Difference between Heat and Other Forms of Energy. – Thermodynamics of Living Systems	2-3
		***Topic V:* - Electricity**	
10	2	– The Nervous System – The Neuron – Electrical Potentials in the Axon	1-6
		Topic VI: - Atomic and Nuclear Physics	
11	2	– The Atom – Spectroscopy	1-6

		– Quantum Mechanics – Electron Microscope	
12	2	– X-rays – X-ray Computerized Tomography – Lasers	
13	2	- The Nucleus - Magnetic Resonance Imaging - Radiation Therapy - Food Preservation by Radiation	
Topic VII: - Optics			
14-15	4	– Vision – Nature of Light – Structure of the Eye – Accommodation – Retina	2-3
Final Exam			

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Operating Plateau for the Geiger Tube
Week 2	Lab 2: Geiger Counter Efficiency for Gamma Ray
Week 3	Lab 3: Linear Absorption Coefficient
Week 4	Lab 4: Alpha Range Measurement
Week 5	Lab 5: Half-Life Determination
Week 6	Lab 6: Ionization of Air Using a Radiation Source
Week 7	Lab 7: Inverse Square Law

Learning Outcomes and Assessment Methods for " Biophysics " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: **Concepts and definitions**	1-6	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.

Topic II: **- Fluids**	1-3	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: - The Motion of Fluids	3-6	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: **- Heat and Kinetic Theory**	2-3	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: **- Electricity**	1-6	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: - Atomic and Nuclear Physics	1-6	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII**: - Optics**	2-3	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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, 3 and 5
	Assignments & H.W.	2	10% (10)	2, 12	LO # 1, 3 and 6
	Projects / Lab.	1	10% (10)	Continuous	
	Seminar	1	10% (10)		
	Field Visits Report	1	10% (10)	10	LO # 3, 6
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # All
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information **معلومات المادة الدراسية**					
Module Title	**Arabic Language**			**Module Delivery**	
Module Type	**Basic**			**Theory** **✓ Lecture** **Lab** **☐ Tutorial** **☐ Practical** **☐ Seminar**	
Module Code	**Bio1105**				
ECTS Credits	4				
SWL (hr/sem)	**100**				
Module Level	**1**	**Semester**	**1**		
Department	**Biological**	**College**	**College of Science**		
Module Leader	**Hassan Mohammed Kadum**	**E-mail**			
Module Leader's Acad. Title	**Assistant Professor**	**Module Leader's Qualification**	**Ph.D.**		
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**		
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**		
Scientific Committee Approval Date		**Version Number**			

Student Workload (SWL): Structured SWL (h/w) (Two contact hours of lectures) + 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
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	67	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Relation with other Modules:-

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:	•
Module Aims أهداف المادة الدراسية	**وتتلخص الأهداف العامة لتدريس اللغة العربية للمرحلة الإعدادية والتي ينبغي على المعلم أن يتعرف عليها لسعى إلى تحقيقها مع نهاية العام الدراسي في النقاط التالية** **1-أن يعتز الطالب باللغة العربية اعتزازًا بحبه إليه وترغيبه فيما حفظته لنا من أمجاد الإسلام ومثله العليا في الشجاعة، الصدق، الكرم والوفاء.** • **يحسن التعبير عما في نفسه لما تقتضيه المواقف، شفهيًا أو كتابيًا بلغة مستقيمة.2-** **اكتساب الطالب القدرة على التعبير الصحيح في التخاطب، التحدث والكتابة.3-**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**أما الأهداف الخاصة لتدريس اللغة العربية للمرحلة الإعدادية فهي كالتالي:** • **تأصيل أسس العقيدة الإسلامية السمحة.** • **غرس الأخلاق الكريمة في نفوس الطلاب.** • **ترسيخ المثل العليا والمبادئ الفكرية، الروحية والوطنية في نفوس الطلاب.** • **تنمية عواطف الإيثار، حل العمل، التضحية والخير في نفوس الأبناء.** • **تنمية الثروة اللغوية لدى الطلاب.5-** • **الحفاظ على الفصحى والابتعاد عن اللهجة العامية ومعالجة الأخطاء الشائعة.** • **الارتقاء بأسلوب الطلاب في كل المهارات.** • **تنمية ملكة تركيب الجمل العربية، تحدثًا وكتابة.** • **الارتقاء بمهارة الإعراب ومعرفة أهميته في فهم قواعد اللغة العربية.** • **تنمية ملكة الحفظ لدى الطلاب.10-** • **المحافظة على اللغة العربية الفصحى والابتعاد عن العامية بحفظ أكبر قدر من النصوص.** • **الارتقاء بأسلوب التفسير، الإنشاء، والشرح عند الطلاب.**
Indicative Contents المحتويات الإرشادية	**المسهر في علوم اللغة وانواعها، معجم لسان العرب لابن منظور**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	المسهر في علوم اللغة وانواعها، معجم لسان العرب لابن منظور، ، دلائل الاعجاز للجرجاني	No

Recommended Texts	كتاب الطراز للقزويني، دلائل الاعجاز للجرجاني	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.

COURSE SCHEDULE: -

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	الاستثناء
Week 2	الاستثناء
Week 3	الجملة الاسمية
Week 4	الجملة الاسمية
Week 5	الجملة الفعلية
Week 6	الجملة الفعلية

Week 7	الحروف الناسخة
Week 8	الحروف الناسخة
Week 9	الفعل المضارع
Week 10	النواسخ
Week 11	النواسخ
Week 12	فعل الامر
Week 13	النثر الحديث / السرد
Week 14	الراوية
Week 15	امتحان نهائي

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, 3 and 5
	Assignments & H.W.	2	10% (10)	2, 12	LO # 1, 3 and 6
	Projects / Lab.				
	Report	1	10% (10)		
	Field Visits Report				
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # All
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

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Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية			
Module Title	General Mathematics	**Module Delivery**	
Module Type	**Basic**	☐ **Theory** ☒ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code	Bio1103		
ECTS Credits	4		
SWL (hr/sem)	**100**		
Module Level	**1**	**Semester**	**1**
Department	***Bachelor's degree (Biology)***	**College**	***College of science***
Module Leader	**م.مريم صبيح علي**	**E-mail**	**maryam_sabbeh@science.uoqasim.edu.iq**
Module Leader's Acad. Title	**Assistant Professor**	**Module Leader's Qualification**	**MASTER**
Module Tutor	**Maryam sabbeh ali**	**e-mail**	**maryam_sabbeh@science.uoqasim.edu.iq**
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date	**01/06/2023**	**Version Number**	**1.0**

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	52	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Relation with other Modules:-

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

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:	Mathematics is an area of knowledge that includes the topics of numbers, formulas and related structures, shapes and the spaces in which they are contained, and quantities and their changes. These topics are represented in modern mathematics with the major subdisciplines of number theory, algebra, geometry, and analysis, respectively. There is no general consensus among mathematicians about a common definition for their academic discipline. Most mathematical activity involves the discovery of properties of abstract objects and the use of pure reason to prove them. These objects consist of either abstractions from nature or—in modern mathematics—entities that are stipulated to have certain properties, called axioms. A *proof* consists of a succession of applications of deductive rules to already established results. These results include previously proved theorems, axioms, and—in case of abstraction from nature—some basic properties that are considered true starting points of the theory under consideration. Mathematics is essential in the natural sciences, engineering, medicine, finance, computer science and the social sciences. Although mathematics is extensively used for modeling phenomena, the fundamental truths of mathematics are independent from any scientific experimentation. Some areas of mathematics, such as statistics and game theory, are developed in close correlation with their applications and are often grouped under applied mathematics. Other areas are developed independently from any application (and are therefore called pure mathematics), but often later find practical applications. The problem of integer factorization, for example, which goes back to Euclid in 300 BC, had no practical application before its use in the RSA cryptosystem, now widely used for the security of computer networks. Historically, the concept of a proof and its associated mathematical rigour first appeared in Greek mathematics, most notably in Euclid's *Elements*. Since its beginning, mathematics was essentially divided into geometry and arithmetic (the manipulation of natural numbers and fractions), until the 16th and 17th centuries, when algebra and infinitesimal calculus were introduced as new areas. Since then, the interaction between mathematical innovations and scientific discoveries has led to a rapid lockstep increase in the development of both. At the end of the 19th century, the foundational crisis of mathematics led to the systematization of the axiomatic method, which heralded a dramatic increase in the number of mathematical areas and their fields of application. The contemporary Mathematics Subject Classification lists more than 60 first-level areas of mathematics.
Module Aims أهداف المادة الدراسية	1. The first level is to improve understanding (ability development). In interpretation, prediction and conclusion 2. The second level is the development of applied capabilities (Application 3. The third level gives the student the ability to analyze 4. The fourth level is to develop the student's ability to integrate ideas and information (level Synthesis (which is the opposite of analysis 5. Level 5: Evaluation: Developing the student's ability to judge a value learned

	material
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**At the completion of the course, students are expected to be able to:** 1- Teaching the student to receive (receiving) Receiving 2- Developing the student's ability to respond 3-c That the student be able to evaluate (give a value). 4- Improving the student's ability to value organization 5- C Integration of value with the behavior of the individual (giving a personality trait) Characterization by the vaule
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. -Serie Schaum Mathematics

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Real functions	Yes
Recommended Texts	Integles and derveies	yes
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
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COURSE SCHEDULE:-

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	الاعداد الحقيقية والدوال
Week 2	النهايات والاستمرارية والاشتقاقات
Week 3	اشتقاق وتفاضل الدوال المتسامية
Week 4	الدوال الزائدية
Week 5	المحددات وصفاتها
Week 6	المصفوفات وصفاتها وحجمها وظربها
Week 7	حل جملة المعادلات الخطية بواسطة المصفوفات
Week 8	طرق التكامل وتقريب التكامل بطريقتي شبه المنحرف وطريقة السميسونية
Week 9	التكاملات اللانهائية
Week 10	الاحداثيات القطبية
Week 11	تقارب وتباعد المتسلسلات
Week 12	متسلسلات تيلروكلورين وطريقة استعمالها
Week 13	التفاضل الجزئي
Week 14	التكاملات المضاعفة
Week 15	التكامل الخطي

Learning Outcomes and Assessment Methods for " General Mathematics " Course.

- Conducting fun positive competitions.

- Organizing lectures prepared by students.

-Formation of volunteer work groups.

-Scientific trips

Module Evaluation:-

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11

Formative assessment (40%)	**Assignments & H.W.**	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Seminar	1	10% (10)		
	Field Visits Report				
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

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Department of Biology

MODULE DESCRIPTION
وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	حقوق الإنسان والديمقراطية	**Module Delivery**	
Module Type	**Basic**	**Theory** ☒ **Lecture** **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**Bio1106**		
ECTS Credits	**4**		
SWL (hr/sem)	**100**		

Module Level	UG	**Semester of Delivery**	1
Administering Department	Type Dept. Code	**College**	Type College Code
Module Leader	أ.م. فاضل راضي محمد حمود الخشخشي	**e-mail**	fadhilu99@biotech.uoqasim.edu.iq
Module Leader's Acad. Title	**Ass.Proff**	**Module Leader's Qualification**	
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	/06/202314	**Version Number**	1.0

Student Workload (SWL)
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	67	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

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 Aims أهداف المادة الدراسية	1 .تطوير معلومات الطلبة بأهمية التعرف على ماهية حقوق الانسان والحرية والديمقراطية . 2.تدريس الطلبة مجموعة من الحقوق والحريات المعاصرة لاسيما تلك التي على مساس بتخصصهم . 3.تدريس الطلبة موضوع الديمقراطية ومبادئها واسسها وقواعدها العامة وتطبيقاتها السليمة. 4.تطوير فهم الطلبة بشأن النظم الانتخابية كونها وسيلة رئيسية في اسناد السلطة في الديمقراطية . 5.تعزيز التزام الطلبة بالنظام العام والقوانين التي تحدد وتضمن الحقوق والحريات. 6. تقنين وضبط سلوك الطلبة عند ممارستهم لحقوقهم وحرياتهم من خلال مراعاة حقوق وحريات الاخرين والملكيات العامة والخاصة واحترام سيادة الدولة وتعزيز روح المواطنة. 7-إطلاع الطلبة على آخر المستجدات في مجال حقوق الانسان والحريات العامة والديمقراطية الالكترونية .
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1 .التعرف على القواعد العامة للحقوق والحريات والديمقراطية. 2 .التعرف على كيفية ممارسة الحقوق والحريات ضمن إطار منظومة القوانين السائدة . 3 .التعرف على كيفية تمكين المرأة في المجتمع التي تمثل نصفه من دون أن تتمتع

بكامل حقوقها. 4 .التعلم بكيفية المحافظة على السلم المجتمعي كل حسب موقعه في المجتمع. 5 . التعرف على إيجابيات وسلبيات النظم الانتخابية المعتمدة وماهية النظام الانتخابي الأمثل. 6 . إدراك أهمية دراسة موضوع حقوق الانسان والحريات العامة في العراق من خلال التحديات التي تواجهها وسبل مواجهتها او حلها. 7 .التعرف على الضمانات الدستورية للحقوق والحريات وكيفية الاستفادة منها عمليا.	
- تتضمن هذه المادة ثلاثة أقسام، وهي : **القسم الأول- حقوق الإنسان:** نتناول في هذا القسم مفهوم حقوق الإنسان، وتعريفه، ومميزاته، وخصائصه، وتصنيف الأمم المتحدة لها، وأهمية دراستها في العراق والإشكاليات التي تواجه موضوع حقوق الإنسان. ثم نعرض حقوق الإنسان في ميثاق الأمم المتحدة، وإعلانها لعام 1948، وعهديها لعام 1966، وأنشائها مجلس الأمم المتحدة لحقوق الإنسان، ونبين اختصاصاته وتكوينه. ومن ثم سوف نتطرق الى نماذج مختارة من الحقوق لاسيما الحق في التعايش الاجتماعي السلمي، وحق المرأة العراقية في التمكين والقيادة، والحق في الصحة والعيش في بيئة نظيفة، ثم نحلل حقوق الإنسان الواردة في دستور جمهورية العراق لعام 2005 والضمانات الخاصة بها. **القسم الثاني-الحريات العامة:** نتناول في هذا القسم مفهوم وتعريف الحريات العامة، وتصنيفها وخصائصها، وبيان أن المساواة القانونية هي أساس الحريات العامة، لارتباطها بالعدالة وبالحقوق والحريات، والقضاء، ووظائف الدولة والمنافع والتكاليف العامة. وعرض جوانب المساواة في الحقوق المدنية والسياسية، والحقوق الاجتماعية والاقتصادية والثقافية. ومن ثم ندرس نماذج مختارة من الحريات العامة لاسيما حرية التظاهر السلمي وحرية الدين أو المعتقد وضماناتهما القانونية. **القسم الثالث-الديمقراطية:** نتناول في هذا القسم مفهوم الديمقراطية وتعريفها ومبادئها، وأشكالها من حيث ممارسة الشعب للسلطة، وندرس علاقة الحكومة الديمقراطية بوسيلة الانتخاب. ثم نبين ونحلل نظم الانتخاب الرئيسية، وهي: نظام الانتخاب بالأغلبية، ونظام الانتخاب بالتمثيل النسبي، وبما يتضمنه من طرق احتساب الأصوات المتبقية. ثم نعرض أساليب الديمقراطية من خلال	**Indicative Contents** المحتويات الإرشادية

	دراسة نظم الاقتراع المقيد والعام، وبعدها ندرس تطبيق طريقة سانت لاغو في العراق على مستوى مجالس المحافظات ومجلس النواب ونقدم تقييما موضوعيا لهذه التجربة، ونخصص حيزا لأنواع الديمقراطيات الناشئة لاسيما الديمقراطية التوافقية والمحلية والإلكترونية.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	**الإستراتيجية الرئيسية التي سيتم تبنيها في تقديم هذه المادة:** **1-إلقاء المحاضرات باستخدام الوسائل الحديثة (DATA SHOW) (LCD).** **2-استخدام المنصات الإلكترونية الرسمية عند تطلب الأمر ذلك.** **3- تشجيع الطلاب على المشاركة في الحوارات العلمية.** **4- تحسين مهارات التفكير النقدي وتعزيزها لدى الطلبة.** **5-العصف الذهني.** **6-حث الطلبة على القيام بأنشطة علمية تخص المادة، بما فيها إجراء أوراق بحث (PAPER).** **7-تزويد الطلبة بنسخ صوتية وفيديوية للمحاضرات.** **8-إجراء الاختبارات والامتحانات الشفوية والتحريرية المفاجئة والمخططة.**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	**-د. منذر الشاوي، فلسفة الدولة، ط2، الذاكرة للنشر والتوزيع، بغداد ، 2013.** **-د. حميد حنون، حقوق الإنسان، مكتبة السنهوري، بغداد، 2013.** **-د. علي الشكري ، حقوق الانسان بين النظرية والتطبيق ، ايتراك للطباعة والنشر ، القاهرة ، 2009 .**	Yes

	-د.عدنان عاجل عبيد ، القانون الدستوري النظرية العامة والنظام الدستوري في العراق ، ط2 ، مؤسسة النبراس للطباعة والنشر ، العراق –النجف الأشرف ، 2012 . -د.علي هادي حميدي الشكراوي، النظم السياسية المعاصرة، (القاهرة: دار النهضة العربية، 2014). -د. محمد ثامر، حقوق الإنسان المبادئ العامة والأصول، مكتبة السنهوري، بغداد ، 2012. -أرنت ليبهارت، الديمقراطية التوافقية في مجتمع متعدد ، معهد الدراسات الاستراتيجية، الفرات للنشر والتوزيع، بيروت، 2006. -أركان عباس حمزة الخفاجي، الحق في حرية التظاهر السلمي-دراسة مقارنة، رسالة ماجستير غير منشورة، كلية القانون – جامعة بابل، 2013. - سعد مظلوم عبد الله العبدلي - ضمانات حرية ونزاهة الانتخابات(دراسة مقارنة) - رسالة ماجستير - كلية القانون - جامعة بابل -2007 . - نوال مغزيلي، دور تكنولوجيا الإعلام والاتصال في إرساء ممارسة جديدة للديمقراطية: الديمقراطية الإلكترونية، عدد الثالث (يونيو – حُزيران) لسنة 2017 ، مجلة العلوم السياسية والقانون، المركز الديمقراطي العربي.	
Yes	-الأمم المتحدة، ميثاق الأمم المتحدة والنظام الأساسي لمحكمة العدل الدولية، إدارة شؤون الإعلام، الأمم المتحدة ،1999. -الأمم المتحدة، الجمعية العامة، الإعلان العالمي لحقوق الإنسان، القرار رقم (217 ألف د-3) ، الصادر بتاريخ : 10/كانون الأول/ 1948 . - الأمم المتحدة، مجموعة صكوك دولية، المجلد الأول، الأمم المتحدة، نيويورك، 1993، (Part 1 ,A.94.XIV-Vol.1) . -دستور جمهورية العراق لعام 2005 . منشور في الوقائع العراقية، العدد (4012)، بتاريخ: 28 كانون الأول 2005 ، السنة السابعة و الأربعون .	Recommended Texts
https://www.un.org/ar/sections/issues-depth/global-issuesoverview/index.html		Websites

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	ماهيَّة حقوق الإنسان :المفهوم والتعريف والمميزات والخصائص وأهمية دراستها في العراق
Week 2	حقوق الإنسان في ميثاق منظمة الأمم المتحدة واعلانها والعهدين ومجلسها

Week 3	الحق في التعايش الاجتماعي السلمي ووسائل تحقيقه
Week 4	تمكين المرأة العراقية بوصفها أحد حقوقها المهمة
Week 5	الحق في الصحة والعيش في بيئة نظيفة
Week 6	حقوق الإنسان في ظل دستور جمهورية العراق لعام 2005 وضماناتها
Week 7	ماهيّة الحريات العامة: مفهومها وتعريفها وتصنيفها وخصائصها
Week 8	المساواة والحريات العامة
Week 9	حرية التظاهر السلمي: المفهوم والخصائص والاركان والضمانات القانونية
Week 10	حرية الدين أو المعتقد: المفهوم والخصائص والضمانات القانونية
Week 11	الديمقراطية وأشكالها ووسيلة اسناد السلطة
Week 12	نظم الانتخاب الرئيسية: الأغلبية والتمثيل النسبي
Week 13	أساليب الديمقراطية: نظم الاقتراع المقيد والعام
Week 14	تطبيق طريقة سانت لاغو في العراق وتقييمها
Week 15	الديمقراطية التوافقية والمحلية والإلكترونية
Week 16	**Preparatory week before the final Exam**

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	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded

(0 – 49)	**F –** Fail	راسب	(0-44)	Considerable amount of work required

Note: 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 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, 3 and 5
	Assignments & H.W.	2	10% (10)	2, 12	LO # 1, 3 and 6
	Projects / Lab.				
	Seminar				
	Field Visits Report	1	10% (10)	10	LO # 3, 6
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # All
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

"COURSE PORTFOLIO"

Module Information **معلومات المادة الدراسية**

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

Module Title	**Botany**	**Module Delivery**	
Module Type	**Core**	☐ **Theory** ✓ **Lecture** ✓ **Lab** ☐ **Tutorial** ☐ **Practical** ✓ **Seminar**	
Module Code	**Bio1217**		
ECTS Credits	**8**		
SWL (hr/sem)	**200**		

Module Level	**1**	**Semester**	**2**
Department	**Biology**	**College**	**College of science**
Module Leader	**أ.م.د.مهند محمد صاحب**	**E-mail**	mohanad.sahib@science.uoqasim.edu.iq
Module Leader's Acad. Title	**Ass.Proff**	**Module Leader's Qualification**	**PhD**
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**
Scientific Committee Approval Date	**01/06/2023**	**Version Number**	**1.0**

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	107	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Relation with other Modules:-

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

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

COURSE DESCRIPTION:	Teaching the students what is the Botany how to **scientific study of plants, algae, and fungi**. It includes the study of plant growth, structure, reproduction, metabolism, diseases, physiology, and chemical properties of the plants. Botany is studied in the context of general science and is more theoretical than practical. This course is useful for anyone pursuing a career in general biology, horticulture, agriculture, or ecology
Module Aims أهداف المادة الدراسية	**The main goal of study** 1. Describe the field of Botany. 2. Interrelate other fields and sub-discipline of botany. 3. Trace the timeline of developments in botany. 4-Understand the basic structures of plants 5-Teaching the student how to study the types of plants and how to identify it and understand the vital process that take place in the plant organs at the cellular level.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Students will be able to apply the scientific method to questions in biology by formulating testable hypotheses, gathering data that address these hypotheses, and analyzing those data to assess the degree to which their scientific work supports their hypotheses. 2. Students will be able to present scientific hypotheses and data both orally and in writing in the formats that are used by practicing scientists. 3. Students will be able to access the primary literature, identify relevant works for a particular topic, and evaluate the scientific content of these works. 4. Students will be able to apply fundamental mathematical tools (statistics, calculus) and physical principles (physics, chemistry) to the analysis of relevant biological situations. 5. Students will be able to identify the major groups of organisms with an emphasis on plants and be able to classify them within a phylogenetic framework. Students will be able to compare and contrast the characteristics of plants, algae, and fungi that differentiate them from each other and from other forms of life. 6. Students will be able to use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth. They will be able to use specific examples to explicate how descent with modification has shaped plant morphology, physiology, and life history. 7. Students will be able to explain how organisms function at the level of the gene, genome, cell, tissue, organ and organ-system. Drawing upon this knowledge, they will be able to give specific examples of the physiological adaptations, development, reproduction and behavior of different forms of life. 8. Students will be able to explicate the ecological interconnectedness of life on earth by tracing energy and nutrient flows through the environment. They will be able to relate the physical features of the environment to the structure of populations,

	communities, and ecosystems. 9. Students will be able to demonstrate proficiency in the experimental techniques and methods of analysis appropriate for their area of specialization within biology classification and basic principles of enzyme functioning.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. -

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	- **Botany : An Introduction to Plant Biology by James D. Mauseth (1998, Hardcover, Revised edition)**	yes
Recommended Texts	- **Botany : An Introduction to Plant Biology, Sixth Edition / AvaxHome**	yes
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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	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

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COURSE SCHEDULE:

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Chemistry of life
Week 2	Pro and eukaryotic
Week 3	The cell wall and cell membrane
Week 4	Cell organelle
Week 5	Classification of organism
Week 6	Plant cell structure
Week 7	The plant body
Week 8	Water absorption and transpiration
Week 9	Diffusion and osmosis
Week 10	Light, fitness of light
Week 11	photosynthesis
Week 12	Respiration 1
Week 13	Respiration 2
Week 14	Cell division
Week 15	Plant genetics

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	The Microscope
Week 2	Plant cell
Week 3	(Prokaryote and Eukaryote cell)
Week 4	Cell Division (Reproduction)
Week 5	Plant Tissue
Week 6	Meristematic Tissue
Week 7	**Parenchyma**
Week 8	**Chlorenchyma**
Week 9	**Sclerenchyma**
Week 10	**Xylem**
Week 11	**Phloem**
Week 12	Root
Week 13	Stem
Week 14	Leaf
Week 15	Cell Physiology

Learning Outcomes and Assessment Methods for " Botany " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: Chemistry of life	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
– ***Topic II:*** Pro and eukaryotic	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: The cell wall and cell membrane		Problem Based Learning, Report Writing, Theoretical Lectures,	Quizzes, discussions during lectures, Written Exams,

	3, 4, 5, 6 and 9	Small Group Discussions, Scientific Films.	Home work, oral exams.
Topic IV: - Cell organelle	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: Diffusion and osmosis	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: Water absorption and transpiration	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
***Topic VII*:** Respiration 1	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية			
Module Title	**Analytical Chemistry**	**Module Delivery**	
Module Type	**Basic**	☐ **Theory** ✓ **Lecture** ✓ **Lab** ☐ **Tutorial** ☐ **Practical** ✓ **Seminar**	
Module Code	**Bio1208**		
ECTS Credits	7		
SWL (hr/sem)	**175**		

Module Level	**1**	**Semester**	**2**
Department	**Biology**	**College**	**College of science**
Module Leader	**م. احمد منصور محسن**	**E-mail**	**ahmed.mansor@science.uoqasim.edu.iq**
Module Leader's Acad. Title	**مدرس**	**Module Leader's Qualification**	
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**
Scientific Committee Approval Date	**01/06/2023**	**Version Number**	**1.0**

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	82	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Relation with other Modules:-

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:	
Module Aims أهداف المادة الدراسية	يتعلم الطالب عن: أهمية الكيمياء التحليلية وأنواعها. طرق إيجاد تركيزات المواد الكيميائية وأنواع المعايرة الكيميائية. المبادئ الأساسية لطرق التحليل الكمي والنوعي في الكيمياء التحليلية
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. شرح أساسيات الكيمياء التحليلية وخطتها التحليل المميز، علاوة على ذلك، بحر عن دور الكيمياء التحليلية في العلوم. 2. مقارنة التحليلات النوعية والكمية من خلال أ- التدقيق عن طرق التحليل الكمي، بد التدقيق عن طرق التحليل النوعي، ج- تقييم البيانات التحليلية من حيث الإحصاء. 3. يعرف المقصود والقاعدة بنظرياتها ويشرح سلوكياتها، على الرغم من دراسة خصائصها مثل التوازن الأيوني والمحاليل العازلة. 4. شرح التحليل الحجمي للمحاليل والتعبير عن الحسابات الوزنية 5. التعبير عن طرق التحليل بالمعايرة، علاوة على ذلك، التعبير عن مصطلحات مثل الحل القياسي. المعايرة بالمعايرة بالتحليل الحجمي الخلفي، نقطة التكافؤ، نقطة النهاية المجاز الأساسي والثانوي. 6. كن مستعدًا للبحث من حامل تحليل الأوراق البحثية المنشورة وكتابة بحث مصغر منها.
Indicative Contents المحتويات الإرشادية	- 1نطاق الكيمياء التحليلية يبحث العلم عن وسائل محسنة لقياس التركيب الكيميائي للمواد الطبيعية والاصطناعية باستخدام تقنيات تحديد المواد التي قد تكون موجودة في مادة ما وتحديد الكميات الدقيقة المحددة. - 2تحليل الكمي: يتضمن هذا الموضوع شرح التقنية التي تستخدم النمذجة الرياضية والإحصائية والقياس والبحث لفهم السلوك، وكيف سيكون مفيدًا للطالب في حياته. - 3مراجعة شاملة الأولى المهمة للكيمياء التحليلية الشوارد القوية والضعيفة ؛ وحدات الوزن والتركيز الهامة ، تقييم البيانات التحليلية: تعريف المصطلحات المقدمة في التحليل الوزني التحليل الإحصائي للبيانات التي رفضت البيانات - طرق تحديد الأمطار عامل الجاذبية. - 4بدأ والقواعد شرح معنى مفهومها والنظريات المتاحة التي تم الحصول عليها لوصف سلوكها - 5الاتزان الكيميائي يشير إلى حالة النظام الذي لا يتغير فيه تركيز المتفاعل وتركيز النواتج بحلول الوقت، ولا يظهر النظام أي تغير آخر في الخواص. - 6التوازن الأيوني يسمى التوازن الذي ينشأ بين جزيئي النقابة والأيونات في محلول الشوارد الضعيفة بتوازن الأيوني - 7محلول عازل يصف حمضاً أو محلول ماليا قاعديا يتكون من خليط من حمض ضعيف وقاعدته المرافقة ، أو العكس.

	8 - التحليل الحجمي هو طريقة تحليلية كمية تستخدم على نطاق واسع. كما يوحي الاسم، تتضمن هذه الطريقة قياس حجم محلول يعرف تركيزه ويطبق لتحديد انتباه المادة المراد تحليلها.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	- 7th Edition of Analytical Chemistry - Fundamentals of Analytical Chemistry - Principles and Practice of Analytical Chemistry	yes
Recommended Texts	- Modern Analytical Chemistry	yes
Websites	https://techchemistrydocs.com/Books/Analytical-Chemistry-by-Gary-D	

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.

COURSE SCHEDULE: -

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي النظري	
	Material Covered
Week 1	نطاق الكيمياء التحليلية.
Week 2	التحليل الكمي.
Week 3	التحليل النوعي
Week 4	الأحماض والقواعد.
Week 5	نظريات الأحماض والقواعد.
Week 6	التوازن الكيميائي.
Week 7	التوازن الأيوني
Week 8	الحل العازل.
Week 9	مقدمة في طرق التحليل الحجمي.
Week 10	الحسابات الحجمية
Week 11	معايرة القاعدة الحمضية.
Week 12	معايرة الترسيب.
Week 13	معايرة الأكسدة المختزلة.
Week 14	معايرة الأكسدة المختزلة.
Week 15	الامتحان النهائي

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	سلامة المختبر والتعرف على الأواني الزجاجية وأماكن في مختبر الكيمياء التحليلية
Week 2	التجربة1: تحضير 0.1 متر من محلول حمض الهيدروكلوريك
Week 3	التجربة 2: تحضير 0.1 متر من مسحوق كلوريد الصوديوم
Week 4	التجربة 3: تحضير 0.1 نيوتن من مسحوق هيدروكسيد الصوديوم.
Week 5	مناقشة التقرير التجربتين 1 و 2

Week 6	مناقشة النتائج التجربة 3
Week 7	**التجربة 4: ترسيب العناصر الكيتونية (أبونات Ag و Cu وPb)**
Week 8	التجربة5: ترسيب العناصر الآنيون (Cl وBr)
Week 9	**مناقشة للتجربة 4**
Week 10	مناقشة للتجربة 5
Week 11	التجربة 6: معايرة حمض قوي بقاعدة قوية
Week 12	تجربة7 معايرة هيدروكسيد الصوديوم بحمض الهيدروكلوريك معايرة حمض قوي إلى قاعدة ضعيفة
Week 13	مناقشة للتجارب 6
Week 14	مناقشة للتجارب 7
Week 15	الامتحان النهائي

Learning Outcomes and Assessment Methods for "Analytical Chemistry" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I التحليل الكمي.	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II:التحليل النوعي	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III:التوازن الكيميائي.	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: -التوازن الأيوني	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V:الحل العازل.	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI:الحسابات الحجمية	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.

Topic VII: معايرة الأكسدة المختزلة.	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	)5% (5	Continuous	
	Seminar	1	)5% (5		
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

"COURSE PORTFOLIO"

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

Module Information معلومات المادة الدراسية					
Module Title	**Theoretical Biosecurity and Biosecurity**			**Module Delivery**	
Module Type	**Basic**			☐ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	**Bio1217**				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	**1**		**Semester**	**2**	
Department	**Biology**		**College**	**College of science**	
Module Leader	أ.م.د. ضرغام علي عباس		**E-mail**	dhurgham-ali@science.uoqasim.edu.iq	
Module Leader's Acad. Title	**Ass.Prof.**		**Module Leader's Qualification**	**Ph.D.**	
Module Tutor	**Name (if available)**		**e-mail**	**E-mail**	
Peer Reviewer Name	**Name**		**e-mail**	**E-mail**	
Scientific Committee Approval Date	**01/06/2023**		**Version Number**	**1.0**	

Student Workload (SWL):Structured SWL (h/w) (Two contact hours of lectures) +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
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	92	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules: -

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:	To protect human health and to increase and protect agricultural produce through the prevention, control and management of biological risk factors. Biosecurity also aims to protect against acts of bioterrorism and to prevent adverse biosecurity events as well as offering advice on appropriate interventions and political and social changes that should be adopted by government regulatory agencies.
Module Aims أهداف المادة الدراسية	To enhance national ability to protect human health, agricultural production systems, and the people and industries that depend on them.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The intended subject specific learning outcomes. On successfully completing the module students will be recognize on the : 1- Biosecurity in laboratories 2- Laboratory Risks 3- Biosecurity hazards 4- factors influencing biosecurity 5- Applied biosecurity in practice 6- Elements of a Strong Biosecurity Program
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. - Laboratory Biosafety and Biosecurity Manual Fourth Edition

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	- Laboratory Biosafety and Biosecurity Manual Fourth Edition	yes
Recommended Texts	- Laboratory Biosafety and Biosecurity Manual Fourth Edition - Neutralization and Disposal of Laboratory Scale Toxic	Yes

	Chemicals.	
Websites	https://creativecommons.org/licenses/by-nc-sa/3.0/igo	

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.

COURSE SCHEDULE: -

Week	hours	Topics Covered	Learning Outcomes
		***Topic I:* What is Biosecurity?**	
1	2	– What is Biosecurity – History of Biosecurity	1, 2, 3, 6, and9
		***Topic II: -* Differentiating between biosafety and biosecurity**	
2-3	4	– BIOSAFETY – BIOSECURITY – Goals of Biosecurity – Some factors influencing biosecurity – What are the Biosecurity hazards?	3, 4, 5, and 9
		***Topic III: -* Biosecurity in laboratories**	
4-5	4	– Biosecurity in laboratories – The two major biological threats that are faced in biosecurity include: – Laboratory Risks	3, 4, 5,and 9

		Topic IV: - **Biosecurity risks**	
6	2	– Biosecurity risks – Category A – Category B – Category C	1, 3, 4, 8and 8
		Topic V: **Laboratory biosecurity program**	
7	2	– Laboratory biosecurity program – Responsibility for VBM (Valuable Biological Material)	3, 8, and 9
		Topic VI: - **Elements of a Strong Biosecurity Program**	
8	2	– Elements of a Strong Biosecurity Program – The Virtual Biosecurity Center (VBC)	3, 8,9 and 10
		Topic VII:- Participating Organizations	
9-12	8	– Participating Organizations – Participating Organizations: – Developing a Biosecurity Program – A Biosecurity Risk Assessment and Management Process – Risk analysis of specific security scenarios – Applied biosecurity in practice – Employee accountability – Material control	4, 10and 11
		Topic VIII:- Physical security	
13-14	4	– Physical security – Information security – Transfer and transport security	
		Final Exam	

Learning Outcomes and Assessment Methods for " Theoretical Biosecurity and Biosecurity " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: **What is Biosecurity**	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.

– ***Topic II: - Differentiating between biosafety and biosecurity***	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
– ***Topic III: - Biosecurity in laboratories***	3, 4, 5, 6and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
– ***Topic IV: - Biosecurity risks***	3, 4, 5, 6,9and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
– ***Topic V: Laboratory biosecurity program***	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
– ***Topic VI: - Elements of a Strong Biosecurity Program***	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
– ***Topic VII:- Participating Organizations***	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.
– ***Topic VIII:- Physical security***	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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	5% (5)	Continuous	
	Seminar	1	5% (5)		
	Field Visits Report				
	Discussions				

	During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

MODULE DESCRIPTION FORM

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

نموذج وصف المادة الدراسية

Module Information

معلومات المادة الدراسية

Module Title	الاحصاء الحياتي		**Module Delivery**
Module Type	Basic		**Theory** ✓ **Lecture** ☐ **Lab** ✓ **Tutorial** ☐ **Practical** **Seminar**
Module Code	Bio1209		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	UG	**Semester of Delivery**	2
Administering Department	Biology	**College**	College of science
Module Leader	Maryam sabbeh ali	**e-mail**	maryam_sabbeh@science.uoqasim.edu.iq
Module Leader's Acad. Title	مدرس	**Module Leader's Qualification**	
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	1- تعريف الطالب بأهمية الاحصاء الحيوي

أهداف المادة الدراسية	2- تدريب الطالب على الاختبارات الاحصائية في المجال الحيوي 3- دراسة اهم اساليب جمع البيانات الصحية وكيفية تحليلها 4- تدريب الطالب على كيفية تفريغ البيانات بشكل جداول 5- تمكين الطالب من التمثيل البياني للبيانات الاحصائية الكمية او الوصفية 6- التركيز على كيفية التوزيع التكراري للبيانات 7- معرفة مقاييس النزعة المركزية وانواع هذه المقاييس 8 – التدريب علىتطبيقات الحقيبة الاحصائية
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**1- تعريف الطالب بالعلاقة بين الاحصاء والعلوم الاخرى** **2-أن يستطع الطالب التعامل مع العمليات الاحصائية والنتائج** **3- قدرة الطالب علي اجراء الاستنتاجات وتقييم النتائج** **4- يتعلم الطالب طرق تنفيذ خطة اخصائية والوصول الي نتائج ذات قيمة متغيرية مفيدة للتجربة ككل** **5- أن يستطع الطالب فهم أمثلة لأنواع مختلفة من البيانات افي الصحة العامة والدراسات السريرية** **6- أن يستطيع الطالب علي تفسير الاختلافات في توزيع البيانات من خلال الجداول أو المخططات**
Indicative Contents المحتويات الإرشادية	In theory #1-#5 they will need (25hr). In theory lab #7- #13 they will need (10hr). In theory lab #15 they will need (5hr).

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	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	77	**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**	3	10	4	#4
	Assignments	2	10	13 and 14	#1 and #12
	Tutorial/ Seminar	1	10	continuous	all
	Report				
Summative assessment	**Midterm Exam**	2h	10	7	#1-#6, #8-#14
	Final Exam	3h	50	16	all
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	المقدمة في الاحصاء
Week 2	تعريف الاحصاء
Week 3	علاقة الاحصاء بالعلوم الاخرى
Week 4	جمع البيانات
Week 5	مصادر البيانات
Week 6	الاستمارة الاحصائية
Week 7	عرض البيانات
Week 8	العرض الجدول للبيانات
Week 9	التوزيع التكراري
Week 10	Mid exam
Week 11	العرض الهندسي للبيانات
Week 12	مقاييس النزعة المركزية
Week 13	مقاييس التشتت
Week 14	الارتباط والانحدار
Week 15	مبادئ الاحتمالات
Week 16	تطبيقات الحقيبة الاحصائية(SPSS)

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	**حساب التفاضل والتكامل تأليف د.علي عزيز علي –جامعة الموصل** **الاحصاء تأليف محمود حسن المشهداني واامير حنا - جامعة بغداد**	
Recommended Texts	**مبادئ الاساليب الأحصائية تأليف د ٠ عبد العزيز فهمي هيكل ١٩٦٦ – دار النهضة العربية-** **بيروت**	
Websites	related scientific papers, https://www.researchgate.net/publication/289980213	

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 Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية					
Module Title	**English Language**			**Module Delivery**	
Module Type	**Basic**			☐ **Theory** ✓ **Lecture** ☐ **Tutorial** ☐ **Practical** **Seminar**	**Lab**
Module Code	**Bio12010**				
ECTS Credits	2				
SWL (hr/sem)	**50**				
Module Level	**1**		**Semester**	**2**	
Department	**Biology**		**College**	**College of science**	
Module Leader	**م. ناظم طهيلي سالم**		**E-mail**		
Module Leader's Acad. Title	**مدرس**		**Module Leader's Qualification**		
Module Tutor	**Name (if available)**		**e-mail**	**E-mail**	
Peer Reviewer Name	**Name**		**e-mail**	**E-mail**	
Scientific Committee Approval Date	**01/06/2023**		**Version Number**	**1.0**	

Student Workload (SWL): Structured SWL (h/w) (Two contact hours of lectures) + 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
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Relation with other Modules:-

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:	
Module Aims أهداف المادة الدراسية	New Headway Beginner Plus is a Beginner course in English intended to provide students with the fundamentals of the language and a foundation at First Year students / college of science, moving towards a higher level of proficiency at this stage. 1. Listening Objectives: Understand and respond to basic greetings, introductions, and simple instructions. Comprehend and extract information from short, simple spoken passages related to everyday topics. Identify and understand common vocabulary and expressions in spoken English. 2. Speaking Objectives: Engage in basic conversations using simple greetings, introductions, and expressions related to personal information. Ask and answer simple questions about personal details, daily routines, and familiar topics. Participate in short dialogues and role-plays to practice communication skills. 3. Reading Objectives: Read and comprehend simple texts, such as signs, labels, short passages, and dialogues. Recognize and understand basic vocabulary words and phrases in context. Extract information from texts related to everyday situations and topics. 4. Writing Objectives: Write short sentences and paragraphs about personal information, experiences, and familiar topics. Fill out basic forms with personal details, such as name, age, and

	nationality. - Write simple messages, notes, and emails related to everyday situations. 5. Vocabulary and Grammar Objectives: - Acquire a basic vocabulary related to common topics, such as greetings, numbers, time, family, food, and everyday objects. - Understand and use basic grammatical structures, including present simple, present continuous, simple past, and basic question forms. - Recognize and use common prepositions, articles, and basic sentence structures. 6. Cultural Awareness Objectives: - Develop an understanding of cultural customs and practices related to greetings, social norms, and everyday interactions in English-speaking countries. - Gain exposure to cultural elements through reading or listening to texts about customs, traditions, and holidays.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	By the end of the course, the students will be able to: 1. Listening and Speaking Skills: - Understand and respond appropriately to basic questions and statements. - Engage in simple conversations related to personal information, daily routines, and immediate surroundings. - Follow simple instructions and directions. - Develop basic pronunciation and intonation skills. 2. Reading Skills: - Recognize and understand basic vocabulary words and phrases in simple texts. - Comprehend and extract information from short, simple texts such as signs, notices, and labels. - Understand basic sentence structures and common grammatical patterns. 3. Writing Skills: - Write simple sentences and short paragraphs about personal information, experiences, and familiar topics. - Fill out simple forms and write basic personal information. - Write simple messages, notes, and emails related to everyday situations. 4. Vocabulary and Grammar: - Acquire and use a basic range of vocabulary related to everyday topics, such as greetings, numbers, time, family, food, and common objects. - Understand and use basic grammatical structures, including present simple, present continuous, simple past, and basic question forms. - Recognize and use common prepositions, articles, and basic sentence structures. 5. Cultural Awareness: - Develop an understanding of cultural customs and practices related to

	greetings, social norms, and everyday interactions in English-speaking countries. Gain exposure to cultural elements through reading or listening to texts about customs, traditions, and holidays.
Indicative Contents المحتويات الإرشادية	. Use simple forms of polite expressions to establish basic social contact and 1 to perform everyday functions including making requests and offers, conducting simple phone conversations, asking and telling time, giving simple directions, asking about price, ordering a meal, etc. . Use a narrow range of positive and negative adjectives to describe objects, 2 people and places. . Exchange information by forming and responding to simple questions. 2.3 . Produce simple sentences using the correct word order and punctuation 3 marks. . Use capital and lower case letters accurately in writing. 4 . Construct a short guided paragraph on a familiar topic concerning home, 5 family, friends and holidays. . Use the basic tenses including the present and past simple, and present 5 continuous correctly. . Use the basic auxiliary verbs (am/is/are/was/were/can) and a range of regular 6 and irregular verbs. . Demonstrate awareness of the essential grammatical features and functions 7 including questions and negatives, plural nouns, frequency adverbs, possessives, pronouns and determiners.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	- Soars, John and Liz, (2011), New Headway Plus, Special Edition, Beginner Level, Oxford University Press	yes
Recommended Texts	- New Headway Plus provides an integrated skills course with each unit divided into grammar, vocabulary, skills work and everyday English segments	yes
Websites	Oxford University Press: The New Headway series is published by Oxford University Press. and search for "New Headway Plus, Special Edition, www.oup.com Visit their website at Beginner Level " or browse their English language teaching section for information on the course	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group	**A –** Excellent	امتياز	90 - 100	Outstanding Performance

(50 - 100)	**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	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
(0 – 49)	**F –** Fail	راسب	(0-44)	Considerable amount of work required

Note: 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: -

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	greeting and introducing persons
Week 2	subject pronouns (he/ he/they) and possessive pronouns (his/ her…) jobs / negatives and questions
Week 3	subject pronouns(he/ he/they) and possessive pronouns (his/ her…) jobs / negatives and questions
Week 4	possessive pronouns(our / their)
Week 5	Present simple with (I / you / they / we) Sports / food / drinks and numbers -Present simple with (he / she) adverbs: always…sometimes Time and days of the week
Week 6	Present simple with (I / you / they / we) Sports / food / drinks and numbers -Present simple with (he / she) adverbs: always…sometimes Time and days of the week
Week 7	-Questions with present simple and object pronouns -there is / there are / preposition
Week 8	-Questions with present simple and object pronouns -there is / there are / preposition
Week 9	Elements of a Strong Biosecurity Program
Week 10	Past simple regular and irregular verbs Questions and negatives. -can / can't / adverbs / adjectives / noun
Week 11	Past simple regular and irregular verbs

	Questions and negatives. -can / can't / adverbs / adjectives / noun
Week 12	-some and any -present continuous Colors' and clothes -future plans
Week 13	-some and any -present continuous color's and clothes -future plans
Week 14	-some and any -present continuous colors' and clothes -future plans
Week 15	Final Exam

Learning Outcomes and Assessment Methods for "English Language" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: subject pronouns(he/ he/they) and possessive pronouns (his/ her…) jobs / negatives and questions	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
possessive ال***Topic II:*** pronouns(our / their)	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: Present simple with (I / you / they / we)	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: - Elements of a Strong Biosecurity Program	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Past simple ا***Topic V:*** regular and irregular verbs Questions and negatives. -can / can't / adverbs / adjectives / noun	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
-some and any ***Topic VI*** -present continuous colors' and clothes	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small	Seminars, quizzes, Major reports, Written Exams,

-future plans		Group Discussions, Scientific Films, and, Exploratory Work Teams.	Home work, oral exams.

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.				
	Seminar				
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	Midterm Exam (10%)	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

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	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	)5% (5	Continuous	
	Seminar	1	)5% (5		
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	Midterm Exam (10%)	2 hr	10% (10)	8	LO # 1-10

	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية			
Module Title	**Computer**	**Module Delivery**	
Module Type	**Basic**	☐ **Theory** ✓**Lecture** ✓**Lab** ☐ **Tutorial** ☐ **Practical** **Seminar**	
Module Code	**Bio12011**		
ECTS Credits	**3**		
SWL (hr/sem)	**75**		
Module Level	**1**	**Semester**	**2**
Department	**Biology**	**College**	**College of science**
Module Leader	**م. بتول عبد الهادي سلطان**	**E-mail**	Batool@uoqasim.edu.iq
Module Leader's Acad. Title	**مدرس**	**Module Leader's Qualification**	
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**
Scientific Committee Approval Date	**01/06/2023**	**Version Number**	**1.0**

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	12	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Relation with other Modules:-

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:	
Module Aims أهداف المادة الدراسية	1. This module sets out essential concepts and skills relating to the use of devices. 2. This module covers the key skills and main concepts relating to computers, devices, file creation and management, web browsing, and data security. 3. Help students to demonstrate the ability to use word processing 4. application to accomplish everyday tasks associated with creating, formatting, finishing small-sized word processing documents, such as letters and other everyday documents. 5. Help students to demonstrate the ability to use a power point application to accomplish tasks associated with creating, and formatting a presentation. 6. Help students to demonstrate the ability to use Excel application to accomplish a spreadsheet for tasks.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Upon successful completion of the course, a student will be able to: 1. Understand 1. key concepts relating to computers, devices and software. 2. Identify the main types of Integrated and External equipment 3. Understand concepts of online communities, communications and e mail 4. Adjust the main operating system settings and use built-in help features. 5. Know about the main concepts of file management and be able to efficiently organize files and folders. 6. Create a report by Ms. Word document and print an output. 7. Use University email to Collaborate inside and outside university and How to participate in video conference using meet 8. Create a presentation using power point application. 9. Create a spreadsheet using Excel application.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: - The general-purpose computer model: All types of computers follow the same structure and perform the basic operations (Input, Processing, Output, Storage and controlling) to converting raw input (data) to information. - Components of a computer Hardware: Each computer consists of Hardware and software. The Hardware includes input devices, output devices, system units, storage devices, and communication devices. - System Units (Internal & External components of system units): The internal component of the system units is consisting of (CPU, Motherboard, RAM, Ports, Hard

	disk …). - Central Processing Unit: ALU, CU, and memory unit. Memory and its Types Cache Memory Primary memory –Comparison between RAM & ROM Secondary Storage - Ports and their types (Ports: is a connection points used as an interface between the computer and its peripheral devices (Serial ports, Parallel ports, PS/2, USB, VGA …)). - Input Devices (Keyboard, Mouse, …) - Output Devices (Printer, speaker, monitors, …) - Software Types of Software Operating System (Windows, Linux, …) Application Software & their types Programming Languages (Low, Assembly, High level). - Internet, Benefits, Browsing the Web (Web Browser) , Search the web (search engine) - Communication Technology: It plays an important role in almost every activity that we performed. The best examples of Communication technology includes: blogs, Web sites, live video, social media technology, and E-mail communication. - E-mail: free e-mail providers (G-mail, Yahoo-mail, …), send and receive E mail operation, send e-mail with attachment, checking the e-mail boxes (inbox, send box, spam …). - Security and keeping information safe: protect the information from unauthorized access and prevent use, modification, and destruction of this information. - Virus transmission ways to the computer: by e-mail, Downloading from the Internet, Pirated software, Exchange of diskettes, in attached e-mail, and in documents. - Protection against viruses: install good anti-viruses. - Antivirus, benefits and Types Introduction to windows - Desktop Components: (Icons, Start, task bar …) - The start menu (its functions and properties)

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1. M. E. Vermaat and G. B. Shelly, Discovering Computers Fundamentals: Living in a Digital World, Shelly Cashman, 2011 Edition. 2. J. Lambert, J. Cox , and C. Frye, Microsoft Office Professional 2010 Step by Step , 1'st Edition, Microsoft Press, 2010, 152P.	yes

Recommended Texts	D. Hajek and C. Herrera, Introduction to Computers 2022 Edition, Independently published, May 19, 2022, 255P.	yes
Websites	1. https://www.tutorialspoint.com/computer_fundamentals/index.htm 2. https://www.slideshare.net/Jamjolojessa/types-ofapplicationsoftware?from_action=sav 3. https://edu.gcfglobal.org/en/excel2010/#	

Grading Scheme
مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	**A –** Excellent	امتياز	90 - 100	Outstanding Performance
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	F – Fail	راسب	(0-44)	Considerable amount of work required

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COURSE SCHEDULE: -

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to Computers – definition -The purposes of using a computer. -The general-purpose computer models. -The difference between Data and Information concepts. Introduction to windows - Desktop Components - The start menu (its functions and properties)
Week 2	The Components of a computer: Hardware - System Units (Internal & External components of system units) - Central Processing Unit (Features and components) Windows:

	- Task bar and its functions and property
Week 3	- Memory and its Types Cache Memory Primary memory –Comparison between RAM & ROM
Week 4	Secondary Storage Windows: - Files and Folders: All operations on files and folders (selection, creation, saving, moving and renaming.
Week 5	Ports and their types - Input Devices, - Output Devices Windows: - Delete Files. - Recycle bin. - Creating a Shortcut. - Desktop Icons. - The Windows Explorer Views. - Sort files.
Week 6	- Software Types of Software Operating System Application Software & their types Programming Languages Windows: -Customizing the desktop. -Change screen resolution. - Change Desktop Background
Week 7	- Communication Technology - E-mail Windows: - Print Screen - Cleaning Up the Disk - Defragmenting the Disk Quiz (1, 2, 3, 4, 5) -Windows only
Week 8	- Internet, Browsing the Web (Web Browser) , Search the web (search engine) - Security and keeping information safe -Virus transmission ways to the computer -Protection against viruses -Antivirus, benefits and Types
Week 9	Microsoft Word - Word Program Interface -Keyboard Shortcuts in Microsoft Word -The operations on Text
Week 10	Microsoft Word - Home Tab & it commands - Insert Tab (Pages & tables Groups) - Table Tools
Week 11	Microsoft Word - Insert Tab (Illustrations, Header & Footer, Text and Symbols Groups)

	- Page Layout, References, Review Tabs Quiz (Week 8, 9)
Week 12	Microsoft PowerPoint - PowerPoint program Interface. - File Menu - Home Tab & it commands - Operations on the Slides (duplicate, Delete, and Move)
Week 13	Microsoft PowerPoint - Insert Tab, Design Tab, Slide Show Tab and their commands - Transitions, and Animations Tabs
Week 14	Microsoft Excel - File Menu, Home Tab & it commands - Excel Worksheet Basics - Cell format
Week 15	Final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	General introduction to the program word.
Week 2	The main interface of the Word program
Week 3	Formatting texts and paragraphs in a program in Word
Week 4	Use Microsoft Word application processing 2010
Week 5	Main text word art
Week 6	Ways to create a blank presentation
Week 7	**Design tab**
Week 8	Working with slides
Week 9	**Create series**
Week 10	General settings for PowerPoint.
Week 11	Create a function
Week 12	Print settings

Week 13	Object management
Week 14	Data management
Week 15	Examination

Learning Outcomes and Assessment Methods for " Computer " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I The Components of a computer: Hardware	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II: Secondary Storage Windows:	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: Ports and their types	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: - - Types of Software	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: Communication Technology	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI*:* Microsoft Word	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII**:** Microsoft Excel Microsoft PowerPoint .	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

Module Evaluation:

Module Evaluation تقييم المادة الدراسية				
	Time/Nu	**Weight (Marks)**	**Week Due**	**Relevant Learning**

		mber			Outcome
Formative assessment (40%)	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	)5% (5	Continuous	
	Seminar				
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	Midterm Exam (10%)	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية			
Module Title	Plant Groups	**Module Delivery**	
Module Type	Core	☐ Theory ✓Lecture ✓Lab ☐ Tutorial ☐ Practical ✓Seminar	
Module Code	Bio23016		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	2	**Semester**	3
Department	Biology	**College**	College of science
Module Leader	م.م. صفا ناظم مضنون	**E-mail**	safa.nathem@gmail.com
Module Leader's Acad. Title	Assistant Lecturer	**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	01/06/2024	**Version Number**	1.0

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules: -

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:	
Module Aims أهداف المادة الدراسية	أ- التعرف على انواع المجاميع النباتية وتمييزها ب. ان يصبح الطالب قادر على التمييز بين الانواع المختلفة ومكونات خلايا كل نوع ج. امكانية تشخيص الاختلافات والتغيرات التي تحدث للمجاميع النباتية المختلفة د. التعرف على اهمية الطحالب ودورها في مختلف الجوانب الاقتصادية والطبية والصناعية
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- معرفة المصطلحات المستخدمة في علم النبات 2 - عزل وتشخيص الانواع المختلفة من النباتات حسب درجة التطور 3- طرق تغذية مختلف المجاميع النباتية (الطحالب ،السرخسيات ،الحزازيات) ونموها وحاجاتها الغذائية 4- معرفة اصنافها 5- معرفة ودراسة تكاثرها الجنسي واللاجنسي وطرق انتاجها للسبورات 6- التعرف على ابرز الفروقات بين المجاميع الطحلبية المختلفة
Indicative Contents المحتويات الإرشادية	1 - امكانية تمييز الانواع المختلف للمجاميع النباتية 2 - امكانية الطلبة في عزل الطحالب من اماكن تواجدها 3 - اكتساب الطالب القدرة على تصنيف ومعرفة انواع المجاميع النباتية 4- اكتساب الطالب القدرة على استخدام الأجهزة والمواد المختبرية لغرض العزل والتشخيص

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	- الطحالب والاركيكيونات .1990. بهرام خضر مولود ؛ نضال ادريس سليمان؛ ابراهيم توفيق البصام . - الطحالب في العراق بيئتها وتصنيفها.2017.احمد عيدان الحسيني - كتاب الطحالب العملي .2018.احمد محسن عذبي .جامعة البصرة -	yes
Recommended Texts	- - Allan, P. (1984). Introduction to the freshwater algae. The Richmond Publishing Co. Ltd. Ochard Road, Richmond, Survey, England. - - Al-Kandari, M.; Al-Yamani, F. and Al-Rifaie, k. (2009). Marine phytoplankton atlas of Kuwait's waters. Kuwait Institute for Scientific Research, P.O. Box, 2488, 13109, Kuwait.	yes

	- - Robert, E. L. (2008). Phycology. Cambridge University Press. Cmbridge, New York, Melbourne, Madrid, Cape Town, Singapore, Sao Paulo. - - Edward, G. B. and David, c. s. (2010). Fresh water algae. The Atrium, South Gate. Chichester. West Sussex. PO1985O2.UK.	
Websites	https://www.britannica.com - Freshwater Algae of North America (Second dition)Ecology and Classification - Aquatic Ecology 2015, Pages 459-483 https://www.vcbio.science.ru.nl/en/virtuallessons/redalgae -	

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.

COURSE SCHEDULE: -

Delivery Plan (Weekly. Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	تصنيف المجاميع النباتية
Week 2	الطحالب الخضراء المزرقة
Week 3	الطحالب الخضراء المزرقة
Week 4	الطحالب الخضراء
Week 5	الطحالب الخضراء
Week 6	الطحالب اليوغلينية
Week 7	الطحالب الذهبية
Week 8	الطحالب البنية

Week 9	الطحالب البايروية
Week 10	الطحالب الحمراء
Week 11	الحزازيات
Week 12	السرخسيات
Week 13	البذريات
Week 14	البذريات
Week 15	امتحان نهائي

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Microscope
Week 2	The prokaryotic Algae
Week 3	The prokaryotic Algae
Week 4	Eukaryote green algae
Week 5	Protista: chlorophyte *Ulothrix*
Week 6	*Spirogyra* Protista: chlorophyte *Cladophora*
Week 7	**green algae (Charophyceae), dinoflagellate**
Week 8	Rhodophyta (Red algae)
Week 9	***Rhodophyta (Red algae)***
Week 10	Phaeophyta (Brown Algae)
Week 11	Examination
Week 12	
Week 13	
Week 14	
Week 15	

Learning Outcomes and Assessment Methods for "Plant Groups" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: تصنيف المجاميع النباتية	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific	quizzes, Major reports, discussions during lectures,

		Films, Exploratory Work Teams.	Written Exams, oral exam.
Topic الطحالب الخضراء المزرقة	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: الطحالب اليوغلينية	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: - الطحالب الذهبية	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: الطحالب الحمراء	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: السرخسيات	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
***Topic VII*:** البذريات	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	)5% (5	Continuous	
	Seminar	1	)5% (5		
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية					
Module Title	**Invertebrates**			**Module Delivery**	
Module Type	**Core**			**Theory** **✓ Lecture** **✓ Lab** **☐ Tutorial** **☐ Practical** **✓ Seminar**	
Module Code	**Bio23015**				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	**2**		**Semester**	**3**	
Department	**Biological**	**College**	**College of Science**		
Module Leader	**Sura Abdualkhaleq Ameen**	**E-mail**	**suraaawadh@science.uoqasim.edu.iq**		
Module Leader's Acad. Title	**lecturer**	**Module Leader's Qualification**	**Ph.D.**		
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**		
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**		
Scientific Committee Approval Date		**Version Number**			

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules:-

Relation with other Modules العلاقة مع المواد الدراسية الأخرى

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

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:	This course aims to give the student basic information and knowledge in invertebrate science, as it deals with the study of invertebrate animals with their groups, their different taxonomic, structural and biological characteristics, and their diverse and different environments depending on the group. The course is also concerned with giving an overview of the life cycles of examples of invertebrate animals and their interaction with their environment. This course is also concerned with the laboratory study of invertebrate organisms in a way that complements and supports theoretical information.
Module Aims أهداف المادة الدراسية	This study aims to give a complete idea about invertebrates, their importance, harms, and benefits. As well as its classification, developmental relationships and phylum. As well as a detailed study of important invertebrates
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After completing the course, the student will be able to: 1- Reviews the basic scientific concepts and knowledge in invertebrate science 2- Explains the taxonomic, morphological, structural and biological characteristics of invertebrate animals 3- Explains the relationship between the structural structure of invertebrate animals and the characteristics of the surrounding environment in which they inhabit 4- It explains the relationships that exist between invertebrate animals and between them and their environment, and explains the results of these relationships 5- Analyzes changes in the surrounding environment related to invertebrate animals based on a health scientific background 6- Learn about the morphological and taxonomic characteristics of invertebrate animals in the laboratory 7- He employs the scientific and laboratory skills and knowledge he acquired during his study of this science in positive interaction with the surrounding environment. 8- He raises awareness in his community about invertebrate animals and their impact on the environment and creatures around them
Indicative Contents المحتويات الإرشادية	Vidyarthi, R. D. (1984): Zoology. S. CHAND & COMPANY LTD. New Delhi

Learning and Teaching Resources

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	محمد اسماعيل محمد، بشاي حلمي ميخائيل، العاصي يحيى السعيد، علي منى شرقاوي، حسن تغريد عبد الرحمن (2002) : اساسيات علم الحيوان. دار الفكر العربي. جمهورية مصر العربية	No
Recommended Texts	الحسيني احمد حماد، دميان اميل شنوده (1994): علم الحيوان. دار المعارف. جمهورية مصر العربية	No
Websites	https://www.microscopemaster.com/nematodes.html https://microbiologynotes.com/general-characteristics-and-classification-of Arthropoda https://microbenotes.com/phylum-mollusca/	

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.

COURSE SCHEDULE:-

Week	Hours	Topics Covered	Learning Outcomes
1-2	4	– Invertebrate groups, principles of taxonomy – large phylum's	1-2

3-4	4	– classification and the shape of protozoa – classification and Sarcodina	1-3
5-6	4	– Mastigophora and Ciliophora – Phylum Porifera	3-6
7-8	4	– A brief overview of Phylum Cnidaria – Flatworms	2-3
9-10	4	– Aschelminthes – Phylum Rotifera and classification	1-8
11-12	4	– Phylum Annelida – Phylum Arthropoda	1-7
13-14	4	– Phylum Gnathostomata – Phylum: Mollusca	
15	2	- phylum chordate and Evolutionary relationships	
Final Exam			

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Phylum : Protozoa
Week 2	Lab 2: Classification and sarcodina
Week 3	Lab 3: Mastigophora and ciliophora
Week 4	Lab 4: Phylum : porifera
Week 5	Lab 5: Classification and shape of protozoa
Week 6	Lab 6: Brief overview of the Cnidaria phylum

Week 7	Lab 7: Examples of Cnidaria phylum
Week 8	Lab 8: Exam
Week 9	Lab 9: Flatworms
Week 10	Lab 10: Phylum : Annelida
Week 11	Lab 11: Phylum : Arthropoda
Week 12	Lab 12: Examples of Arthropoda
Week 13	Lab 13: Phylum : Gnathostomata
Week 14	Lab 14: Mollusca and Evolutionary relationships
Week 15	Lab 15: Phylum : Echinodermata

Learning Outcomes and Assessment Methods for " Invertebrates " Course.

Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
1	Interactive lecture, Small Group Discussions, Simulations and scientific demonstrations, Concept map	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
2	Brainstorming, Problem solving, Interactive lecture, Small Group Discussions, Self-learning	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
3	Interactive lecture, Small Group Discussions, Simulations and scientific demonstrations, Concept map, Brainstorming, Problem solving,	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
4	Interactive lecture, Small Group Discussions, Simulations and scientific demonstrations, Concept map, Brainstorming, Problem solving, Cooperative learning	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
5	Interactive lecture, Small Group Discussions, Simulations and scientific demonstrations, Concept map, Brainstorming, Problem solving, Cooperative learning	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
6	Practical application, self-learning, cooperative learning, and exchange of experiences among colleagues	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
7-8	Interactive lecture, Small Group Discussions, Simulations and scientific demonstrations, Concept map, Brainstorming, Problem solving, Cooperative learning	quizzes, discussions during lectures. Written Exams, Home work.

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, 3 and 5
	Assignments & H.W.	2	10% (10)	2, 12	LO # 1, 3 and 6
	Projects / Lab.	1	10% (10)	Continuous	
	Seminar	1	10% (10)		
	Field Visits Report	1	10% (10)	10	LO # 3, 6
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # All
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

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"COURSE PORTFOLIO"

Module Information **معلومات المادة الدراسية**					
Module Title	**Microbiology 1**			**Module Delivery**	
Module Type	**Core**			**Theory** **✓ Lecture** **✓ Lab** **☐ Tutorial** **☐ Practical** **✓ Seminar**	
Module Code	**Bio23118**				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	**2**	**Semester**	**3**		
Department	**Biological**	**College**	**College of Science**		
Module Leader	**Zaman Salman Hamza**	**E-mail**	**zamansalman@science.uoqasim.edu.iq**		
Module Leader's Acad. Title	**Assistant Professor**	**Module Leader's Qualification**	**Ph.D.**		
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**		
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**		
Scientific Committee Approval Date		**Version Number**			

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	7.40
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules:-

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:	This course, which is considered an introduction to medical microbiology, aims to introduce students to the basic concepts of microbiology as well as provide the necessary information to understand the subject of basic biological sciences of pathogenic organisms (bacteria, fungi) and understand the mechanism of their spread and pathogenicity. In addition to theoretical information, the department is keen to provide students with laboratory techniques related to microbiology.
Module Aims أهداف المادة الدراسية	**. Course Objectives** The teaching of the Medical Microbiology course aims to provide a set of theoretical and practical concepts that ultimately lead to Introducing and understanding students of microbiology, its scientific division, and the most important common and rare microbial diseases As well as graduating students who are able to: - Work in the field of medical laboratories with theoretical and applied knowledge of microbiology - Obtain the skills required for the post-graduation plan (postgraduate studies). - Submit to external tests by local/regional/international bodies. Or treat it according to local, regional and international standards - Thinking and analytical skills that enable the laboratory diagnosis of bacterial disease-causing agents - Providing students with the skills to work in scientific and research laboratories and study the importance of different types of bacteria that infect humans and animals and their importance and danger - One of the most important goals that the Microbiology Department aspires to achieve in the future is to establish a research unit affiliated with the department to be a scientific and research source for other branches and to work on providing graduate students with information and scientific means to ensure raising the scientific level
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**Course Outcomes, Teaching, Learning and Evaluation Methods** A- Cognitive Objectives A 1- Obtaining basic information on microbiology. A 2- Providing a broad base of knowledge and understanding of microbiology. A 3- Enabling students to obtain knowledge and understanding of the methods used in dealing with microscopic pathogens such as bacteria and fungi and laboratory diagnostic methods in the local reality. A 4- The student uses the appropriate laboratory diagnostic methods for each disease A 5- Enabling students to obtain knowledge and understanding of the methods used in laboratory diagnosis at the international level A6- Introducing the student to laboratory work and applying theoretical information and linking it to the reality of laboratory work and how to apply diagnostic tests and

laboratory examination methods in their various forms.

B- Course specific skill objectives.

B 1 - Practice laboratory techniques and skills in the field of microbiology.

B 2 - Cultivation and diagnosis of common pathogenic microorganisms

B 3 - Handling laboratory materials, sterilization methods and controlling the spread of diseases

B 4- Identifying how to determine treatment, antibiotics and pathogenicity of microorganisms

B 5-Understanding the immune changes associated with infections and knowing the methods of diagnosis and analyzing their results

Teaching and learning methods

 Delivering detailed theoretical lectures according to the curriculum

 Providing students with the basics and additional topics related to the previous educational outcomes of skills, to solve scientific problems

 Asking students during practical laboratories to reach an examination and diagnosis of some bacterial and fungal microscopic causes.

 Diagnosing a group of pathogens by the academic staff

 - Student contribution by actual participation in tests

 Workshops and student groups Project Team.

 - E-learning.

Evaluation methods

 Daily exams with practical and scientific questions.

 Student participation individually or in groups in solving daily questions

 Retaking exams to increase the student's understanding and identify weaknesses to avoid them

 Participation grades for difficult competition questions between students orally.

 Grade homework assignments and reports.

 Participate in students presenting reports to their peers to increase behavioral and emotional skills

 Quarterly exams for the theoretical and practical curriculum in addition to the final exam

C- Emotional and value objectives

C 1- Enabling students to think and analyze topics related to the intellectual framework of microbiology

C 2- Enabling students to think and analyze topics related to the morphological and cultural characteristics of bacteria and fungi
and the different ways of living and feeding.

C 3- Enabling students to think and analyze topics related to diseases resulting from bacterial and fungal pathogens.

C 4- Enabling students to think and analyze how to deal with laboratory samples and bacterial and fungal pathogens and methods of diagnosing them.

Teaching and learning methods

 - Providing students with the basics and topics related to the outputs of thinking and analysis.

 Forming a discussion group through theoretical and practical lectures to discuss the topic presented, which requires thinking, analysis and conclusion..

 Asking students a set of thinking questions during lectures such as (what, how,

	when, and why) specific topics □ Giving students homework that requires different scientific explanations. □ Teaching students how to build thinking and analysis methods. Evaluation methods □ Daily exams with practical and scientific questions. □ Participation grades for difficult competition questions between students. □ Setting grades for homework and reports assigned to them. □ Semester exams for the theoretical and practical curriculum in addition to the final exam D- General and transferable skills (other skills related to employability and personal development). D 1- Enabling students to write reports on topics related to microbiology. D 2- Enabling students to link the occurrence of diseases to health reality and diagnostic methods. D 3- Enabling students to pass medical tests in health laboratory courses. D 4- Enabling students to continue self-development after graduation by learning about the laboratory management mechanism D 5- Holding special seminars for students for the purpose of self-development of their personalities
Indicative Contents المحتويات الإرشادية	The guiding content includes: □ Explain the scope of biology and the molecular basis of life (1). □ Describe life activities from a cellular point of view (2). □ Identify the main features of different groups of organisms (3). □ Explain the scope of tissues, bones and cartilage (8). □ Identify the basic processes of energy transfer and synthesis of intermediate or final products in living cells (4,5). □ Understand the basic concepts of genetics

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
1- Required textbooks	Medical Microbiology	No
2- Main references (sources)	Medical Microbiology\ Jawetz,E.:Melizik,J.L. WAWERREN LEVENSON and Adelberg ,E.A -Fungi Experimental methods in Biology\ J.W.Bennett	No
A- Recommended books and references (scientific journals, reports, etc.)	مكتبة الكلية والتي تحوي مصادر ذات العلاقة Pathogenesis of bacterial infection in animals\Carlton L.Gyles,John.FPresccot -Clinical veterinary microbiology\ P.J.Quinn	No

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

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.

COURSE SCHEDULE:-

Week	hours	Topics Covered	Learning Outcomes
1	2	Introduction to Microbiology	
2	2	Microbiology website in biology	
3	2	Microbial properties	
4	2	Types of microorganisms	
5	2	Bacteria	
6	2	Fungi	
7	2	Parasite	
8	2	Phages	
9	2	Bacterial groups and their characteristics	
10	2	Internal and external structure of bacteria	

11	2	Bacterial nutrition	
12	2	Bacterial growth and reproduction	
13	2	Control of microorganisms by chemical and physical methods	
14	2	Antibiotics	
Final Exam			

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	ارشادات ومقدمه تعريفية
Week 2	أنواع المجاهر
Week 3	تعرف على الأدوات والاجهزة في المختبر
Week 4	التعقيم
Week 5	أنواع الأوساط الزراعية
Week 6	تحضير الأوساط الزراعية
Week 7	شكال وأنواع البكتريا
Week 8	التصبيغ بالصبغة البسيطة
Week 9	صبغة كرام
Week 10	صبغة المقاومة للحامض
Week 11	صبغة السبورات
Week 12	صبغة المحفظة
Week 13	صبغة الاسواط
Week 14	الصبغة السالبة
Week 15	امتحان

Learning Outcomes and Assessment Methods for "Microbiology1" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I- Introduction to Microbiology , Microbiology		Report Writing, Field Visits, Theoretical Lectures, Scientific	quizzes, Major reports, discussions during lectures,

website in biology	1-6	Films, Exploratory Work Teams.	Written Exams, oral exam.
Topic II: - Microbial properties , Types of microorganisms	1-3	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: - Bacteria and Fungi	3-6	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: - Parasite and Phages	2-3	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: - Bacterial groups and their characteristics , Internal and external structure of bacteria	1-6	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: - Bacterial nutrition , Bacterial growth and reproduction	1-6	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
***Topic VII*: - Control of microorganisms by chemical and physical methods , Antibiotics**	2-3	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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, 3 and 5
	Assignments & H.W.	2	10% (10)	2, 12	LO # 1, 3 and 6
	Projects / Lab.	1	10% (10)	Continuous	
	Seminar	1	10% (10)		
	Field Visits Report	1	10% (10)	10	LO # 3, 6
	Discussions During Lectures				

Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # All
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

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Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية					
Module Title	Biochemistry 1			**Module Delivery**	
Module Type	Core			Theory ✓Lecture ✓Lab ☐ Tutorial ☐ Practical ✓Seminar	
Module Code	Bio23117				
ECTS Credits	5				
SWL (hr/sem)	125				
Module Level	2		**Semester**	3	
Department	Biology		**College**	College of science	
Module Leader	أ.م.د. عقيل علاء حسين		**E-mail**	aqeelalaa@science.uoqasim.edu.iq	
Module Leader's Acad. Title	Associate Professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/06/2023		**Version Number**	1.0	

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules:-

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:	Teaching the student how to identify chemical compounds and providing him with sufficient information that enables him to understand the vital activities that take place in the human body at the molecular level, applying them with practical lessons and demonstrating the methods used in diagnosing some diseases.
Module Aims أهداف المادة الدراسية	The main goal of study 1-Understand the basic chemical principles that govern complex biological systems. 2-Teaching the student how to identify and understand the vital activities that take place in the human body at the molecular level. 3- chemical tests used in the diagnosis of some diseases.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The intended subject specific learning outcomes. On successfully completing the module students will be able to: 1-The learning outcomes are designed to help learners understand the objectives of studying B.Sc. Biochemistry that is, to analyse, appreciate, understand the basic concepts of chemical reactions that occur in living systems, which enable them to understand the various perspectives of applied sciences that benefit the mankind. 2-To understand the concepts of preparation of buffers. To estimate biomolecules such as glucose , proteins,cholesterol in clinical samples. To isolate of lipids . 3-Demonstrate an understanding of the principles of the protein structure/folding and an ability to explain their functions in general. -Describe the key principles of static enzyme Biochemistry, enzyme 5 classification and basic principles of enzyme functioning. -Explain the basic principles of the nucleic acid structure and their disparate 5 cellular roles and its practical applications. -Explain the principles of carbohydrate Biochemistry and the biological 6 functions of the carbohydrates. -Demonstrate a knowledge of the principles of lipid classification, structure 7 and functions. -Understand basic mechanisms of static integration of biologically active 8

	compounds into biological membranes. -Demonstrate an ability to link this knowledge to everyday activities in the 9 bioscience workplace. - To become aware with the variations in the levels of trigycerides and 10 lipoproteins and their relationship with various diseases. To get acquainted with the role of enzymes in diagnosis of various diseases. - To estimate biomolecules such as glucose , proteins,cholesterol in clinical 11 samples, and exposure to the mechanisms of causation of diseases of liver and kidney. - Understand : Classification and biological role. Fatty acids – Nomenclature of 21 saturated and unsaturated fatty acids. Physiological properties of fatty acids
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. - Harper's Book, Harper's Book of Biochemistry, Lippincott, eighth edition of Biochemistry .

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	- Harper's Book, Harper's Book of Biochemistry	yes
Recommended Texts	- Lippincott, 8th edition of Biochemistry - Principle of Biochemistry by lehniger.	yes
Websites	https://www.ugc.gov.in/pdfnews/1045687_Biochemistry.pdf	

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
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COURSE SCHEDULE: -

Week	hours	Topics Covered	Learning Outcomes
		Topic I: **Introduction to Carbohydrates**	
1-3	6	• Definition and classification of carbohydrates • Monosaccharides, disaccharides and polysaccharides • Structural features and functional groups of carbohydrates • Stereochemistry of carbohydrates • Ring structures and anomalies • Glycosidic bonds • Definition and classification of polysaccharides • Structural diversity and complexity of polysaccharide molecules • The importance of polysaccharides in biological systems and industrial applications	➢ **Introduction to carbohydrates** ➢ **Structure of carbohydrates and their properties** ➢ **Introduction to polysaccharides**
		Topic II: **- Amino Acids**	
4-7	4	• • Definition and classification of amino acids • • Structural features and properties of amino acids • • The importance of amino acids in biological systems • • Primary, secondary, tertiary and quaternary structures of proteins • • Stereochemistry of amino acids: chirality and optical activity • • Amino acid residues in peptide bonds and protein conformation	• **Introduction to amino acids** • **Amino acid structure and stereochemistry**
		Topic III: **- Peptide and Protein**	
7-13	8	• • Definition and classification of peptides and proteins • Peptide bond formation and peptide synthesis • • Structural hierarchy of proteins: primary structure • • Secondary, tertiary and quaternary structure • • Peptide analysis techniques: mass spectrometry, chromatography, etc. • • Peptide sequencing methods: Edman lysis, mass spectrometry, etc.	• **Introduction to peptides and proteins** • **Amino acid and peptide bond formation** • **Protein structure and folding** • **Protein structure and folding** • **Peptide analysis and sequencing**

		• Applications of peptide analysis in proteins and biomarker discovery • Chemical and enzymatic methods for cleaving and modifying peptide bonds • Chemical and enzymatic methods for peptide modification	

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to clinical biochemistry laboratory & safety measures.
Week 2	Lab 2: Spectrophotometry
Week 3	Lab 3: Estimation of serum amylase
Week 4	Lab 4 Fasting & Postprandial blood sugar
Week 5	Lab 5: Estimation of serum Cholesterol (Total & HDL).
Week 6	Lab 6: Estimation of serum triglycerides.
Week 7	Lab 7: Estimation of serum total protein.
Week 8	Examination
Week 9	
Week 10	

Learning Outcomes and Assessment Methods for "Biochemistry 1" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: **Introduction to Carbohydrates**	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
– ***Topic II:*** **- Amino Acids**	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: **- Amino Acids**	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: **- Peptide and Protein**	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group	Seminars, Major reports, discussions during lectures.

		Discussions, and Scientific Films.	Written Exams, oral exams.
• ***Topic V*** **Protein structure and folding**	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
• ***Topic VI:*** **Protein structure and folding**	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII**: Peptide analysis and sequencing**	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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	)5% (5	Continuous	
	Seminar	1	)5% (5	Continuous	
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية			
Module Title	Plant Anatomy	**Module Delivery**	
Module Type	Core	☐ Theory ✓ Lecture ✓ Lab ☐ Tutorial ☐ Practical ✓ Seminar	
Module Code	Bio23214		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	2	**Semester**	3
Department	Biology	**College**	College of science
Module Leader	أ.م.د. مهند محمد صاحب	**E-mail**	mohanad.sahib@science.uoqasim.edu.iq
Module Leader's Acad. Title	assistant professor	**Module Leader's Qualification**	PhD
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2024	**Version Number**	1.0

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules:-

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:	Parts of plant internal structure for root, shoot & leaf & structural tissue for everyone & theories application on the growth of plants and recognizing how the plant increase in size by secondary growth
Module Aims أهداف المادة الدراسية	**The main goal of study** Explaining the basic principles of plant anatomy tests Explaining the interventions that may occur in different parts of the plant Also explaining the mechanics of the tests and how to handle various types of plant specimens Understanding the importance of the plant and the benefits of dissecting and describing the functions of different tissues Also understanding the interrelationship between plant tissues and their interaction with other forms of life
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Providing the student with sufficient information to gain experience in dealing with life sciences and laboratory techniques. Gaining experience in knowledge of all laboratory equipment and modern techniques. Gaining sufficient information to keep pace with and study modern sciences. Developing the student's ability to recall what they have learned 1- Level One: Developing knowledge about the different parts of the plant and the ways in which they are related, whether by function or location. 2- Level Two: Improving the level of comprehension, developing the ability to interpret, predict, and infer. 3- Level Three: Developing application skills. 4- Level Four: Providing the student with the ability to analyze. 5- Level Five: Developing the student's ability to integrate ideas and information at the level of synthesis, which is the opposite of analysis. Level Six: Evaluation: Developing the student's ability to judge the value of the material learned.
Indicative Contents المحتويات الإرشادية	Application in general fields and research centers. · Application in environmental centers. · Teaching students oral and written communication skills. · Using modern technological tools such as computers, the internet, and specialized scientific programs. Preparing reports, tables, figures, and presentations. Encouraging students to work as part of a team.

	Developing students' abilities to make optimal use of time (time management).

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	- Basics of plant anatomy, Alany, B. O. & Salih, K. N. 1988. Third Ad.	yes
Recommended Texts	- Plant anatomy, Richard Crang& Anrey Vassilyev ,2003.	yes
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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	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
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COURSE SCHEDULE: -

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	**Introduction of plant**
Week 2	**Cell plant**
Week 3	**Cell plant**
Week 4	**Cell plant**
Week 5	**Detials study**
Week 6	**Collenchya& Sechlyma**
Week 7	**Phloem**
Week 8	**Xylem**
Week 9	**Tissue& Secretion structures**
Week 10	**paranchyma**
Week 11	**Study of growth**
Week 12	**Internal structure**
Week 13	**Internal structure**
Week 14	**Internal structure**
Week 15	**exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Microscope
Week 2	Rules to be followed in the laboratory
Week 3	Steps for preparing microscopic slides
Week 4	killing and fixation
Week 5	Fixation methods
Week 6	Washing, Preservation
Week 7	**Dehydration**
Week 8	Clearing
Week 9	**Embedding**
Week 10	Section Making

Week 11	Microtomes
Week 12	Sectioning
Week 13	Staining
Week 14	Mordant
Week 15	exam

Learning Outcomes and Assessment Methods for " Plant Anatomy " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: **Introduction of plant**	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II **Cell plant**	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: **Detials study**	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: **- Phloem**	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: **Xylem**	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI*:* **paranchyma**	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII**: Study of growth**	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	)5% (5	Continuous	
	Seminar	1	)5% (5		
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	Midterm Exam (10%)	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية					
Module Title	**General Entomology**			**Module Delivery**	
Module Type	Core			**Theory** **✓ Lecture** **✓ Lab** **☐ Tutorial** **☐ Practical** **✓ Seminar**	
Module Code	**Bio23113**				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	**1**		**Semester**	**1**	
Department	**Biology**	**College**	**College of Science**		
Module Leader	**Riyad Ali Okaily**	**E-mail**	**riyad _okaily@environ.uoqasim.edu.iq**		
Module Leader's Acad. Title	**Associate Professor**	**Module Leader's Qualification**	**Ph.D.**		
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**		
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**		
Scientific Committee Approval Date		**Version Number**			

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules:-

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:	. 1- Enabling students to know the position of insects in the animal world 2- Enable students to know the external anatomy of insects 3- Enabling students to know the factors that help insects spread 4- Enabling students to know the harm caused by insects as well as the benefits they provide to humans 5- Enabling students to know the methods of reproduction and the conditions that help them reproduce for the purpose of controlling them and reducing their numbers.
Module Aims أهداف المادة الدراسية	-Cognitive objectives - Enable students to know the mouth parts of insects - Enabling students to know the mechanics of aviation - Enabling students to know the types of reproduction methods, breeding dates, and conditions that help reproduction - Enabling students to know the importance and functionality of the various body systems
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Planning for personal development . 2. Leadership skills . 3. Adopting the method of delivering an optional lecture by the student. 4. Developing the ability to link topics and conclusions
Indicative Contents المحتويات الإرشادية	1- Book of general entomology. 2- book of medical and veterinary insects, Dr. Jalil Abu Al-Hob 3- **American Entomology .**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	1- Book of general entomology. 2- book of medical and veterinary insects, Dr. Jalil Abu Al-Hob	No

Recommended Texts		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.

COURSE SCHEDULE: -

Week	hours	Topics Covered	Learning Outcomes
		Topic I:	
1-2	4	Origin and Distribution of the Insectes	4
		Topic II: -	
3-4	4	Body Wall and Exo skeleton Intégument Structure	4
		Topic III: -	
5-6	4	Head Capsule Principles Structures and areas Antennal	4
		Topic IV: -	
7-9	6	Mouth components, mouth mutations in insects	4
		Topic V: -	
10	2	Alary Wing Thorax. General Structure of Alary Wing Thorax .	4
		Topic VI: -	

11	2	Basal Articulation of Legs. Origin of Wings and Structure Mechanism of Flight	4
12	2	Abdominal Appendage Non- reproductive Appendages)	
13	2	Ovipositeur Genitalia Sound – Producing Organs	
Topic VII: -			
14-15	4	Types of reproduction methods reproduction dates, and conditions that help reproduction	4
Final Exam			

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Methods of collection insectes
Week 2	Body Wall and Exo skeleton
Week 3	Head Capsule Principles Structures and areas Antennal
Week 4	.Mouth components, mouth mutations in insects
Week 5	Basal Articulation of Legs. Origin of Wings and Structure Mechanism of Flight
Week 6	Abdominal Appendage Non- reproductive Appendages
Week 7	Ovipositeur Male Genitalia

Learning Outcomes and Assessment Methods for " General Entomology " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods

Topic I **Origin and Distribution of the Insectes**	1-6	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II: **- Body Wall and Exo skeleton**	1-3	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: **- Head Capsule**	3-6	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: **Mouth components, mouth mutations in insects**	2-3	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: **- Basal Articulation of Legs.**	1-6	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: **- Abdominal Appendage**	1-6	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII**: - Types of reproduction methods reproduction dates, and**	2-3	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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				
Summative assessment	Midterm Exam (10%)	2hr	10% (10)	8	LO # 1-15

	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)	**Total assessment**	100% (100 Marks)

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية			
Module Title	Plant Taxonomy	**Module Delivery**	
Module Type	Core	☐ Theory ✓ Lecture ✓ Lab ☐ Tutorial ☐ Practical ✓ Seminar	
Module Code	BIO-222		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	2	**Semester**	4
Department	Biology	**College**	College of science
Module Leader	م.م احمد علي حسين	**E-mail**	ahmedali@science.uoqasim.edu.iq
Module Leader's Acad. Title	Ass.Lec	**Module Leader's Qualification**	Ms,c
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules:-

Relation with other Modules العلاقة مع المواد الدراسية الأخرى

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

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:	Teaching students the basics of plant classification, methods of diagnosing plants, naming them (giving a scientific name) and classifying them in their own taxonomic ranks according to a reliable taxonomic system that reflects their evolutionary relationships.
Module Aims أهداف المادة الدراسية	The main goal of study 1. Learn the terms related to each of the roots, stems, leaves, flowers, inflorescences and fruits. 2. Study of floral equation and symbols. 3. Study the characteristics of different plant families. 4. Study the taxonomic key.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	On successfully completing outcomes. learning specific subject intended The the module students will be able to: . Conservation and study of the phenotypical characteristics of different 1 plants. 2. Study the characteristics of different families. .Learn about the steps of the taxonomic keys 3. . Study of different dry and fresh samples of plants.4 5. Learn to identify the botanical family of unidentified samples. 6. Use of dry and fresh plant samples. 7. Learn about different plant parts. 8. Learn about the use of the classification key. 9. Learn how to write floral equations. 10. Identify the main divisions of plant groups with examples of some families, genera and species. . Know the descriptive terms for the phenotypic parts of the plant.11 12. Know the description of families and the most important genera and species. .13. Knowledge of botanical nomenclature
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. • Flora of Iraq vol. 1-9 • Ecology and Plant of basrah (2016). • Plant taxonomy

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	• Flora of Iraq vol. 1-9 • Ecology and Plant of basrah (2016). • Plant taxonomy	yes
Recommended Texts	• Flora of turkey • Flora of Iranica.	yes
Websites	https://www.kew.org	

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.

COURSE SCHEDULE:-

Week	hours	Topics Covered	Learning Outcomes
		***Topic I:* Plant taxonomy**	
1-2	6	– Introduction to Plant taxonomy – The purpose and importance of Plant taxonomy.	1, 2, 3, 6, and 9

		– Herbarium – The relationship of taxonomy with other sciences	
		***Topic II:* - plant evolutionary systems**	
3-4	6	– First era – The second era – The third era – Fourth era	3, 4, 5, and 9
		***Topic III:* - plant organs**	
5-6	6	– Phytography and terminology of Vegetative organs – Root system – stems	3, 4, 5, and 9
		***Topic IV:* - Vegetative characters**	
7-9	9	– **Buds** – Classification of buds – leaf parts – phyllotaxy – leaf complexity	1, 3, 4, 8 and 8
		2 *Topic V:* Vegetative characters	
10	3	– leaf blade shapes – blade apex – blade base – Leaf margin – Leaf Venation – Leaf Modification – Leaf Duration	3, 8, and 9
		***Topic VI:* -** Reproductive Characters	
11	3	– Floral Parts Arrangement – Floral Parts Arrangement – Number of Whorls – Perianth – Flower symmetry	3, 8,9 and 10
12	3	Androecium – Anther – Anther Dehiscence – Filament – Heterostemony – Stamens Fertility	

		– Insertion of Stamens	
13	3	Gynoecium – Types of Gynoecium – Stigma – Position of style – Ovary – Placentation – Position of ovary	
Topic VII; Inflorescences			
14-15	18	– Racemose, Indefinite or Indeterminate – Cymose , Definite , Determinate Inf – Special Inflorescences – Floral formula – Pollen Grains and Pollination	13 and 12, 11
Final Exam			

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Introduction to plant taxonomy.
Week 2	Lab 2: General conventions
Week 3	Lab 3: Terminology for vegetative organs
Week 4	Lab 4 Terminology for the reproductive organs
Week 5	Lab 5: Collection of plant samples and methods of diagnosis
Week 6	Lab 6: preparation of plant herbarium.
Week 7	Lab 7: Drying and pressing.
Week 8	Lab 8: Flower structure
Week 9	Lab 9: perianth
Week 10	Lab 10: Aestivation
Week 11	Lab 11: inflorescence.
Week 12	Lab 12: Floral Diagram.
Week 13	Lab 13: Floral FORMULA.

Week 14	Lab 14: Study of two species of flowering plants
Week 15	Lab 15: Examination

Learning Outcomes and Assessment Methods for " Plant Taxonomy " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: **Plant taxonomy**	1, 2, 3, 6, and 9	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II: **- plant evolutionary systems**	3, 4, 5, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: **- plant organs**	3, 4, 5, and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: **- Vegetative characters**	1, 3, 4, 8 and 8	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: **Vegetative 2 characters**	3, 8, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: **-** Reproductive Characters	3, 8,9 and 10	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII; Inflorescences	13and 12, 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

Module Evaluation:-

Module Evaluation تقييم المادة الدراسية				
	Time/Nu	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**

		mber			
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	)5% (5	Continuous	
	Seminar	1	)5% (5		
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	Midterm Exam (10%)	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية			
Module Title	**Microbiology 2**	**Module Delivery**	
Module Type	Core	**Theory** **✓ Lecture** **✓ Lab** **☐ Tutorial** **☐ Practical** **✓ Seminar**	
Module Code	BIO-224		
ECTS Credits	6		
SWL (hr/sem)	**150**		

Module Level	**2**	**Semester**	**4**
Department	**Biological**	**College**	**College of Science**
Module Leader	**Zaman Salman Hamza**	**E-mail**	**zamansalman@science.uoqasim.edu.iq**
Module Leader's Acad. Title	**Assistant Professor**	**Module Leader's Qualification**	**Ph.D.**
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**
Scientific Committee Approval Date		**Version Number**	

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

Student Workload (SWL) الحمل الدراسي للطالب			
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
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Relation with other Modules:-

Relation with other Modules العلاقة مع المواد الدراسية الأخرى

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

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:	This course, which is considered an introduction to medical microbiology, aims to introduce students to the basic concepts of microbiology as well as provide the necessary information to understand the subject of basic biological sciences of pathogenic organisms (bacteria, fungi) and understand the mechanism of their spread and pathogenicity. In addition to theoretical information, the department is keen to provide students with laboratory techniques related to microbiology.
Module Aims أهداف المادة الدراسية	**. Course Objectives** The teaching of the Medical Microbiology course aims to provide a set of theoretical and practical concepts that ultimately lead to Introducing and understanding students of microbiology, its scientific division, and the most important common and rare microbial diseases As well as graduating students who are able to: - Work in the field of medical laboratories with theoretical and applied knowledge of microbiology - Obtain the skills required for the post-graduation plan (postgraduate studies). - Submit to external tests by local/regional/international bodies. Or treat it according to local, regional and international standards - Thinking and analytical skills that enable the laboratory diagnosis of bacterial disease-causing agents - Providing students with the skills to work in scientific and research laboratories and study the importance of different types of bacteria that infect humans and animals and their importance and danger - One of the most important goals that the Microbiology Department aspires to achieve in the future is to establish a research unit affiliated with the department to be a scientific and research source for other branches and to work on providing graduate students with information and scientific means to ensure raising the scientific level
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**Course Outcomes, Teaching, Learning and Evaluation Methods** A- Cognitive Objectives 1- Obtaining basic information on microbiology. A 2- Providing a broad base of knowledge and understanding of microbiology. A 3- Enabling students to obtain knowledge and understanding of the methods used in dealing with microscopic pathogens such as bacteria and fungi and laboratory diagnostic methods in the local reality. A 4- The student uses the appropriate laboratory diagnostic methods for each disease A 5- Enabling students to obtain knowledge and understanding of the methods used in laboratory diagnosis at the international level A A6- Introducing the student to laboratory work and applying theoretical information and linking it to the reality of laboratory work and how to apply diagnostic tests and

laboratory examination methods in their various forms.

B- Course specific skill objectives.

B 1 - Practice laboratory techniques and skills in the field of microbiology.

B 2 - Cultivation and diagnosis of common pathogenic microorganisms

B 3 - Handling laboratory materials, sterilization methods and controlling the spread of diseases

B 4- Identifying how to determine treatment, antibiotics and pathogenicity of microorganisms

B 5-Understanding the immune changes associated with infections and knowing the methods of diagnosis and analyzing their results

Teaching and learning methods

- Delivering detailed theoretical lectures according to the curriculum
- Providing students with the basics and additional topics related to the previous educational outcomes of skills, to solve scientific problems
- Asking students during practical laboratories to reach an examination and diagnosis of some bacterial and fungal microscopic causes.
- Diagnosing a group of pathogens by the academic staff
- - Student contribution by actual participation in tests
- Workshops and student groups Project Team.
- - E-learning.

Evaluation methods

- Daily exams with practical and scientific questions.
- Student participation individually or in groups in solving daily questions
- Retaking exams to increase the student's understanding and identify weaknesses to avoid them
- Participation grades for difficult competition questions between students orally.
- Grade homework assignments and reports.
- Participate in students presenting reports to their peers to increase behavioral and emotional skills
- Quarterly exams for the theoretical and practical curriculum in addition to the final exam

C- Emotional and value objectives

C 1- Enabling students to think and analyze topics related to the intellectual framework of microbiology

C 2- Enabling students to think and analyze topics related to the morphological and cultural characteristics of bacteria and fungi and the different ways of living and feeding.

C 3- Enabling students to think and analyze topics related to diseases resulting from bacterial and fungal pathogens.

C 4- Enabling students to think and analyze how to deal with laboratory samples and bacterial and fungal pathogens and methods of diagnosing them.

	Teaching and learning methods - Providing students with the basics and topics related to the outputs of thinking and analysis. Forming a discussion group through theoretical and practical lectures to discuss the topic presented, which requires thinking, analysis and conclusion.. Asking students a set of thinking questions during lectures such as (what, how, when, and why) specific topics Giving students homework that requires different scientific explanations. Teaching students how to build thinking and analysis methods. Evaluation methods Daily exams with practical and scientific questions. Participation grades for difficult competition questions between students. Setting grades for homework and reports assigned to them. Semester exams for the theoretical and practical curriculum in addition to the final exam D- General and transferable skills (other skills related to employability and personal development). D 1- Enabling students to write reports on topics related to microbiology. D 2- Enabling students to link the occurrence of diseases to health reality and diagnostic methods. D 3- Enabling students to pass medical tests in health laboratory courses. D 4- Enabling students to continue self-development after graduation by learning about the laboratory management mechanism D 5- Holding special seminars for students for the purpose of self-development of their personalities
Indicative Contents المحتويات الإرشادية	

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
1- Required textbooks	Medical Microbiology	No
2- Main references (sources)	Medical Microbiology\ Jawetz,E.:Melizik,J.L. WAWERREN LEVENSON and Adelberg ,E.A Fungi Experimental methods in Biology\ - J.W.Bennett	No
A- Recommended books and references (scientific journals, reports, etc.)	مكتبة الكلية والتي تحوي مصادر ذات العلاقة Pathogenesis of bacterial infection in animals\Carlton L.Gyles,John.FPresccot -Clinical veterinary	No

	microbiology\ P.J.Quinn	

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.

COURSE SCHEDULE: -

Week	hours	Topics Covered	Learning Outcomes
1	2	Immunity	
2	2	Bacterial Genetics	
3	2	Bacterial pathogenesis	
4	2	Micro Flora	
5	2	Antibiotics	
6	2	Food Microbiology	
7	2	Industrial Microbiology	
8	2	Biotechnology	

9	2	Soil Microbiology	
10	2	Water Microbiology	
Final Exam			

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	**تعداد البكتيريا طريقة bread**
Week 2	**طريقة شريحة العد المجهري**
Week 3	**طريقة تخفيف**
Week 4	**طريقة صب الاطباق**
Week 5	**طرق الزرع التخفيف والتلقيح**
Week 6	**الطعن والنشر**
Week 7	**المسح وصب الاطباق**
Week 8	**انواع المستعمرات**
Week 9	**الفطريات والخمائر**
Week 10	**الاختبارات البيوكيميائية**
Week 11	**الاختبارات البيوكيميائية**
Week 12	**الاختبارات البيوكيميائية**
Week 13	**تأثير المواد الكيميائية والمطهرات في نمو البكتيريا**
Week 14	**دراسة النتائج وكتابة تقرير**
Week 15	**امتحان**

Learning Outcomes and Assessment Methods for "Microbiology2" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I, Immunity , Bacterial Genetics	1-6	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II: - Bacterial Pathogenesis , Micro flora	1-3	Problem Based Learning, Report Writing, Field Visits, Scientific	Seminars, Major reports, discussions during lectures.

		Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Written Exams, oral exams.
Topic III: - Antibiotics	3-6	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: - Food Microbiology , Industrial Microbiology	1-6	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: - Biotechnology	1-3	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: - Soil Microbiology	1-6	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
***Topic VII*: - Air Microbiology**	2-3	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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, 3 and 5
	Assignments & H.W.	2	10% (10)	2, 12	LO # 1, 3 and 6
	Projects / Lab.	1	10% (10)	Continuous	
	Seminar	1	10% (10)	Continuous	
	Field Visits Report	1	10% (10)	10	LO # 3, 6
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # All
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية					
Module Title	**Biochemistry 2**			**Module Delivery**	
Module Type	**Core**			☐ **Theory** ✓ **Lecture** ✓ **Lab** ☐ **Tutorial** ☐ **Practical** ✓ **Seminar**	
Module Code	BIO-223				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	**2**		**Semester**	**4**	
Department	**Biology**	**College**	**College of science**		
Module Leader	**أ.م.د. عقيل علاء حسين**	**E-mail**	aqeelalaa@science.uoqasim.edu.iq		
Module Leader's Acad. Title	**Associate Professor**	**Module Leader's Qualification**	**Ph.D.**		
Module Tutor	**Name (if available)**	**e-mail**	**E-mail**		
Peer Reviewer Name	**Name**	**e-mail**	**E-mail**		
Scientific Committee Approval Date	**01/06/2023**	**Version Number**	**1.0**		

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules:-

Relation with other Modules العلاقة مع المواد الدراسية الأخرى

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

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:	Biochemistry is concerned with the study of the chemical processes of living organisms and includes describing the structure and function of biomolecules such as carbohydrates, lipids, fatty acids, amino acids, proteins, enzymes, and nucleic acids, and studying the chemical and physical properties and functions of these biomolecules.
Module Aims أهداف المادة الدراسية	• Get a general introduction to biochemistry in relation to biomolecules. • Explore the different types of carbohydrates and understand their classifications. • Classification of amino acids according to their properties, distinguishing the side chains of amino acids and the structure of proteins. • Defining the basic and complex structures of proteins, classifying their types, and understanding the basic principles of protein purification or detection methods. • Classify enzymes according to the rules of the Enzyme Committee, distinguish the concept of enzyme function, understand the catalytic roles of enzymes, and explain the mechanisms of enzyme regulation. • Classify fats and fatty acids, identify their physical and chemical properties, and explain their biochemical functions. • Classification and clarification of nucleic acids and their chemical and functional properties.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The intended subject specific learning outcomes. On successfully completing the module students will be able to: 1-The learning outcomes are designed to help learners understand the objectives of studying B.Sc. Biochemistry that is, to analyse, appreciate, understand the basic concepts of chemical reactions that occur in living systems, which enable them to understand the various perspectives of applied sciences that benefit the mankind. 2-To understand the concepts of preparation of buffers. To estimate biomolecules such as glucose , proteins,cholesterol in clinical samples. To isolate of lipids . 3-Demonstrate an understanding of the principles of the protein structure/folding and an ability to explain their functions in general. -Describe the key principles of static enzyme Biochemistry, enzyme 5 classification and basic principles of enzyme functioning. -Explain the basic principles of the nucleic acid structure and their disparate 5 cellular roles and its practical applications. -Explain the principles of carbohydrate Biochemistry and the biological 6

	functions of the carbohydrates. -Demonstrate a knowledge of the principles of lipid classification, structure 7 and functions. -Understand basic mechanisms of static integration of biologically active 8 compounds into biological membranes. -Demonstrate an ability to link this knowledge to everyday activities in the 9 bioscience workplace. - To become aware with the variations in the levels of trigycerides and 10 lipoproteins and their relationship with various diseases. To get acquainted with the role of enzymes in diagnosis of various diseases. - To estimate biomolecules such as glucose , proteins,cholesterol in clinical 11 samples, and exposure to the mechanisms of causation of diseases of liver and kidney. - Understand : Classification and biological role. Fatty acids – Nomenclature of 21 saturated and unsaturated fatty acids. Physiological properties of fatty acids
Indicative Contents المحتويات الإرشادية	. Preparing class and homework assignments Preparing reports on practical experiences • Conduct daily and quarterly examinations • •Conducting final exams

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	• The lectures made by the lecturer • Voet D. & Voet, J. (2011). Biochemistry. 4th Ed. WILEY. USA. • Nelson, D. & Cox, M. (2017). Lehninger Principles of Biochemistry. 7th Ed. Freeman, W. H. & Company. USA. - Campbell, M. Farrell, S. & McDougal, O. (2018). Biochemistry. 9th Ed. Cengage Learning. USA.	yes
Recommended Texts	Special requirements (including, for example, workshops, periodicals, software, and websites)	yes
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.

COURSE SCHEDULE:-

Week	hours	Topics Covered	Learning Outcomes
		Topic V: - Fatty acids and Lipids	
1-10	**6**	•Definition and classification of fats •Structural diversity of lipids: fatty acids, triglycerides, phospholipids, etc. •The importance of fats in cellular structure and function •Fatty acid structure: saturated, monounsaturated, and polyunsaturated fatty acids •Systematic and common names for fatty acids •Fatty acid chains in biological lipids: length, saturation and trans-cis isomerism •Fatty acid deficiency •Transport of fatty acids in the human body •Functions of fatty acids •Classification of Lipids •Fatty acids •Glycerolipid •Glycerolphospholipid •Sphingolipids •Steroid •Brinol •Lipopolysaccharides •Polyketides • Vitamins	➢ **Introduction to fats and fatty acids** ➢ **Fatty acid structure and nomenclature** ➢ **The importance of fatty acids** ➢ **Types of fats**
		Topic VI: - Vitamins	**Introduction to Vitamins**
11-15	**2**	• Water-soluble vitamins: Water-soluble vitamins include B complex vitamins (B1, B2, B3, B5, B6, B7, B9, B12) and vitamin C (ascorbic acid). • Fat-soluble vitamins: Fat-soluble vitamins include vitamins A, D, E, and K.	

Ministry of Higher Education and Scientific Research

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Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 8: Estimation of serum of albumin
Week 2	Lab 9: Estimation of serum of urea (enzymatic).
Week 3	Lab 10: Estimation of serum uric acid.
Week 4	Lab 11: Estimation of serum total bilirubin and direct bilirubin.
Week 5	Lab 12: Estimation of serum sodium and potassium.
Week 6	iron.،Lab 13: Estimation of serum calcium
Week 7	Lab 14: Estimation of serum Phosphorous
Week 8	Lab 15: Examination
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	

Learning Outcomes and Assessment Methods for "Biochemistry2" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
– ***Topic I:*** Definition and classification of fats	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
– ***Topic II:*** Fatty acid structure: saturated, monounsaturated	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: saturation and trans-cis isomerism	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.

Topic IV: - Glycerolipid	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: Glycerolphospholipid	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: Polyketides	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
***Topic VII*:** Water-soluble vitamins	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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	2	10% (10)	2, 12	LO # 3, 4, 6, and 8
	Projects / Lab.	1	)5% (5	Continuous	
	Seminar	1	)5% (5		
	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية					
Module Title	**Systematic Entomology**			**Module Delivery**	
Module Type	Core			☐ **Theory** ✓ **Lecture** ✓ **Lab** ☐ **Tutorial** ☐ **Practical** ✓ **Seminar**	
Module Code	BIO-221				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	**2**		**Semester**	**4**	
Department	**Biology**		**College**	**College of Science**	
Module Leader	**Riyad Ali Okaily**		**E-mail**	**riyad _okaily@environ.uoqasim.edu.iq**	
Module Leader's Acad. Title	**Associate Professor**		**Module Leader's Qualification**	**Ph.D.**	
Module Tutor	**Name (if available)**		**e-mail**	**E-mail**	
Peer Reviewer Name	**Name**		**e-mail**	**E-mail**	
Scientific Committee Approval Date			**Version Number**		

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

Student Workload (SWL) الحمل الدراسي للطالب			
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	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Relation with other Modules:-

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:	. 1- Enabling students to know the position of insects in the animal world 2- Enable students to know the external anatomy of insects 3- Enabling students to know the factors that help insects spread 4- Enabling students to know the harm caused by insects as well as the benefits they provide to humans 5- Enabling students to know the methods of reproduction and the conditions that help them reproduce for the purpose of controlling them and reducing their numbers.
Module Aims أهداف المادة الدراسية	-Cognitive objectives - Enable students to know the mouth parts of insects - Enabling students to know the mechanics of aviation - Enabling students to know the types of reproduction methods, breeding dates, and conditions that help reproduction - Enabling students to know the importance and functionality of the various body systems
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Planning for personal development . 2. Leadership skills . 3. Adopting the method of delivering an optional lecture by the student. 4. Developing the ability to link topics and conclusions
Indicative Contents المحتويات الإرشادية	4- Book of general entomology. 5- book of medical and veterinary insects, Dr. Jalil Abu Al-Hob 6- **American Entomology .**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	3- Book of general entomology. 4- book of medical and veterinary insects, Dr. Jalil Abu Al-Hob	No
Recommended Texts		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
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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: -

Delivery Plan (Weekly. Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Concepts and definitions**
Week 2	**Concepts and definitions**
Week 3	**Insects Development**
Week 4	**Insects Development**
Week 5	**Insects**
Week 6	**Insects**
Week 7	**Insects**
Week 8	**Insects**
Week 9	**Insects**
Week 10	**Insects Taxonomy principles**
Week 11	**Myiasis Producing Flies**
Week 12	**Mosquitoes, Culicidae**
Week 13	**Mosquitoes Anopheles**

Week 14	**Vector born Control**
Week 15	**Final exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي العملي	
	Material Covered
Week 1	**classification Of Insects**
Week 2	**The orders of insects**
Week 3	**Sub Class Apterygota**
Week 4	**Sub Class pterygote**
Week 5	**Division: Exopterygota**
Week 6	**order : Odonata**
Week 7	**Exam**
Week 8	**order Ortho tera**
Week 9	**order Dictyoptera**
Week 10	**order Isoptera**
Week 11	**order Dermaptera**
Week 12	**order Mallophaga**
Week 13	**order Anoplura**
Week 14	**order Hemiptera , Homotera**
Week 15	**Exam**

Learning Outcomes and Assessment Methods for " Systematic Entomology " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I, **Concepts and definitions**	1-6	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II: **Insects Development**	1-3	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.

Topic III: **- Insects**	3-6	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: **- Insects Taxonomy principles**	1-6	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: **Myiasis Producing Flies**	1-3	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: **- Mosquitoes, Culicidae**	1-6	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII**: Vector born Control**	2-3	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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	1	10% (10)	2,7	
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2hr	10% (10)	8	LO # 1-15
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)	**Total assessment**	100% (100 Marks)

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية				
Module Title	**English Language.**		**Module Delivery**	
Module Type	**Basic**		☐ **Theory** ✓ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UNI-203**			
ECTS Credits	2			
SWL (hr/sem)	**50**			
Module Level	2		**Semester**	4
Department	***Bachelor's degree (Biology)***		**College**	***College of science***
Module Leader	**Nadhim Tuheily Salim**		**E-mail**	Nadhim.T.S@science.uoqasim.edu.iq
Module Leader's Acad. Title	**Assistant lacture**		**Module Leader's Qualification**	**MASTER**
Module Tutor	**Nadhim Tuheily Salim**		**e-mail**	
Peer Reviewer Name			**e-mail**	
Scientific Committee Approval Date	**01/06/2024**		**Version Number**	**1.0**

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	18	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Relation with other Modules:-

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:	I have been doing the same experiences to get or produce high-quality education for students. Some of them are follows: 1-Develop interactive lesson plans to deliver high-quality education for students. 2-Manage students' behavior while developing and teaching strategies of English language support students' self-control. 3-Formulate and implement rules for behavior and procedures of teaching English language for maintaining a well-disciplined learning environment. 4-Assess students' skills while learning english to determine their needs and develop effective teaching plans particular to each student's abilities. 5-Facilitated students' presentations while providing interventions and methods on how they manage their presentations in a front of their friends.
Module Aims أهداف المادة الدراسية	6. The first level is to improve understanding (ability development). In interpretation, prediction and conclusion 7. The second level is the development of applied capabilities (Application 8. The third level gives the student the ability to analyze 9. The fourth level is to develop the student's ability to integrate ideas and information (level Synthesis (which is the opposite of analysis 10. Level 5: Evaluation: Developing the student's ability to judge a value learned material
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**At the completion of the course, students are expected to be able to:** 2- Teaching the student to receive (receiving) Receiving 2- Developing the student's ability to respond 3-c That the student be able to evaluate (give a value). 4- Improving the student's ability to value organization 5- C Integration of value with the behavior of the individual (giving a personality trait) Characterization by the vaule
Indicative Contents المحتويات الإرشادية	Indicative content includes the following.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	Soars, John and Liz, (2011), New Headway Plus, Special	Yes

	Edition, Beginner Level, Oxford University Press.	
Recommended Texts	New Headway Plus provides an integrated skills course with each unit divided into grammar, vocabulary, skills work and everyday English segments	yes
Websites	Oxford University Press: The New Headway series is published by Oxford University Press. and search for "New Headway Plus, Special Edition, www.oup.com Visit their website at Beginner Level " or browse their English language teaching section for information on the course.	

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
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Fail Group (0 – 49)	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
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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:-

Delivery Plan (Weekly. Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Tenses & Questions Present, past, future Questions words Who ... ?, Why ... ?, How much ... ? 2-Reading " the great communicators" 3-Writing " a letter to a pen friend"
Week 2	Present tenses & have/have got Present Simple / Present Continuous 2-Reading " Living in the USA " 3-Writing " linking words such as but, however"

Week 3	Past tenses Past Simple & Past Continuous 2-Reading " the burglar's friend " 3-Writing " linking words such as , while, during and for" 4-vocabulary A-Irregular verbs B- Nouns, verbs, and adjectives Suffixes to make different parts of speech
Week 4	Quantity much and many some and any a few, a little, a lot of 2-Speaking " telling stories"
Week 5	Verb patterns 1 Future intentions / going to and wil 2-Reading " Hollywood Kids" 3-Listening "You've got a friend"
Week 6	Comparative and superlative adjectives big, bigger, biggest good, better, best 2-Reading" a tale of two millionaires" 3-vocabulary" synonyms and antonyms
Week 7	Present perfect and past simple Since and for Short answers 2-Reading" celebrity interview from Hi!"
Week 8	Have to / have got to Should / must 2-Writing" formal letters"
Week 9	Time clauses such as if 2-Vocabulary " hot verbs" 3-Reading" megalopolis"
Week 10	Verb patterns 2 2-Vocabulary" ed/ ing adjectives" 3-Writing" formal and informal letters"
Week 11	Passives 2-Vocabulary" verbs and nouns that go together" 3-Reading"DNA"
Week 12	Second conditional Might 2-Reading" supervalcano" 3-Vocabulary "Phrasal verbs"
Week 13	Present Perfect Continuous Present Perfect Simple versus Continuous 2-Vocabulary" word formation" 3-Reading " life on the beach" 4-listening" giving news"

Week 14	Past perfect Reported statments 2-Vocabulary" hot verbs" 3-Reading " the tale of two silent brothers" 4-listening" families that abroad" 5-Writing " a story "
Week 15	Revision of grammar for Units three , six ,nine, eleven, thirteen

Learning Outcomes and Assessment Methods for " English Language" Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I, Tenses & Questions	1-6	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II: Present tenses & have/have got	1-3	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: - Past tenses	3-6	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: - Quantity	1-6	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V: - Verb patterns	1-3	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: - Comparative and superlative adjectives	1-6	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII**:** Present perfect and past simple	2-3	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

Module Evaluation:-

Module Evaluation تقييم المادة الدراسية				
	Time/Nu	**Weight (Marks)**	**Week Due**	**Relevant Learning**

		mber			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.				
	Seminar				
	Field Visits Report	1	10% (10)	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	Midterm Exam (10%)	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Ministry of Higher Education and Scientific Research

Al-Qasim Green University/ College of Science

Department of Biology

MODULE DESCRIPTION

Module Information

معلومات المادة الدراسية

Module Title	Arabic Language	**Module Delivery**	
Module Type	Basic	☐ Theory ✓ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	UNI-204		
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	UG	**Semester of Delivery**	4
Administering Department	Biological	**College**	College of Science
Module Leader	Hassan Mohammed Kadum	**e-mail**	
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor		**e-mail**	
Peer Reviewer Name		**e-mail**	E-mail
Scientific Committee Approval Date	16/12/2024	**Version Number**	1.0

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

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 Aims أهداف المادة الدراسية	1. القراءة من دون لحن 2. الحد من الاخطاء الاملائية 3. الحد من الاخطاء النحوية 4. الاطلاع على تاريخ اللغة العربية 5. تعريف الطلبة بمزايا وخصائص لغة القران الكريم
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. تعلم القراءة من دون لحن 2. تجاوز الاخطاء الاملائية 3. معرفة تاريخ العربية 4. تعلم قواعد اللغة العربية 5. معرفة الطلبة بمزايا اللغة
Indicative Contents المحتويات الإرشادية	- العصور الأدبية وفنونها ، الشعر الجاهلي وخصائصه، نموذج تطبيقي قصيدة الاعشى (9 ساعات) - الخطابة في العصر الجاهلي، الشعر الإسلامي وخصائصه، دراسة قصيدة كعب بن زهير (البردة) (9 ساعات) - الشعر العباسي وخصائصه، الدراسة قصيدة للشاعر الشريف الرضي، الشعر الحديث مع دراسة نموذج تطبيقي للسياب، قواعد كتابة الهمزة (12 ساعة) - علامات الاعراب الفرعية والاصلية، الاغلاط اللغوية الشائعة في الكتابة العلمية، الفرق بين التاء والهاء والفرق بين الضاد والظاء، اهم المصادر المتداولة في علوم اللغة العربية (12 ساعة)

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	ان الاستراتيجية المعتمدة في هذه المادة هو تشجيع الطلبة على البحث والتحري عن الفنون الأدبية المتعددة للغة

	العربية فضلا عن قيامهم بعقد الورش والندوات التي تهتم باللغة العربية وتاريخها

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	البيان والتبين . نهج البلاغة . الفية ابن مالك اللغة العربية العامة د. زينة الذهبي	Yes
Recommended Texts	نهج البلاغة	No
Websites	https://www.noor-book.com	

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	العصور الأدبية وفنونها
Week 2	الشعر الجاهلي وخصائصه
Week 3	نموذج تطبيقي قصيدة الاعشى
Week 4	الخطابة في العصر الجاهلي
Week 5	الشعر الإسلامي وخصائصه
Week 6	دراسة قصيدة كعب بن زهير (البردة)
Week 7	الامتحان الفصلي
Week 8	الشعر العباسي وخصائصه
Week 9	دراسة قصيدة للشاعر الشريف الرضي
Week 10	الشعر الحديث مع دراسة نموذج تطبيقي للسياب

Week 11	قواعد كتابة الهمزة
Week 12	علامات الاعراب الفرعية والاصلية
Week 13	الاغلاط اللغوية الشائعة في الكتابة العلمية
Week 14	الفرق بين التاء والهاء والفرق بين الضاد والظاء
Week 15	اهم المصادر المتداولة في علوم اللغة العربية

Learning Outcomes and Assessment Methods for " Arabic Language " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I العصور الأدبية وفنونها	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topic II: نموذج تطبيقي قصيدة الاعشى	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: الخطابة في العصر الجاهلي	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: - دراسة قصيدة كعب بن زهير (البردة)	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V الشعر الحديث مع دراسة نموذج تطبيقي للسياب	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: علامات الاعراب الفرعية والاصلية	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII: الفرق بين التاء والهاء والفرق بين الضاد والظاء	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

Module Evaluation

تقييم المادة الدراسية

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

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.

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Department of Biology

"COURSE PORTFOLIO"

Module Information معلومات المادة الدراسية					
Module Title	**Computer science**			**Module Delivery**	
Module Type	Basic			☐ **Theory** ✓ **Lecture** ✓ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	UNI-202				
ECTS Credits	3				
SWL (hr/sem)	75				
Module Level	2		**Semester**	4	
Department	**Biology**		**College**	**College of science**	
Module Leader	م. بتول عبد الهادي سلطان عويد		**E-mail**	batool@uoqasim.edu.iq	
Module Leader's Acad. Title	**Ass.Lec**		**Module Leader's Qualification**	**Ms,c**	
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**	

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	12	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Relation with other Modules:-

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:	Teaching the student the basic components of the computer and how to use the basic programs and their applications, such as the Word program and the PowerPoint program used in preparing various presentations, as well as the Excel program and applications.
Module Aims أهداف المادة الدراسية	The main goal of study Students successfully completing this course will be able to: 1. Utilize the computer for fundamental tasks. 2. Identify and discuss the hardware components of the computer system. 3. Creating documents using a word processor and creating presentations. 4. Conducting research on the Internet. 5. An introduction to Artificial Intelligence
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Learning Outcomes of Computer Fundamentals and Artificial Intelligence (Very Brief) Basic Concepts: Understand the components of computers and artificial intelligence. 1. Digital Skills: Use applications and networks effectively and securely. 2. Programming Basics: Write simple codes and analyze data. 3. Practical Applications: Create artificial intelligence models to solve problems. 4. Ethics: Awareness of the challenges and responsibility in using technology.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. - Microsoft basics and applications.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?

Required Texts	- Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020) - Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology In Action Complete", 16th Edition (2020). - Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024). -	yes
Recommended Texts	- Windows system version is available Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024).	yes
Websites	https:// https:// Computer Basics and the World of Artificial Intelligence.com/ar-sa	

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
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	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
		***Topic I* :Security and networking**	
1-2	6	**Security** and **Networking:** What is a network? – Types of networks. Basic network components. Network Security Basics. Understanding network threats. Network	1, 2, 3, 6, and 9

		Troubleshooting	
		Topic II: - **E- commerce**	
3-4	6	Concepts of Electronic banking – services this include online banking: ATM and debit card services, Phone banking ,SMS banking, electronic alert, Mobile banking	3, 4, 5, and 9
		– ***Topic III: -*** Computer Troubleshooting	
5-6	6	Computer Troubleshooting: identifying and solving common hardware and software problems that computer users encounter. Basic troubleshooting techniques and tools for diagnosing and resolving issues.	3, 4, 5, and 9
		Topic IV: Introduction to AI	
7-9	9	Definition of AI, History of AI, AI Techniques and Approaches, Challenges and Ethical Considerations.	1, 3, 4, 8 and 8
		Topic V: **AI in our daily lives**	
10	3	AI in Our Daily Lives: AI in smartphones and virtual assistants like Siri or Google Assistant.)	3, 8, and 9
		Topic VI: - **APPLICATION of AI**	
11	3	– Applications of AI: Education, Healthcare, Finance, Transportation, Marketing and Advertising –	3, 8,9 and 10
12	3	AI and Society (How AI affects social, AI and – International relations, AI and the future of humanity.)	
13	3	Ethical Challenges in AI (AI ethics, privacy and – surveillance, the impact of AI on the job market.)	
		– **Topic VII; AI and society**	
14-15	18	The future of AI :The Future of AI (Future trends in AI, recent – research and emerging technologies.	4, 10 and 11

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Final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: - network threats. Network Troubleshooting
Week 2	services Lab 2: : ATM and debit card
Week 3	Lab 3: privacy and surveillance, the impact of Al on the job
Week 4	Al in Our Daily Lives
Week 5	– Application of Artificial Intelligence in Education
Week 6	– Computer Troubleshooting: identifying and solving
Week 7	– Lab 7: Basic troubleshooting techniques and tools for diagnosing and resolving
Week 8	– Lab 8: software problems that computer users encounter.
Week 9	– Lab 9: Al in smartphones and virtual assistants like Siri or Google Assistant.)
Week 10	Lab 10: : Application of using artificial intelligence in shopping and transactions
Week 11	International relations Lab 11 : Al and
Week 12	– Lab 12 : How Al affects social,.
Week 13	Using artificial intelligence for surveillance-Lab 13
Week 14	– Lab 14 : - Research methods in emerging technologies
Week 15	Lab 15 :Examination

Learning Outcomes and Assessment Methods for " Computer science " Course.

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I: **Security and**		Report Writing, Field Visits, Theoretical Lectures, Scientific	quizzes, Major reports, discussions during lectures,

networking	4, 9 and 10	Films, Exploratory Work Teams.	Written Exams, oral exam.
– ***Topic II: -*** **E-commerce**	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III - **APPLICATION of AI**	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: **- International relations, AI and the future of humanity.**	3, 4, 5, 6,9 and 10	Theoretical Lectures, Small Group Discussions, and Scientific Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
– ***Topic V:*** **AI and society Presentation views**	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions, and Scientific Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams, oral exams.
Topic VI: Ways to create a blank presentation	3, 4, 5, 6, 7, 8, and 9	Theoretical Lectures, Small Group Discussions, and Scientific Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
Topic VII surveillance, the impact of AI on the job market.)	2, 4, 6, 7and 11	Theoretical Lectures, Small Group Discussions, and Scientific Problem Based Learning, Report Writing, Theoretical Lectures, .Small Group Discussions	quizzes, discussions during lectures. Written Exams, Home work.

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	)5% (5	Continuous	
	Seminar				

	Field Visits Report	1	)5% (5	10	LO # 5, 9, 11.12.13,14 and 15
	Discussions During Lectures				
Summative assessment	**Midterm Exam (10%)**	2 hr	10% (10)	8	LO # 1-10
	Final Exam (50%)	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

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Department of Biology

MODULE DESCRIPTION

Module Information
معلومات المادة الدراسية

Module Title	**جرائم نظام البعث في العراق**	**Module Delivery**	
Module Type	**Basic**	**Theory**	
Module Code	**UNI-201**	**✓Lecture**	
ECTS Credits	**2**	**Lab**	
SWL (hr/sem)		**☐Tutorial**	
		☐Practical	
		☐Seminar	

Module Level	**2**	**Semester of Delivery**	**4**
Administering Department	Type Dept. Code	**College**	Type College Code
Module Leader	أ.م. فاضل راضي محمد حمود الخشخشي	**e-mail**	fadhilu99@biotech.uoqasim.edu.iq
Module Leader's Acad. Title	Assist.Prof	**Module Leader's Qualification**	Ph.D.
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	24/09/2024	**Version Number**	1.0

Student Workload (SWL)
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	18	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem)	50		

الحمل الدراسي الكلي للطالب خلال الفصل	

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 Aims أهداف المادة الدراسية	1 .-تعريف الطلبة بأهم جرائم حزب البعث في العراق . 2- .تسليط الضوء على الانتهاكات الخطيرة لحقوق الأنسان . 3- .شرح مفصل لتعريف بالانتهاكات الحاصلة في ظل النظام السابق 4- .بيان حقائق هذا النظام الجائر من الأجيال التي لم تمر بمراحل حكمه. 5- تنشيط حركة البحث العلمي في ميادين الفكر السياسي والعلاقات الدولية والنظم والنظريات السياسية وحقوق الإنسان وتحليل الأزمات خصوصا تلك التي لها تأثير مباشر على بلدنا ومستقبله وبما يسهم في تطور الدراسات والمناهج المتخصصة في هذه الحقول
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	تعرف الطالب على جرائم البعث وفق قانون المحكمة الجنائية العراقية1- الحاصلة في زمن النظام السابق تمييز بين مفهوم الجرائم واقسامها2- للتعرف على الجرائم النفسية والاجتماعية وابرز انتهاكات حزب البعث3- للتعرف على قرارات المحكمة الجنائية الصادرة بحق الجرائم4- تمكين الطالب من فهم المفاهيم الأسس الواضحة التي يجب ان يكون عليه النظام السياسي
Indicative Contents المحتويات الإرشادية	1-تنمية إمكانات الطلبة لمعرفة الأسس المفاهيمية للمادة العلمية داخل القاعة

	2-تساعد على اعداد طلبة قادرين على فهم واقع النظام السياسي في العراق

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	للتعرف والاطلاع على مجموعة من الجرائم التي ارتكبها حزب البعث البائد والمنحل بحق أبناء الشعب العراقي ومن مختلف المكونات لأطيافه ولتأسيس وعي للطلبة لرفض جميع اشكال الظلم والتسلط لهذه الأنظمة والمطالبة بجميع الحقوق المدنية والسياسية من خلال القاء المحاضرات واستخدام طريقة النقاش

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	كتاب جرائم حزب البعث منهاج صادر عن دائرة البحث والتطوير في وزارة التعليم العالي	Yes
Recommended Texts	د. علي حنوش ،مشاكل الحاضر وخيارات المستقبل ،دار الكنوز ،لبنان، 2000	No
Websites	https://uomus.edu.iq/img/lectures21/MUCLecture_2023_1285263.pdf	

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	مفهوم الجرائم
Week 2	نبذه عن الانظمة السياسية في العراق
Week 3	النظام الملكي والنظام الجمهوري
Week 4	انتهاكات النظام البعثي للحقوق والحريات

Week 5	اثر المرحلة الانتقالية في محاربة السياسة الاستبدادية
Week 6	الميدان النفسي والاجتماعي
Week 7	الدين والدولة
Week 8	الثقافة والاعلام
Week 9	سياسة الارض المحروقة
Week 10	اماكن السجون والاحتجاز لحزب البعث
Week 11	الجرائم البيئة لحزب البعث التلوث الحربي والاشعاعي وانفجار الالغام
Week 12	وتجفيف الاهوار
Week 13	تدمير المدن والقرى
Week 14	تجريف البساتين الانهار والاشجار والنخيل
Week 15	جرائم المقابر الجماعية
Week 16	**Preparatory week before the final Exam**

" Course.جرائم حزب البعث في العراقLearning Outcomes and Assessment Methods for "

Topics Covered	Learning Outcomes	Strategies for Achieving Outcomes	Assessment Methods
Topic I:مفهوم الجرائم	4, 9 and 10	Report Writing, Field Visits, Theoretical Lectures, Scientific Films, Exploratory Work Teams.	quizzes, Major reports, discussions during lectures, Written Exams, oral exam.
Topicنبذه عن الانظمة السياسية في العراق	3, 4, 7 and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, Exploratory Work Teams.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic III: النظام الملكي والنظام الجمهوري	3, 4, 5, 6 and 9	Problem Based Learning, Report Writing, Theoretical Lectures, Small Group Discussions, Scientific Films.	Quizzes, discussions during lectures, Written Exams, Home work, oral exams.
Topic IV: -انتهاكات النظام البعثي للحقوق والحريات ة	3, 4, 5, 6,9 and 10	Report Writing, Scientific Trips. Theoretical Lectures, Small Group Discussions, and Scientific Films.	Seminars, Major reports, discussions during lectures. Written Exams, oral exams.
Topic V:اثر المرحلة الانتقالية في محاربة السياسة الاستبدادي	3, 4, 6, 7, and 9	Theoretical Lectures, Small Group Discussions,	Seminars, quizzes, discussions during lectures, Written Exams,

			oral exams.
Topic VI: الميدان النفسي والاجتماعي	3, 4, 5, 6, 7, 8, and 9	Problem Based Learning, Report Writing, Field Visits, Scientific Trips, Theoretical Lectures, Small Group Discussions, Scientific Films, and, Exploratory Work Teams.	Seminars, quizzes, Major reports, Written Exams, Home work, oral exams.
***Topic VII*:** الجرائم البيئة لحزب البعث التلوث الحربي والاشعاعي وانفجار الالغام	2, 4, 6, 7and 11	Problem Based Learning, Theoretical Lectures, Small Group Discussions.	quizzes, discussions during lectures. Written Exams, Home work.

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 Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11

assessment	**Assignments**	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.				
	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)		