



Ministry of Higher Education and
Scientific Research - Iraq
University of Baghdad
College of Science
Department of Biology



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Bacteriology		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lab.
Module Code			
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level	1	Semester of Delivery	2
Administering Department	Type Dept. Code	College	Type College Code
Module Leader	Prof. Dr. Harith Jabbar Fahad Al-Mathkhury		e-mail harith.fahad@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Professor	Module Leader's Qualification	Ph.D.
Module Tutor	Prof. Dr. Ayaid K. Zgair Prof. Dr. Ghusoon Ali Abdulhasan Assist. prof. Dr. Alyaa Razooqi Hussein Assist. prof. Dr. Marwa Hameed Alkhafaji Assist. prof. Dr. Enass Ghassan Sweedan Assist. prof. Dr. Luma Saeed Mohammed Assist. prof. Dr. Nihad Taha M. Jaddoa Lecturer: Hussam alammam. Lecturer: Zainab Zamel Khalaf assistant lecturer Ali Mohsin Ali Jassim		e-mail ayaid.zgair@sc.uobaghdad.edu.iq mailto:ghusoon.ali@sc.uobaghdad.edu.iq alyaa.razooqi@sc.uobaghdad.edu.iq mailto:marwa.alkhafaji@sc.uobaghdad.edu.iq mailto:enass.ghassan@sc.uobaghdad.edu.iq mailto:luma.saeed@sc.uobaghdad.edu.iq mailto:Nihad.jaddoa@sc.uobaghdad.edu.iq hussam.alammar@sc.uobaghdad.edu.iq zainab.alnaji@sc.uobaghdad.edu.iq ali.ali@sc.uobaghdad.edu.iq
Peer Reviewer Name	Name	e-mail	E-mail

Scientific Committee Approval Date	14/6/2023	Version Number	1.0
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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	<ol style="list-style-type: none"> Getting general information about bacteria. Understanding the technique of isolating and identification of bacteria Understanding cellular structure and metabolic mechanisms of bacteria Getting information about the genotype and phenotype of bacteria. 		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> Knowledge of the basics of bacteriology. Understanding the replication and pathogenicity mechanisms and how the bacteria infect the host. How to isolate and identify the bacteria. Knowing the bacterial infectious diseases. 		
Indicative Contents المحتويات الإرشادية	<p>In this course, the module will begin with a brief introduction outlining the module's goals, content, and evaluation criteria, as well as the learning outcomes. Following that, the module material is divided into separate themes, offering the key pathways that drive pathogenesis. In this context, we will also examine how such knowledge might help with bacterial isolation and identification, prevention, and prophylaxis ways. Laboratory sessions of a 2-hour duration will give active practice in a variety of bacterial methodologies in tandem with lecture topics.</p>		

Learning and Teaching Strategies استراتيجيات التعلم والتعليم			
Strategies	This module's contact teaching will be conducted through lecturing (15 lectures) and compulsory 15 practical sessions, which include learning videos and scientific animations. Students will be invited to participate in interactive discussions throughout this program.		
Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6

Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	86	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	17
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	6	20	2, 4, 8,10	LO #1, #2, #4
	Assignments	3	20	8	LO #4
Summative assessment	Midterm Exam	2 hr	10% (10)	8	LO #1, #2, #3
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction to bacteriology
Week 2	Structure of bacterial cells
Week 3	Cytoplasmic ultra-structures
Week 4	Microbial genetics, DNA replication
Week 5	RNA, Protein synthesis
Week 6	Microbial metabolism
Week 7	Microbial Enzymes
Week 8	Mid-Term Exam
Week 9	Microbial Growth and multiplication
Week 10	Types of bacterial culture, Growth curve
Week 11	Factors affecting growth: Temperature, Hydrostatic pressure
Week 12	Factors affecting growth: pH, Osmotic pressure, Radiation
Week 13	Nutrition of microorganisms
Week 14	Control of microbial growth by physical techniques
Week 15	Control of microbial growth by biological and chemical techniques
Week 16	Final exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Introduction to microbiology, aseptic technique safety
Week 2	The microscope
Week 3	Tools and equipment
Week 4	Culture media
Week 5	Bacterial staining ,negative stain
Week 6	Bacterial staining, Simple stain
Week 7	Differential stain, acid fast stain, Differential stain, Gram stain
Week 8	Mid-Term Exam
Week 9	Selective stain, capsule stain
Week 10	Selective stain, Spore stain
Week 11	Selective stain, Flagella stain
Week 12	Bacterial count, total count(Breed,haemocytometer,optical density
Week 13	Bacterial count, viable plate count
Week 14	Methods of culturing
Week 15	Introduction to microbiology, aseptic technique safety, and The microscope
Week 16	Final exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<ol style="list-style-type: none"> 1. Riedel, S., Morse, S., Mietzner, T., and Miller, S. (2019). Jawetz, Melnick, and Adelberg's Medical Microbiology, 28 ed. McGraw-Hill New York. 2. Trivedi, P. C., Pandey,S., Bhadauria, S. Text book of microbiology. Aavishkar Publishers, India 	No
Recommended Texts	Shors, T. (2009). Understanding viruses. 1st ed. Jones and Bartlett Publishers, Sudbury, Massachusetts, 639 pp.	No
Websites	https://www.cdc.gov ; www.who.int	

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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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Biochemistry (1)		Module Delivery
Module Type	Basic		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code			
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level	1	Semester of Delivery	
Administering Department	Department of Chemistry	College	Science College/ University of Baghdad
Module Leader	Dr. Nuha Nihad Aburahman	e-mail	noha.n@sc.uobaghdad.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 ApprovalDate	01/06/2023	Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives اهداف المادة الدراسية	Teaching the subject of biochemistry for the second stage (Department of Biological Technologies) aims : <ol style="list-style-type: none"> 1. To introduce the biochemical structure of living systems mainly dealing with biomolecules like carbohydrates, proteins, lipids, and nucleic acids. 2. To provide and display the most important foundations necessary to understand the relationship of chemistry to the functions of the body through multiple examples that depend on modern information. It also aims to clarify the chemical reactions and changes that occur within the body in normal and pathological conditions. 3. To give students basic concepts of biochemistry and its nature of interdisciplinary importance. 4. To expose students in basic biochemistry practical laboratory to see basic tools used in practical. To acquire confidence, interest, challenge and discipline laboratory behaviour in biochemistry practical. 5. The course gives an idea for the maintenance of laboratory and the practices that should be accomplished in a laboratory. The course explains how to prepare solutions and reagents, various methods of qualitative tests for proteins, carbohydrates and lipids. 6. Preparing specialists with a solid foundation in biochemical processes, to develop analytical, technical and critical thinking skills and to make them scientifically literate so as to contribute to the discipline after graduation.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p>A. Cognitive goals</p> <ol style="list-style-type: none"> 1. Studying the properties and chemical composition of vital compounds and their basic role inside the body and knowing the interactions and chemical changes. 2. Assess and relate the concepts of chemistry to biology. 3. Understand the structure and functions of fundamental mono, di and oligosaccharide and polysaccharides. Relate the basic function of nucleotides, structure of different classes of lipids and their roles in biological systems 4. Identify the structures of amino acids, their chemical properties and their organization into polypeptides and proteins. 5. The students will understand about the structure and function of nucleosides and nucleotides. 6. The course will aid the students in understanding other accessory molecules like vitamins. <p>B. The skills goals special to the program</p> On completion of the course students will be able to: <ol style="list-style-type: none"> 1. Use simple laboratory instruments for carrying out practical. 2. Do calculations based on the experiment. 3. Understand the importance of following safety measures during every practical. 4. Prepare solutions and reagents. 5. The students will equip themselves with the basic biochemistry techniques which can later applied for their laboratory research and also for many other industrial researches.
Indicative Contents المحتويات الإرشادية	<p>1. Carbohydrates: [12 hr]</p> <ul style="list-style-type: none"> • Principles, importance, and roles of carbohydrates in living organisms • Classification of carbohydrates: monosaccharides, disaccharides, oligosaccharides, and polysaccharides • Exploration of carbohydrate physical properties, including isomers, enantiomers, and projection formulas

	<p>2. Lipids: [12 hr]</p> <ul style="list-style-type: none"> • Overview of lipids, their principles, importance, and roles in living organisms • Examination of lipid properties and classification: simple, compound, and derived lipids • Understanding the significance of compound and complex lipids <p>3. Amino Acids and Proteins: [12 hr]</p> <ul style="list-style-type: none"> • Principles, importance, and roles of amino acids in living organisms • Properties and classification of amino acids: polar, nonpolar, acidic, and basic • Study of protein structure and importance: primary, secondary, tertiary, and quaternary structures <p>4. Nucleic Acids: [12 hr]</p> <ul style="list-style-type: none"> • Principles, importance, and roles of nucleic acids in living organisms • Classification of nucleic acids: purines and pyrimidines
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Learning and Teaching Strategies إستراتيجيات التعلم والتعليم	
Strategies	<p>Clarifying the scientific material through approved biochemistry books, creating electronic lectures to clarify the mechanisms and some chemical structures. Motivate students to conduct reports and research regarding the subjects they study, use modern technologies in research, and develop their research skills. Preparing some electronic courses and seminars that have a great role in educating students and constructive discussion between the student and tutor.</p>

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	92	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب اسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	58	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب اسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

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

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Carbohydrates overview : principles of carbohydrates include their important and roles in the living organisms.
Week 2	Carbohydrates classification : monosaccharides, disaccharides, oligosaccharides and polysaccharides Carbohydrates physical properties : carbohydrate isomers, enantiomers, epimers, fisher and haworth projection formula etc.
Week 3	Disaccharides: disaccharides properties, conjugation and glycosidic bond formation.
Week 4	Polysaccharides : polysaccharides properties, important and their types.
Week 5	Lipids overview : principles of lipids include their important and roles in the living organisms.
Week 6	Lipids properties and classification: simple, compound and derived lipids.
Week 7	The important of compound and complex lipids.
Week 8	Mid Term Exam
Week 9	The role of lipids in cell membrane.
Week 10	Amino acids overview : principles of amino acids include their important and roles in the living organisms.
Week 11	Amino acids properties and classification: polar, nonpolar, acidic and basic aminoacids.
Week 12	Proteins structure and important : primary, secondary, tertiary, quaternary structures.
Week 13	Protein functions and roles.
Week 14	Nucleic acids overview : principles of nucleic acids include their important and roles in the living organisms.
Week 15	Nucleic acids classification: purines and pyrimidines.

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	A comprehensive review of all calculations related to the preparation of chemical solutions, acids and bases
Week 2	Study the tests that distinguish the different types of monosaccharides
Week 3	Study the tests that distinguish the different types of disaccharides and sucrose hydrolysis
Week 4	Study the tests that distinguish the different types of polysaccharides and starch hydrolysis
Week 5	Detection the type of unknown sugar in solution (part I)
Week 6	Detection the type of unknown sugar in solution (part II)
Week 7	Study the tests that distinguish the different types of fats and fatty acids
Week 8	Study of rancidity and acid value
Week 9	Study of saponification value and iodine number
Week 10	Mid Term Exam
Week 11	Detection the type of fat in an unknown solution using of qualitative tests
Week 12	Study the tests that distinguish the different types of amino acids
Week 13	Detection of the type of amino acid in an unknown solution using qualitative tests (part I)
Week 14	Detection of the type of amino acid in an unknown solution using qualitative tests (part II)
Week 15	Detection of vitamin C in an unknown solution using volumetric test (titration)

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	- Nelson D. & Cox M., "Lehninger Principles of Biochemistry", W.H. Freeman and Company, New York, 8 th ed. 2021. -Abali EA, <i>et al.</i> "Lippincott's illustrated reviews: Biochemistry". 8 th , Wolters Kluwer Health; 2022. -Naik P. "Essentials of Biochemistry", 1 st ed. 2012. - Campbell NA and Reece JB. Biology, 9 th edition 2009.	Yes
Recommended Texts	Kennelly PJ, Botham KM, McGuinness O, Rodwell VW, Weil PA. Harper's illustrated biochemistry. McGraw Hill Professional; 32 th , 2022.	No
Websites		

Grading Scheme

مخطط الدرجات

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	General Physics		Module Delivery
Module Type	Support or related learning activity		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	COS		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level		Semester of Delivery	
Administering Department	Department of Physics	College	Science College/ University of Baghdad
Module Leader	Dr. Ali Hassan Khidhir	e-mail	ali.khidhir@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Asst. 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

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	
Co-requisites module		Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> 1. Teaching students the basic principles of physics. 2. Preparing specialists in the field of general physics and its practical applications, which bears the responsibility of studying the country's need for development and progress and capable of meeting the needs of the job market in state institutions and industry sectors. 3. Preparing an educated generation armed with science and adopts it as a sound basis to bring about radical changes and assign scientific knowledge and scientific methods in thinking, analysis and adaptation with the development of technologies, to keep up with the expansion of human needs. 4. Effective contribution for deepening and documenting the connection of the university with the society through the implementation of advisory counseling, training and development of teaching and administrative staff. 5. The service of preparing graduates specialized in physics who contribute to development in the country. 6. Meeting the needs of various sectors with highly qualified personals in the field of physics. 7. Encouraging the distinguished in this field to work as teaching assistants in the department to be part of the academic teaching staff in the future.
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1- enable students to obtain knowledge and understanding of the concept of physics. 2- Enable students to obtain knowledge and understanding of the scientific laws of physics. 3- Enable students to keep pace with scientific development in all scientific fields of physics.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>This course contains a lot of vocabulary, which is a branch of physics concerned with and properties of matter and energy.</p> <p>It includes an introduction to understanding natural phenomena, the forces and movement affecting their course, and the formulation of knowledge into laws that do not only explain the aforementioned processes, but also predict the course of natural processes with model gradually approach reality.</p> <p>The topic of general physics includes an introduction to physics, vector analysis, Newton's laws in linear motion, circular motion, and rotational motion. Also, gravitational force, work, torque, angular momentum, laws of motion with constant or uniform acceleration of linear and rotational motion, dynamic fluids, static fluids, particle stability, electric charge, electric field and electric potential in electrical circuits and ray optics.</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

<p>Strategies</p>	<p>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</p>
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	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.
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Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	61	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

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

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	A brief summary of the vectors, scalar and vector quantities, addition of vectors, unit vector, component of vectors, dot product and cross product. With examples for all these topics.
Week 2	Motion on a straight line: Displacement, Average velocity, Instantaneous velocity, Average acceleration, and Instantaneous acceleration. With examples for all these topics.
Week 3	Application of Motion with a constant acceleration: Freely falling bodies, and Projectile of motion. With examples for all these topics.
Week 4	Equilibrium of a particle: Understanding of forces, Newton's first law, Newton's second law, Newton's third law, and mass and weight. With examples for all these topics.

Week 5	Friction force, inclined plane, Torque of force, Center of gravity of the body, Center of mass, Motion of a system of particle, and Newton's law of universal gravitation. With examples for all these topics.
Week 6	Circular and Rotational motion: Motion in a circle, uniform circular motion, central or radial force, non-uniform circular motion, Central or radial acceleration, Central force, tangential acceleration, and tension in circular motion. With examples for all these topics.
Week 7	Rotational motion, angular displacement, angular velocity, and angular acceleration. With examples for all these topics.
Week 8	Midterm exam
Week 9	Rotational motion with a constant angular acceleration, relation between angular and linear velocity and acceleration, torque, angular acceleration, and moment of inertia. With examples for all these topics.
Week 10	Elasticity: The stress and strain, elastic modulus, Hook's law, tensile and compressive stress and strain, Young's modulus, bulk stress and strain, bulk modulus, compressibility, shear stress and strain, Poisson's ratio, and force constant. With examples for all these topics.
Week 11	Static fluids: Density, specific gravity, pressure in a fluid, atmospheric pressure, pressure-depth-Pascal's law, buoyancy, Archimedes principle, and define the surface tension. With examples for all these topics.
Week 12	Dynamic fluids: Ideal fluid, the continuity equation, Bernoulli's equation, Venturi meter, and define the viscosity. With examples for all these topics.
Week 13	Electric charge and electric field: Conductor, insulator, and induced charges. Coulomb's law, electric field, intensity of electric field, electric potential energy, electric potential energy in a uniform field, electric potential energy of two point charges, potential difference, potential gradient, equipotential surfaces, and electric potential. With examples for all these topics.
Week 14	Geometric optics: Nature and propagation of light, wave front, properties of light, types of reflection, index of refraction, laws of reflection and refraction, total internal reflection, real and apparent depth, refraction by prism.
Week 15	mirrors & lenses: Spherical mirrors, image formations, spherical aberration, types of simple lenses, converging lens, diverging lens, properties of lenses, image formation by thin lenses,
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Moment of inertia for flywheel
Week 2	Simple pendulum
Week 3	Surface tension
Week 4	Speed of sound
Week 5	Glass refractive index
Week 6	diffraction grating
Week 7	Equilibrium forces

Week 8	Mid. term exam.
Week 9	Ohm's law
Week 10	Viscosity
Week 11	Wheatstone bridge
Week 12	inclined plane
Week 13	Archimedes principle
Week 14	focal length of the lens
Week 15	standing waves
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Fundamental of Physics (Halliday, Resnick, and Walker).	Yes
Recommended Texts		
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
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	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 - Iraq
University of Baghdad
College of Science
Department of Biology



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Biosafety and Biosecurity		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lab
Module Code			
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level	1	Semester of Delivery	
Administering Department	Biology	College	Science
Module Leader	Faiza Kadhim Emran	e-mail	Faiza.kadhim@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Assist.Professor	Module Leader's Qualification	Ph.D.
Module Tutor	/	e-mail	/
Peer Reviewer Name	/	e-mail	/
Scientific Committee Approval Date	14/6/2023	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 Aims أهداف المادة الدراسية	The student learns the basic concepts in safety and biosecurity, the student learns how to deal with laboratory materials, biological devices and equipment, the student learns how infection and pathogens are transmitted and how to deal with them with care, the student learns how to protect himself and his colleagues by following the international guidelines for safety and biosecurity, Teaching the student the ethics of scientific research and not disclosing important information
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none">1. The student learns what safety and biosecurity.2. the student learns how to use instrument carefully and protect himself by following the guiding rules.3. dealing with biological materials and wearing special laboratory clothes4. Identifying the local and international guiding rules and how to apply them with caution through the use of the projector.
Indicative Contents المحتويات الإرشادية	Knowing the local and international guidelines and how to apply them with caution, guiding the student and developing his desire for specialization, expanding the student's ability to understand biosafety laws, dealing with biological materials professionally, safely and ethically, not dealing with any party outside the laboratory or scientific institution.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	The use of modern projectors and films, the use of drawings and charts on the board, the use of PowerPoint to present information, written tests, Ask intellectual questions during the lecture
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Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	18	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	1
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	42	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	10	20	1, 3, 5, 8, 11, 12, 13, 14, 15	All
	Assignments	7	20	2, 4, 6, 8, 9, 10,12	All
Summative assessment	Midterm Exam	2 hr.	10% (10)	8	LO #1, #2, #3
	Final Exam	3 hrs.	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Occupational Safety and Health, Biosafety, Technical Definitions, Biological waste
Week 2	Treatment and drainage methods, Mitigation and drainage
Week 3	Procedures and methods of trading and dealing with laboratory waste

Week 4	The responsibility of management in achieving safety at work sites
Week 5	Why we need Biosafety? What is Biosecurity? Biosafety is related to several fields, Biosafety containment levels
Week 6	Biohazard Symbol, Biosafety Issues, What are biological hazards?
Week 7	Biohazards Materials, Types of pathogens, Biohazardous Materials
Week 8	Mid term exam
Week 9	Control of biological hazards, Methods of control biological hazards
Week 10	Biological Agent, Standard Microbiological Practices
Week 11	Biological Safety Cabinets (BSCs), Biohazardous Waste Containers, Transportation
Week 12	Some factors influencing biosecurity, What are the Biosecurity hazards?
Week 13	Biosecurity in laboratories, Laboratory Risks, A Biosecurity Risk Assessment and Management Process
Week 14	Biosecurity risks, Laboratory biosecurity program , The Virtual Biosecurity Center (VBC)
Week 15	Responsibility for VBM (Valuable Biological Material), Elements of a Strong Biosecurity Program
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Salerno, R.M and Gaudio, J. Laboratory Biosecurity Handbook , CRC Press. 2007	No
Recommended Texts	Harding, A.L., and Brandt Byers, K. Epidemiology of laboratory-associated infections . In: Fleming, D.O., and Hunt, D.L. Biological safety: principles and practices. Washington, DC: ASM Press, 2000;35-54	No
Websites	Salerno, R.M and Gaudio, J. Laboratory Biosecurity Handbook , CRC Press. 2007	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors

	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Computer Skills I		Module Delivery
Module Type	Basic		<input type="checkbox"/> Theory
Module Code			<input type="checkbox"/> Lecture
ECTS Credits	3		<input checked="" type="checkbox"/> Lab
SWL (hr/sem)	75		<input type="checkbox"/> Tutorial
			<input type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	1	Semester of Delivery	
Administering Department	Computer Science	College	College of Science
Module Leader	Mela Ghazi Abdul-Haleem	e-mail	a.mela@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	M.Sc
Module Tutor		e-mail	
Peer Reviewer Name	Dr. Assmaa A. Fahad	e-mail	Assmaa.fahad@sc.uobaghdad.edu.iq
Scientific Committee Approval Date	11-6-2023	Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	<ul style="list-style-type: none">This module sets out essential concepts and skills relating to the use of devices.This module covers the key skills and main concepts relating to computers, devices, file creation and management, web browsing, and data security.Help students to demonstrate the ability to use word processing

	<p>application to accomplish everyday tasks associated with creating, formatting, finishing small-sized word processing documents, such as letters and other everyday documents.</p> <ul style="list-style-type: none"> • Help students to demonstrate the ability to use a power point application to accomplish tasks associated with creating, and formatting a presentation. • Help students to demonstrate the ability to use Excel application to accomplish a spreadsheet for tasks.
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>Upon successful completion of the course, a student will be able to:</p> <ol style="list-style-type: none"> 1. Understand 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.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Indicative content includes the following:</p> <ul style="list-style-type: none"> - 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 consists of (CPU, Motherboard, RAM, Ports, Hard disk ...). - Central Processing Unit: ALU, CU, and memory unit. - Memory and its Types <ul style="list-style-type: none"> ▪ 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 <ul style="list-style-type: none"> Types of Software <ul style="list-style-type: none"> ▪ 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

	<p>engine)</p> <ul style="list-style-type: none"> - 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 <p>Introduction to windows</p> <ul style="list-style-type: none"> - Desktop Components: (Icons, Start, task bar ...) - The start menu (its functions and properties) <p>...</p>
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>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. Different forms of teaching will be used to reach the objective of this module, including power point presentation for the subjects which contains titles, definitions, summary and conclusions, whiteboard will be used and classroom discussion with assignments, the students will be asked to prepare papers on selective topics.</p>

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	62	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	13	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation

تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي

	Material Covered
Week 1	Introduction to Computers – definition -The purposes of using a computer. -The general purpose computer model. -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 properties
Week 3	- Memory and its Types <ul style="list-style-type: none"> ▪ Cache Memory ▪ Primary memory –Comparison between RAM & ROM ▪ Secondary Storage Windows: - Files and Folders: All operations on files and folders (selection, creation, saving, moving and renaming.
Week 4	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 5	<ul style="list-style-type: none"> - Software Types of Software <ul style="list-style-type: none"> ▪ Operating System ▪ Application Software & their types Programming Languages Windows: <ul style="list-style-type: none"> -Customizing the desktop. -Change screen resolution. - Change Desktop Background
Week 6	<ul style="list-style-type: none"> - Communication Technology - E-mail Windows: <ul style="list-style-type: none"> - Print Screen - Cleaning Up the Disk - Defragmenting the Disk Quiz (1, 2, 3, 4, 5) -Windows only
Week 7	<ul style="list-style-type: none"> - 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 8	Mid Exam
Week 9	<ul style="list-style-type: none"> Microsoft Word <ul style="list-style-type: none"> - Word Program Interface -Keyboard Shortcuts in Microsoft Word -The operations on Text - File Menu Home Tab & it commands - Insert Tab (Pages & tables Groups) - Table Tools
Week 10	<ul style="list-style-type: none"> Microsoft Word <ul style="list-style-type: none"> - Insert Tab (Illustrations, Header & Footer, Text and Symbols Groups) - Page Layout, References, Review Tabs Quiz (Week 8, 9)
Week 11	<ul style="list-style-type: none"> Microsoft PowerPoint <ul style="list-style-type: none"> - PowerPoint program Interface. - File Menu - Home Tab & it commands - Operations on the Slides (duplicate, Delete, and Move)
Week 12	<ul style="list-style-type: none"> Microsoft PowerPoint <ul style="list-style-type: none"> - Insert Tab, Design Tab, Slide Show Tab and their commands - Transitions, and Animations Tabs
Week 13	<ul style="list-style-type: none"> Microsoft Excel <ul style="list-style-type: none"> - File Menu, Home Tab & it commands
Week 14	<ul style="list-style-type: none"> Microsoft Excel <ul style="list-style-type: none"> - Excel Worksheet Basics - Cell format
Week 15	Preparatory Week
Week 16	Final Exam

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. M. E. Vermaat and G. B. Shelly, <i>Discovering Computers Fundamentals: Living in a Digital World</i> , Shelly Cashman, 2011 Edition. 2. J. Lambert, J. Cox , and C. Frye, <i>Microsoft Office Professional 2010 Step by Step</i> , 1'st Edition, Microsoft Press, 2010, 152P.	E-Copy
Recommended Texts	D. Hajek and C. Herrera, <i>Introduction to Computers 2022 Edition</i> , Independently published, May 19, 2022, 255P.	NO
Websites	1. https://theictbook.com/components-of-the-system-unit-and-their-functions/ 2. https://www.tutorialspoint.com/computer_fundamentals/index.htm 3. https://www.slideshare.net/Jamjolojessa/types-of-application-software?from_action=sav 4. https://www.bbc.co.uk/bitesize/guides/zbfny4j/revision/1 5. https://generalnote.com/Computer-Fundamental/ 6. https://edu.gcfglobal.org/en/word2010/# 7. https://edu.gcfglobal.org/en/powerpoint2010/# 8. https://edu.gcfglobal.org/en/excel2010/# 9. https://antivirus.comodo.com/blog/computer-safety/what-is-antivirus 10. https://thingscouplesdo.com/what-is-the-antivirus-software-that-is-best-for-a-user	

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
<p>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.</p>				



Ministry of Higher Education and
Scientific Research - Iraq
University of Baghdad
College of Science
Department of Biology



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Cytology		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lab.
Module Code			
ECTS Credits	8		
SWL (hr/sem)	200		
Module Level	1	Semester of Delivery	2
Administering Department	Type Dept. Code	College	Type College Code
Module Leader	Rakad Mohammed Khamas	e-mail	rakad.aljumaily@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Assistant Professor	Module Leader's Qualification	Ph.D.
Module Tutor	Assist. Prof. Dr. Fadhel Mohammed Lafta Assist. prof.Dr.Rasha Kareem Mohammed Lect. Dr. Zainab khidhair Hussain Lect. Dr. Suraa AL-Saffar Lect. Dr. Sura Munaf Lect. Dr. Hind Jabbar Lctr. Dr. Aliaa Abdul Aziz Hammed Lect.Dr. Lualuaa Saad Zaki Biol. Osama Ismail Awad Ali Asher Salah Israa Muhammad Mubarak Ali	e-mail	fafhellafta@sc.uobaghdad.edu.iq rasha.Kareem@sc.uobaghdad.edu.iq Zainab. Khidhair@sc.uobaghdad.edu.iq suraa.alsaffar@sc.uobaghdad.edu.iq sura.munaf@sc.uobaghdad.edu.iq hind.akram1102@sc.uobaghdad.edu.iq Aliaa.a@sc.uobaghdad.edu.iq lulua.s@sc.uobaghdad.edu.iq osamaismail80@gmail.com Aliazhersalah13@gmail.com Israa.Ali@sc.uobaghdad.edu.iq
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	14/6/2023	Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. This module will provide an introduction to the structure, function and diversity of eukaryote cells. 2. The main methods of studying cells will be first outlined and will cover topics such as cell fractionation, organelle purification and various microscopic techniques. 3. The following organelle systems will be described: cell membranes, the nucleus and cell cycle; the cytoskeleton and its cellular functions; the cellular endomembrane system and exo- and endocytosis and their role in cell function.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1. Knowledge about the basics chemical structures of cellular components. 2. Understanding how cell organelles perform their function. 3. How cells become specialised during the development of multicellular organisms. 4. Knowing how cells are reproduced and proliferated by understanding the key events of cell cycle.
Indicative Contents المحتويات الإرشادية	<p>The module will begin with a brief introduction outlining the module's goals, content, and evaluation criteria, as well as the learning outcomes. Following that, the module material is divided into separate themes, offering details for the most relevant cytological concepts. In this context, we will also examine how such knowledge might help understanding cellular components and their functions. Laboratory sessions of 2-hours duration will give active practice in a variety of cytological aspects and techniques in tandem with lecture topics.</p>

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>This module's contact teaching will be conducted through lecturing (15 lectures) and compulsory 15 practical sessions, which include learning videos and scientific animations. Students will be invited to participate in interactive discussion throughout this program.</p>

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

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	111	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	19
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	20	2, 4, 6	LO #1, #2
	Assignments	1	20	7	LO #4
Summative assessment	Midterm Exam	2 hr	10% (10)	8	LO #1, #2, #3
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	The Cell : An Overview
Week 2	Prokaryotic and Eukaryotic Cells
Week 3	The Living Cellular Components
Week 4	The Non-living Cellular Inclusions
Week 5	The Chemistry of Life
Week 6	Cytoskeleton
Week 7	Membrane Transport Mechanisms
Week 8	Mid-Term exam
Week 9	Energy-releasing pathways (Cellular Respiration)
Week 10	Replication of DNA
Week 11	Protein Synthesis
Week 12	Cell Division-Mitosis

Week 13	Cell Division-Meiosis
Week 14	Replication of DNA
Week 15	Cytogenetics
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Materials Covered
Week 1	Course induction, introduction, and lab Safety Guidelines
Week 2	Light Microscopes
Week 3	Electron Microscopes
Week 4	Compound Light Microscope Calibration
Week 5	Living Cellular Components 1
Week 6	Living Cellular Components 2
Week 7	Non-Living Cellular Components1
Week 8	Mid-Term Exam
Week 9	Non-Living Cellular Components1
Week 10	Cell Shape and Size
Week 11	Cell Cycle- Cell Division-Mitosis
Week 12	Cell Cycle- Cell Division-Meiosis
Week 13	Cytogenetics
Week 14	Plant Cytogenetics
Week 15	Human and Cancer cytogenetic
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?

Required Texts	<ol style="list-style-type: none"> 1. George Plopper, David Sharp, Eric Sikorski (2015) Lewin's cells. — 3rd ed. Jones & Bartlett Learning. 2. Alberts, Bruce, Hopkin, Karen, Johnson, Alexander D., Morgan, David, Raff, Martin, Roberts, Keith, Walter, Peter. (2018). Essential Cell Biology: Fifth International Student Edition. W.W. Norton & Company, 	No
Recommended Texts	Edmund S. Cibas & Barbara S. Ducatman (2021). Cytology, 5th Edition. Elsevier Publishing Company	No
Websites	https://www.cytology-iac.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
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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.				



Ministry of Higher Education and
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Department of Biology



MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	HUMAN RIGHTS & DEMOCRACY		Module Delivery	
Module Type	BASIC		X Theory Lecture Tutorial Seminar	
Module Code				
ECTS Credits	2			
SWL (hr/sem)	50			
Module Level	1	Semester of Delivery		1
Administering Department	Type Dept. Code	College	Type College Code	
Module Leader	Ansam Faik Abdul - Rezzak Al-Obidi		e-mail	ansam.faik@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	M.Sc.	
Module Tutor	None	e-mail	None	
Peer Reviewer Name		e-mail		
Review Committee Approval	8/06/2023	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 Aims أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. This course deals with the basic concept of human rights & democracy 2. Clarifying and training students on the most important principles of human rights and democracy. 3. Organizing discussions and presentations on the most vital and basic topics affecting community building, related to human rights and democracy.. 4. Adopting teamwork with students to develop their cognitive abilities and create a spirit of cooperation, initiative, creativity and exchange of views in an effort to build the foundations of peaceful community coexistence. 5. Providing society with conscious youth aware of the importance of its role in building society, its unity and cohesion through spreading the culture of human rights and establishing the rules of correct democracy. 6. Human rights guarantee the protection and respect of an individual's interests, even when he or she is not a majority. In a democratic climate, sustainable democratic power cannot be conceived without respecting, protecting and fulfilling human rights. Through their combined influence, they allow the individual a life based on the freedom of self-determination and collective. That is why the protection and realization of human rights truly form the basis of the democratic project. 		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p style="text-align: center;">Cognitive goals.</p> <ol style="list-style-type: none"> 1. Educate students and inform them about the importance of human rights and democracy. 2. Recognize and understand the methods of teamwork for the exchange of ideas and creative discussions 3. Developing students' performance through guidance in preparing mini-research on modern vocabulary on vital topics related to human rights and democracy. 4. Providing students with creative development abilities in modern proposals and creative developmental ideas by discussing awareness videos presented on electronic classes. 5. Developing the skills of sharing opinions and ideas and respecting others opinion. 6. Objective Skills : 7. Basic knowledge in the principles of human rights and democracy. 		

	<p>8. Building the innovative personality of knowledge through online research and the transfer and exchange of information.</p> <p>9. Discuss the various properties about everything related to human rights and their importance in our daily lives.</p> <p>10. Identify everything related to democracy and the foundations of the performance of the electoral process and its importance in building the nation.</p> <p>11. Identify the capacitor and inductor phasor relationship with respect to voltage and current.</p>
<p>Indicative Contents المحتويات الإرشادية</p>	<ul style="list-style-type: none"> - Developing the student's analytical and critical skills regarding the reality and future of human rights and democracy - Training the student on the importance of active participation in aspects of public life, such as promoting respect for the principles of public human rights and active participation in political and cultural life. - Enable students to understand the importance of education and its role in spreading the culture of human rights and democracy in building a civilized society based on good governance, the most important component of which is belief in human rights, education and active participation in governance through free and fair elections.
<p>Learning and Teaching Strategies استراتيجيات التعلم والتعليم</p>	
<p>Strategies</p>	<p>The main strategy that will be adopted in delivering this module is to encourage students' participation in the discussions, dialogues and group work lectures & exercises, while at the same time refining and expanding their critical thinking skills. There are many teaching and learning methods used, and the most important of these methods are: Theoretical lecture, discussion and dialogue, panel discussions on certain topics, theoretical student research</p> <p>Library and electronic activities (which helps students to reach the following results:</p> <ol style="list-style-type: none"> 1- The scientific ability to distinguish between correct information and wrong information. 2- Ease of scientific drafting and ease of correction. 3. Ability to memorize and guess. 4- The ability to link concepts and principles with reality. 5. Ability to invoke, link, interpret.

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 أسبوعياً	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	1.25
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

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
	Attending lectures	1	1%	1.5	41#15 weeks
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	Midterm Exam	2 hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري مادة حقوق الإنسان و الديمقراطية

	Material Covered	<u>Human rights & Democracy</u>
Week 1	Familiarity with the concept of human rights and the definitions approaching it, discussing, dismantling and criticizing them in a scientific way in order to reach the most accurate and objective. - Definition of right , of human, of the concept of human rights. Human rights qualities, Types of human rights Human Rights Categories	
Week 2	The historical development of human rights: Orcagina Reforms 1- Urnamo Law.2- The law of Ishtar Bit. 3- The law of the Kingdom of Eshnuna.4- Code of Hammurabi.	
Week 3	Human rights in other ancient civilizations: 1- Indian and Chinese civilization 2- Pharaonic civilization of Egypt 3- Greek civilization 4- Roman civilization	
Week 4	Human rights in heavenly laws Human Rights in Judaism, Human rights in Christianity, Human Rights in Islam.	
Week 5	Human rights in Renaissance - modern and contemporary societies Introducing the student to the most important UN document in the field of human rights, which was approved and approved by the Assembly on January 10, 1948	

	Universal Declaration of Human Rights 1948.
Week 6	Non-governmental organizations defending human rights: Amnesty International, b. International Committee of the Red Cross. Arab Organization for Human Rights.
Week 7	Definition of the phenomenon of administrative corruption, Types of administrative corruption, Causes of administrative corruption. The repercussions of the phenomenon of administrative corruption on human rights and society. Successful treatments to combat corruption and protect society from it.
Week 8	Introduction - Historical development of the concept of <u>democracy</u>, definition of democracy, freedom. The difference between freedom and democracy, The relationship between the rights and public freedoms of individuals and democracy, Islamic views in a democratic system of government , Shura and Democratic System
Week 9	Specifications and duties of the Islamic ruler reading, The era of Imam Ali "peace be upon him" to his governor over Egypt: Specifications of the Islamic ruler: First: The moral and doctrinal components of the ruler Second: The general culture of the Islamic ruler, Third: Acumen and good choice: -Fourth: Direct relationship with people: Fourth: Direct relationship with people. Duties of the Islamic ruler: First: Social Reform: Second: Achieving security and defense Third: The architecture of the country "economic development"
Week 10	Forms of democracy: (1): Direct democracy ,(2): Semi-direct democracy , (3): Parliamentary democracy (parliamentary representation)4): Liberal Democracy (5): consociation Democracy, (6): Delegated Democracy.
Week 11	Conditions for the success of the elements and pillars of the democratic system General conditions for the success of the democratic system: 1. Respect for human rights, 2. Political pluralism 3. Peaceful transfer of power 4. Political equality 5. Respect the principle of the majority 6. Existence of the rule of law.
Week 12	Components or elements of democracy: 1 - Citizenship 2- Political participation 3. Elections 4. MPs and Responsibility 5. Opposition 6- Separation of government and parliament 7- Constitutional legitimacy
Week 13	The concept of elections and their legal adaptation: First: The concept of election Second: Legal adaptation of the Election, Third: Conditions of Election, Fourth: Concepts of Elections, Fifth: Types of Electoral Systems. Assessing the Democratic System, Pros and advantages of the democratic system, Disadvantages and disadvantages of the democratic system, Implementing the democratic system in Iraq.
Week 14	Lobbyists: First: the concept and definition. Second: Types of pressure groups. Third: The methods of pressure groups that they use to achieve their goals. Fourth: Lobbying and Democracy.
Week 15	Preparatory Week
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Martyrdom verses from the Holy Quran Mohammed Al-Tarawneh et al., International Humanitarian Law, ICRC, Amman, 2005 Diamond Larry, Democracy: Its Development and Ways to Enhance It, translated by Fawzia Naji, Dar Al-Mamoun for Translation, Iraq, 2005.	Yes
Recommended Texts	journal.un.org Hadi, Riad Azabz. (2005). Human rights (evolving contents and protection) (Baghdad).	Yes
Websites	<u>Universal Declaration of Human Rights United Nations</u> https://sc.uobaghdad.edu.iq/?page_id=8415 https://www.youtube.com/@ansamalobidimanagerofhuman2891	

APPENDIX:

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	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note:

NB 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 - Iraq
University of Baghdad
College of Science
Department of Biology



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	General Biology		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lab.
Module Code			
ECTS Credits	8		
SWL (hr/sem)	200		
Module Level	1	Semester of Delivery	1
Administering Department	Type Dept. Code	College	Type College Code
Module Leader	Rakad Mohammed Khamas	e-mail	rakad.aljumaily@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Assistant Professor	Module Leader's Qualification	Ph.D.
Module Tutor	Assist. Prof. Dr. Fadhel Mohammed Lafta Assist. prof.Dr.Rasha Kareem Mohammed Lect. Dr. Zainab khidhair Hussain Lect. Dr. Suraa AL-Saffar Lect. Dr. Hind Jabbar Lctr. Dr. Aliaa Abdul Aziz Hammed Dr. Fatema Ali Al Fatle Biol. Osama Ismail Awad Israa Muhammad Mubarak Ali	e-mail	fafhellaftha@sc.uobaghdad.edu.iq rasha.Kareem@sc.uobaghdad.edu.iq Zainab.Khidhair@sc.uobaghdad.edu.iq suraa.alsaffar@sc.uobaghdad.edu.iq hind.akram1102@sc.uobaghdad.edu.iq Aliaa.a@sc.uobaghdad.edu.iq atima.ali@sc.uobaghdad.edu.iq osamaismail80@gmail.com Israa.Ali@sc.uobaghdad.edu.iq
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	14/6/2023	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 Aims أهداف المادة الدراسية	<p>Upon successful completion of the module a student will be able to:</p> <ol style="list-style-type: none">1. Discuss the basic features of prokaryotic and eukaryotic cells and, at a basic level, the evolutionary relationships between the main kingdoms.2. Explain the characteristics and roles of the basic molecules of life and demonstrate an understanding of the biochemistry that governs their interactions.3. Describe the structure of different types of cells and explain the relationships between these structures and the specialized functions of cells and their components
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none">1. Knowledge about the basics features of prokaryotic and eukaryotic cells.2. Introduce students to the fundamental biological principles which are necessary for the undergraduate students3. Areas covered include: the evolutionary tree of life, molecular biology and biochemistry; cell biology.4. Knowing the most important relationships between the main kingdoms.
Indicative Contents المحتويات الإرشادية	<p>The module will begin with a brief introduction outlining the module's goals, content, and evaluation criteria, as well as the learning outcomes. Following that, the module material is divided into separate themes, offering details for the most relevant biology concepts. In this context, we will explain the characteristics and roles of the basic molecules of life and demonstrate an understanding of the biochemistry that governs their interactions and their functions. Laboratory sessions of 2-hours duration will give active practice in a variety of biology aspects and techniques in tandem with lecture topics.</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	<p>This module's contact teaching will be conducted through lecturing (15 lectures) and compulsory 15 practical sessions, which include learning videos and scientific animations. Students will be invited to participate in interactive discussion throughout this program.</p>
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	136	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	29
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	20	2, 4, 6	LO #1, #2
	Assignments	1	20	8	LO #4
Summative assessment	Midterm Exam	2 hr	10% (10)	8	LO #1, #2, #3
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Course introduction; What is biology?
Week 2	The nature of life
Week 3	Carbon and the Molecular Diversity of Life
Week 4	Patterns and processes of evolution
Week 5	Energy and Metabolism
Week 6	Cellular Reproduction
Week 7	Genes and heredity
Week 8	Mid-term Exam
Week 9	Taxonomy and Systematics of the organisms
Week 10	Animals Kingdom
Week 11	Plant Kingdom

Week 12	Prokaryotes and Viruses
Week 13	Protists
Week 14	Fungi
Week 15	Behavioral Biology
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Materials Covered
Week 1	Course induction, introduction, and lab Safety Guidelines
Week 2	Light and Electron Microscopy
Week 3	Eukaryotic Cells
Week 4	Shapes and types of animal cells
Week 5	Animal tissues 1
Week 6	Animal tissues 2
Week 7	Plant cells structure 1
Week 8	Mid-Term exam
Week 9	Plant cells structure 2
Week 10	Cell Division
Week 11	Prokaryotic Cells: Viruses, Oil Immersion Microscopy
Week 12	Bacterial Morphology, The Gram Stain
Week 13	The Protozoa
Week 14	Classification of the animal kingdom
Week 15	Classification of the plant kingdom
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?

Required Texts	1. Sadava et al. (2011) Life: The Science of Biology, Ninth Edition. 2. SUBACZ, K. & CHRISTIAN, J. 2019. General Zoology Laboratory Manual.	No
Recommended Texts	Darrell S. and Randy Moore (2023). Biology Laboratory Manual, Thirteenth Edition. Published by McGraw Hill LLC.	No
Websites	https://upload.wikimedia.org/wikipedia/commons/4/40/GeneralBiology.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
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
<p>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.</p>				



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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	General Chemistry	Module Delivery	
Module Type	Core	Theory Lab	
Module Code	Bio		
ECTS Credits	8		
SWL (hr/sem)	200		
Module Level	1		
Administering Department	Department of Biology	College	Science College/ University of Baghdad
Module Leader	Dr. Bahaa Malik Altahir Dr. Zainab Amer Sallal	e-mail	bahaa.malik@sc.uobaghdad.edu.iq zainab.sallal1105@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Ass. professor	Module Leader's Qualification	Ph.D.
Module Tutor		e-mail	
Peer Reviewer Name	Dr. Bahaa Malik Altahir	e-mail	E-mail bahaa.malik@sc.uobaghdad.edu.iq
Scientific Committee ApprovalDate	12/06/2023	Version Number	1

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

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none">1. Provide students with a thorough understanding of the guiding concepts that volumetric analysis, quantitative analysis approaches, and organic chemistry are based on.2. Develop experts in general chemistry and its practical applications to equip them to meet the country's industrial and developmental needs.3. Foster a scientifically literate generation that recognizes the value of science as a catalyst for transformative change. This includes cultivating critical thinking skills, promoting analytical thinking, and facilitating adaptability to evolving technologies and societal demands.4. Strengthen the connection between the university and society by offering advisory counseling, training programs, and professional development opportunities for faculty and staff, ensuring that academic knowledge is effectively applied to real-world contexts.5. Contribute to the country's overall progress by producing chemistry graduates who possess the skills and knowledge to actively contribute to its development.6. Address the increasing demand for highly qualified professionals in various sectors that require specialized expertise in chemistry.7. Encourage exceptional students to serve as teaching assistants within the department, nurturing their potential to become future members of the academic teaching staff and fostering the growth of a knowledgeable and skilled workforce.
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>A. Cognitive goals</p> <ol style="list-style-type: none">1- Establish an excellent basis for the discipline by introducing students to the core concepts of volumetric analysis, quantitative analytic techniques, and organic chemistry.2- Encourage students' comprehension of titration's theoretical underpinnings and practical applications so they can successfully detect both inorganic and organic substances.3- Provide students with a comprehensive knowledge of volumetric analysis, with a specific focus on titration, and its extensive range of applications in various scientific disciplines.4- Equip students with the necessary knowledge and skills to proficiently apply classical quantitative analytical methods in diverse laboratory environments. <p>B. The skills goals special to the program</p> <ol style="list-style-type: none">1- Enhance students' research skills by encouraging them to engage in scientific exploration and facilitating constructive discussions where informed opinions are shared.2- Develop proficiency in the use and development of laboratory techniques and equipment, enabling students to conduct experiments effectively and obtain accurate results.3- Cultivate critical thinking skills that allow students to analyze and solve scientific problems related to the laws of chemistry, promoting a deeper understanding of the subject.4- Foster the development of practical skills and the ability to apply theoretical and empirical scientific knowledge gained through their studies in real-life situations, taking into account industrial and commercial constraints.

Indicative Contents المحتويات الإرشادية	<p>The purpose of the course is to give students a thorough understanding of conventional titration techniques in analytical chemistry. It covers the fundamental principles of acid/base titration, complexometric titration, redox titration, and precipitation titration. Students will delve into the theory behind these methods and explore their wide-ranging applications. In addition to theoretical knowledge, the course emphasizes practical skills. Students will learn how to calculate pH values for various acids, bases, salts, and buffers, enabling them to make accurate determinations in real-world scenarios. They will also develop the ability to evaluate and interpret the results obtained from titration experiments, enhancing their analytical capabilities. Throughout the course, selected classical quantitative analytical methods will be highlighted, giving students a deeper understanding of their importance and practical use. By the end of the course, students will have gained the necessary knowledge and skills to apply classical titration methods effectively in analytical chemistry, both in theory and practice.</p> <p>Indicative content includes the following.</p> <ol style="list-style-type: none"> 1. Structural isomers and structures of alkanes; physical and chemical properties of alkanes, alkenes, and alkynes. 2. Terminology, essential ideas, and some basics of organic chemistry. 3. Basic reactions of alkanes, alkenes, alkynes, and cyclic compounds. 4. Naming and classification of organic compounds.
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Learning and Teaching Strategies

إستراتيجيات التعلم والتعليم

Strategies	<p>The module will be conducted in a student-centered manner with a focus on developing critical thinking abilities and active involvement. Through a combination of classes, interactive tutorials, and purposeful experiments, students will be actively engaged in the learning process, fostering the development of their critical thinking abilities. The aim is to create an interactive and dynamic learning environment that encourages students to actively participate, think critically, and attain a profound comprehension of the subject matter. By adopting this strategy, students will have the opportunity to apply their knowledge, engage in analytical discussions, and enhance their overall learning experience.</p>
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Student Workload (SWL)

الحمل الدراسي للطالب المحسوب ١٥ أسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	136	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation

تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week no.	Material Covered
Week 1	Introduction to analytical chemistry, preparing solutions, and methods for the expression of concentration
Week 2	Volumetric analysis, volumetric analysis reaction types, volumetric calculations
Week 3	Ionic equilibria, the hydrogen-ion exponent (pH), hydrolysis
Week 4	Titration curves, titration of a solution of strong acid with a strong base, titration of solutions of weak acid or bases, acid-base indicators, titration with strong acid for one base, or a mixture of two bases
Week 5	Gravimetric methods of analysis, types of gravimetric methods, and calculation of results from gravimetric data
Week 6	Instrumental methods, instrumental methods of analysis, spectroscopic Instruments, filter photometer
Week 7	Introduction to organic chemistry - structure and properties
Week 8	Mid-term exam
Week 9	Alkanes - Structure and nomenclature
Week 10	Alkanes - Preparation and reactions
Week 11	Alkenes - Structure, geometric isomers and nomenclature
Week 12	Alkenes - Preparation and reactions
Week 13	Alkynes - Structure and nomenclature
Week 14	Alkynes - Preparation and reactions
Week 15	Mid-term exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

Week no.	Material Covered
Week 1	Learn about laboratory tools and equipment and how to use them
Week 2	Learn the principles of descriptive analysis and the descriptive interactions of the first group of ions
Week 3	A test on the analysis of information samples for the first group, based on the descriptive analysis
Week 4	A test on the analysis of the anonymous samples of the first group, based on the descriptive analysis
Week 5	Characteristic descriptive interactions of the second group of ions

Week 6	A test on the analysis of the known samples from the second group
Week 7	A test on the analysis of anonymous samples of the second group
Week 8	Safety guidelines in the organic chemistry laboratory
Week 9	Determination of the melting point
Week 10	Determination of the boiling point
Week 11	Purification of the solid organic compounds (recrystallization process)
Week 12	Purification of the liquid organic compounds (simple distillation)
Week 13	Purification of the liquid organic compounds (fractional distillation)
Week 14	Qualitative analysis of the functional groups
Week 15	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Fundamental of analytical chemistry by Skoog, West, Holler & Crouch, 8 th , 2004.	Yes
	Organic Chemistry, Morrison and Boyd book, 6th edition	Yes
Recommended Texts	1-Fundamental of analytical chemistry by Skoog, West, Holler, 6 th , 1992. 2-Principles of instrumental analysis by Skoog, West, Holler & Crouch, 8 th , 2004. 3-K. Burger D, Sc, "Organic regents in metal analysis", 1 st , New York, 1973. 4-J.N.Miller & J.C. Miller" Statistical for anal. Chem.", 2 nd , New York, 1988.	
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	(قيد المعالجة) راسب	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks with decimal places above or below 0.5 will be rounded to the higher or lower full mark accordingly. For instance, a mark of 54.5 will be rounded up to 55, while a mark of 54.4 will be rounded down to 54. The University strictly adheres to a policy that does not allow for "near-pass fails," and therefore, the only adjustment made to the marks awarded by the original marker(s) will be the automatic rounding as described above.



Ministry of Higher Education and
Scientific Research - Iraq
University of Baghdad
College of Science
Department of Biology



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Mathematics and Biostatistics		Module Delivery
Module Type	Basic		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Tutorial.
Module Code			
ECTS Credits	7		
SWL (hr/sem)	175		
Module Level	1	Semester of Delivery	1
Administering Department	Type Dept. Code	College	Type College Code
Module Leader			e-mail
Module Leader's Acad. Title	Assistant Professor	Module Leader's Qualification	Ph.D.
Module Tutor			e-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	14/6/2023	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

<p>Module Aims أهداف المادة الدراسية</p>	<p>The objectives of the academic program of teaching mathematics for the first stage in universities typically include the following:</p> <ol style="list-style-type: none">1. Developing fundamental mathematical skills: The first stage of university mathematics education aims to develop students' fundamental mathematical skills, including algebra, geometry, trigonometry, and calculus. Students are expected to master these skills to build a strong foundation for more advanced mathematical concepts.2. Promoting critical thinking: Mathematics education in universities aims to promote critical thinking skills by teaching students to solve problems using logical reasoning, deduction, and analysis. Students learn how to approach complex problems and break them down into simpler, more manageable parts.3. Fostering creativity: Mathematics education can also foster creativity by encouraging students to explore new ideas and develop their own approaches to problem-solving. By encouraging creativity, students can develop a deeper appreciation for the beauty and elegance of mathematics.4. Preparing students for advanced study: The first stage of university mathematics education is often a prerequisite for advanced study in mathematics and related fields. Therefore, one of the primary objectives is to prepare students for more advanced coursework by building a strong foundation in fundamental mathematical skills.5. Enhancing career prospects: Mathematics education can also enhance students' career prospects by providing them with the analytical and problem-solving skills that are highly valued in a wide range of industries, including finance, engineering, and computer science. Thus, the academic program of teaching mathematics at the first stage in universities aims to equip students with the necessary skills and knowledge to succeed in their future careers.
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>Module learning outcomes in math typically include the following:</p> <ol style="list-style-type: none">1. Knowledge: Students should be able to demonstrate a comprehensive understanding of mathematical concepts, theories, and principles relevant to the module.2. Problem-solving: Students should be able to apply mathematical knowledge and skills to solve problems and analyze real-world situations.3. Mathematical reasoning: Students should be able to use mathematical reasoning to derive conclusions and make predictions based on available data.4. Communication: Students should be able to communicate mathematical ideas and concepts clearly and effectively, both in writing and orally.5. Use of technology: Students should be able to use technology, such as calculators, computer software, and online resources, to enhance their understanding of mathematical concepts and solve problems.6. Independent learning: Students should be able to engage in independent learning, such as reading relevant literature, conducting research, and applying mathematical concepts to novel problems.7. Critical thinking: Students should be able to critically evaluate mathematical arguments and solutions, identify potential errors or weaknesses, and propose alternative solutions.8. Numeracy: Students should be able to demonstrate proficiency in numerical skills, including arithmetic, algebra, geometry, and statistics, as appropriate to the module.9. Mathematical modeling: Students should be able to create and interpret mathematical models of real-world phenomena, using appropriate mathematical tools and techniques.

	1. Ethics and professionalism: Students should be able to apply mathematical knowledge and skills in an ethical and professional manner, respecting the rights and dignity of others and adhering to relevant codes of conduct and professional standards.
Indicative Contents المحتويات الإرشادية	The mathematics course for the first stage typically covers a range of fundamental mathematical topics, including calculus, The Rate of change of function, limit , Derivatives of algebraic function and Applications. The course aims to develop students' mathematical skills, including problem-solving, critical thinking, and analytical reasoning, and to prepare them for advanced study in mathematics and related fields.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	This module's contact teaching will be conducted through lecturing (15 lectures) and compulsory 15 practical sessions, which include learning videos and scientific animations. Students will be invited to participate in interactive discussion throughout this program.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	111	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	19
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	4	10% (10)	3,6 and 10,13	LO #1, #2 and #10, #11
	Assignments	4	10% (10)	2,5 and 10, 13	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All

	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	8	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	<ol style="list-style-type: none"> 1. Slope, and equation of line. 2. Functions and their graphs. 3. Shifts, circle, and parabolas
Week 2	<ol style="list-style-type: none"> 1. Limits. 2. Limits involving infinity. 3. Continuous functions. 4. Slopes, tangent lines, and derivatives. 5. Differentiation rules. 6. Velocity, speed, and other rates of change. 7. Derivatives of trigonometric functions. 8. Chain rule. 9. Maxima, minima.
Week 3	<ol style="list-style-type: none"> 1. Definite integrals. 2. The fundamental theorem of integral calculus. 3. Indefinite integrals. 4. Integration by substitution. 5. A brief introduction to logarithms and exponentials. 6. Areas between curves, volumes of solids of revolution. 7. Areas of surfaces of revolution.
Week 4	<ol style="list-style-type: none"> 1. Inverse function and their derivatives. 2. $\ln x$, e^x, and logarithmic differentiation. 3. Hospital rule. 4. The inverse trigonometric function. 5. Derivatives of inverse trigonometric functions.
Week 5	<ol style="list-style-type: none"> 1. Basic integration formula. 2. Integrations by parts. 3. Trigonometric integrals. 4. Rational functions and partial fractions. 5. Improper integrals.
Week 6	<ol style="list-style-type: none"> 1. Sequences. 2. Series and absolute convergence. 3. Power series. 4. Taylor's series and Maclaurin series.
Week 7	<ol style="list-style-type: none"> 1. polar coordinates. 2. Graphing in polar coordinates.
Week 8	Mid-Term exam

Week 9	Some Basic concepts Statistics, Data, Biostatistics, Variables: Types of Variables, Population, Sample
Week 10	Descriptive Statistics Frequency Distribution Measures of Central Tendency: Mean, Median, Mode, Percentiles and Quartiles Measures of Central Tendency: Grouped Data Measures of Variation: The Range, The Variance and the Standard Deviation, Moments, Skewness and Kurtosis Measures of Variation: Grouped Data
Week 11	Basic Probability Concepts Properties of Probability, Probability of an Event, Marginal Probability, Conditional Probability, Baye's Theorem
Week 12	Discrete Probability Distributions Probability Distributions for Discrete Random Variables, Expected Value and Variance of a Discrete Random Variable, Bernoulli Distribution, Binomial Distribution, Poisson Distribution
Week 13	Continuous Probability Distributions Continuous Probability Distribution, Expected Value and Variance of a Continuous Random Variable, The Normal Distribution, The Standard Normal Distribution
Week 14	Sampling Distribution Sampling Distribution(definition), Sampling Distribution of the Sample Mean, Sampling from Normal Population
Week 15	Central Limit Theorem: Sampling from Non-normal Population, The T-Distribution, Chi-Square Distribution, F- Distribution
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<ol style="list-style-type: none"> Stewart. J. "Calculus", 7th Edition, 2012. Wayne W. Daniel (1995) "Biostatistics: Basic Concepts and Methodology for the Health Sciences", Sixth Edition, John Wiley and Sons M. 	
Recommended Texts	<ol style="list-style-type: none"> Ataharul Islam, Abdullah Al-Shiha (2018) "Foundations of Biostatistics", Springer 	
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
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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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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	English Language / First Year		Module Delivery
Module Type	Basic		<input checked="" type="checkbox"/> Theory
Module Code			<input type="checkbox"/> Lecture
ECTS Credits	2		<input type="checkbox"/> Tutorial
SWL (hr/sem)	50		<input type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	1	Semester of Delivery	1
Administering Department	Type Dept. Code	College	Type College Code
Module Leader	Dr. Muthana Hameed Khalaf	e-mail	muthana.khalaf@sc.uobaghdad.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	01/06/2023	Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives

أهداف المادة الدراسية

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.

<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<p>By the end of the course, the students will be able to:</p> <ol style="list-style-type: none"> 1. Listening and Speaking Skills: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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.
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<ol style="list-style-type: none"> 1. Use simple forms of polite expressions to establish basic social contact and 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. 2. Use a narrow range of positive and negative adjectives to describe objects, people and places. 2.3. Exchange information by forming and responding to simple questions. 3. Produce simple sentences using the correct word order and punctuation marks. 4. Use capital and lower case letters accurately in writing. 5. Construct a short guided paragraph on a familiar topic concerning home, family, friends and holidays.

	<p>5. Use the basic tenses including the present and past simple, and present continuous correctly.</p> <p>6. Use the basic auxiliary verbs (am/is/are/was/were/can) and a range of regular and irregular verbs.</p> <p>7. Demonstrate awareness of the essential grammatical features and functions including questions and negatives, plural nouns, frequency adverbs, possessives, pronouns and determiners.</p>
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<ol style="list-style-type: none"> 1. Communicative Approach: Emphasize communicative activities that promote interaction among students. Encourage pair and group work, role-plays, and discussions to practice language skills in meaningful contexts. 2. Integrated Skills: Integrate the four language skills (speaking, listening, reading, and writing) in lessons to create a balanced approach to language learning. Provide opportunities for students to use and develop these skills simultaneously. 3. Vocabulary Expansion: Incorporate vocabulary-building exercises and activities throughout the course. Use real-life contexts, visuals, and practical examples to help students learn and remember new words. 4. Grammar Focus: Teach and reinforce grammar structures in a systematic and progressive manner. Provide clear explanations, examples, and practice exercises to ensure students understand and can apply the grammar rules correctly. 5. Authentic Materials: Include authentic texts, such as articles, newspaper clippings, songs, and videos, to expose students to real-world language usage. This helps develop their reading and listening comprehension skills and exposes them to cultural aspects of English-speaking countries. 6. Cultural Awareness: Integrate cultural topics and discussions into the lessons to foster cultural awareness and sensitivity. Encourage students to share their own cultural backgrounds and experiences to promote understanding and appreciation of diverse perspectives. 7. Error Correction: Provide constructive feedback and error correction during speaking and writing activities. Help students identify and correct their mistakes, focusing on accuracy while encouraging fluency and self-expression. 8. Technology Integration: Utilize technology tools, such as interactive whiteboards, online resources, and language learning apps, to engage students and enhance their language learning experience. Incorporate multimedia materials for listening and speaking practice. 9. Regular Assessment: Assess students' progress regularly through quizzes, tests, and assignments. Provide timely feedback to guide their learning and address areas that need improvement.

	<p>10. Individualization: Cater to the individual needs and learning styles of students. Offer differentiated tasks and activities to ensure all learners are appropriately challenged and supported.</p> <p>11. Cooperative Learning: Promote collaboration and teamwork among students through pair work, group projects, and peer feedback. This encourages active participation and a supportive learning environment.</p> <p>12. Review and Revision: Schedule regular review sessions to consolidate previously learned material. Encourage students to revise and practice independently, providing resources for self-study and additional practice.</p>
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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	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.25
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #9 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	8	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
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	Material Covered
Week 1	<h2>Hello!</h2> <p>p6 am/are/is, my/your <i>I'm Pablo.</i> <i>My name's Judy.</i> <i>What's your name?</i> p6 This is ... <i>This is Ben.</i> <i>Nice to meet you.</i> p7</p>
Week 2	<h2>Your world</h2> <p>p12 he/she/they, his/her <i>He's from the United States.</i> <i>Her name's Karima.</i> p13 <i>They're on holiday.</i> p16 Questions <i>What's his name?</i> <i>Where's she from?</i> p13</p>
Week 3	<h2>All about you</h2> <p>p18 am/are/is <i>We're all singers.</i> p20 Negatives <i>She isn't a nurse.</i> p18 <i>I'm not from Scotland.</i> p20 <i>They aren't builders.</i> p20 Questions <i>What's her address? How old is she?</i> <i>Is she married?</i> p19 Short answers <i>Yes, she is. / No, she isn't.</i> p20</p>
Week 4	<h2>Family and friends</h2> <p>p24 Possessive adjectives <i>my, your, our, their</i> p24 Possessive 's <i>Annie's husband Jim's office</i> p24 has/have <i>I have a small hotel. She has a job.</i> <i>We have three sons.</i> p27 Adjective + noun <i>a small hotel a big house a good job</i> p27 <i>apples, beer, bread, cake</i> p36 Shopping <i>newsagent's, chemist's,</i> <i>off-licence</i> p36 Can you come for dinner? <i>Would you like some more rice?</i> <i>Could you pass the salt, please?</i> <i>How would you like your coffee?</i> <i>This is delicious!</i> p37</p>

<p>Week 5</p>	<p>The way I live</p> <p>p32</p> <p>Present Simple I/you/we/they <i>I like ice-cream. I don't like tennis.</i> <i>Do you like football?</i> p33 <i>Where do you work? Do you live in Dundee?</i> p34 <i>In Brazil they speak Portuguese.</i> p36</p> <p>a and an <i>a waiter, an actor, an Italian restaurant</i> p34</p> <p>Adjective + noun <i>an American car Spanish oranges</i> p37</p>
<p>Week 6</p>	<p>Every day</p> <p>p40</p> <p>Present Simple he/she <i>He gets up at 6.00.</i> <i>He has lunch in his office.</i> p42 <i>She lives in a small house.</i> p44</p> <p>Questions and negatives <i>What time does he have breakfast?</i> <i>He doesn't live in London.</i> p43</p> <p>Adverbs of frequency <i>He always works late.</i> <i>He never goes out.</i> p42</p>
<p>Week 7</p>	<p>My favourites</p> <p>p48</p> <p>Question words <i>who, where, why, how</i> p48</p> <p>Pronouns Subject/Object/Possessive <i>I/me/my we/us/our they/them/ their</i> p49</p> <p>this and that <i>I like this wine. Who's that?</i> p50</p>
<p>Week 8</p>	<p style="text-align: center;">Mid Exam</p>
<p>Week 9</p>	<p>Where I live</p> <p>p56</p> <p>There is/are ... <i>There's an old sofa.</i> <i>Are there any armchairs?</i> <i>There are some books.</i> p57</p> <p>Prepositions <i>in, on, under, next to</i> p58</p>
<p>Week 10</p>	<p>Times past</p> <p>p64</p> <p>was/were born <i>When were you born?</i> <i>I was born in 1996.</i> p65</p> <p>Past Simple – irregular verbs <i>went, came, saw</i> <i>She went shopping.</i> p68</p>

<p>Week 11</p>	<h2>We had a great time!</h2> <p>p72</p> <p>Past Simple – regular and irregular <i>played, got, watched, did</i> p72</p> <p>Questions <i>What did you do?</i> <i>Did you go out?</i> p73</p> <p>Negatives <i>They didn't go to work.</i> p73</p> <p>ago <i>I went to Rome ten years ago.</i> p78</p>
<p>Week 12</p>	<h2>I can do that!</h2> <p>p80</p> <p>can/can't <i>He can speak French. I can't draw.</i> <i>Can she run fast?</i> p80</p> <p>Adverbs <i>I can cook a little bit. I can't cook at all.</i> <i>really well, fluently</i> p82</p> <p>Requests and offers <i>Can you tell me the time? Can I help you?</i> p83</p>
<p>Week 13</p>	<h2>Please and thank you</h2> <p>p88</p> <p>I'd like ... <i>I'd like some ham.</i> <i>How much would you like?</i> p88</p> <p>some and any <i>I'd like some cheese.</i> <i>Do you have any Emmental?</i> <i>I don't have any apple juice.</i> p89</p> <p>like and would like <i>I like Coke.</i> <i>I like going to the cinema.</i> <i>I'd like to go out.</i> p91</p>
<p>Week 14</p>	<h2>Here and now</h2> <p>p96</p> <p>Present Continuous <i>She's wearing a T-shirt.</i> <i>What's he doing?</i> p97</p> <p>Present Simple and Present Continuous <i>He lives in London.</i> <i>They're staying in a hotel.</i> p98</p>
<p>Week 15</p>	<h2>It's time to go!</h2> <p>p104</p> <p>Future plans <i>They're going on holiday.</i> <i>Which countries are you going to visit?</i> <i>I'm leaving on Tuesday.</i> <i>What are you doing this evening?</i> p104</p>

	Revision Question words – when, where, who, how p106 Tenses – present, past, and future tenses p110
Week 16	Preparatory week before the final Exam

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. Visit their website at www.oup.com and search for "New Headway Plus, Special Edition, Beginner Level " or browse their English language teaching section for information on the course.	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
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	B - Very Good	جيد جدا	80 - 89	Above average with some errors
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Ministry of Higher Education and
Scientific Research - Iraq
University of Baghdad
College of Science
Department of Biology



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Arabic Language		Module Delivery
Module Type	Basic		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code			
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	1	Semester of Delivery	
Administering Department	Type Dept. Code	College	Type College Code
Module Leader	Dr. Leqaa faleh owdaa	e-mail	leqaa.falih@ircoedu.uobaghdad.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	11/06/2023	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

<p>Module Objectives أهداف المادة الدراسية</p>	<p>١- تعلم مهارات الكتابة والاملاء والتعبير الصحيح خلال تطبيق قواعد اللغة العربية بشكل مفصل وتطبيقي على نصوص عربية. ٢- لفهم الجمع وأنواع الاسماء وكيفية التعامل معها. ٣- لفهم العدد واستعماله بشكل صحيح من حيث المطابقة والمخالفة للتفريق بين الضاد والطاء. ٤- للتفريق ومعرفة استعمال التاء المربوطة والتاء الطويلة. ٥- التمييز بين العلامات الاصلية والفرعية. ٦- تعلم استعمال الأدوات وعمل كل أداة ومعناها في التعبير.</p>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>هام: اكتب ٦ مخرجات تعليمية على الأقل، ومن الأفضل أن تكون مساوية لعدد أسابيع الدراسة ١- التعرف على كيفية جمع الأسماء وأنواع الجموع وسبب اختلافها وقائمة بالمصطلحات المختلفة المرتبطة ببلاغة اللغة العربية تعلم كتابة الهمزة وانواعها. ٢- وصف عمل الجمل الفعلية وأنواع الأفعال ٣- ناقش وتفاعل ومشاركة قواعد الجمل الاسمية وعلامات الاعراب الاصلية والفرعية والتطبيقات ضمن نصوص أدبية وقرآنية. ٤- القدرة على استعمال علامات الترقيم في كتابة البحوث والتقارير . ٥- التمييز بين الأدوات وأسلوب العطف والجر. ٦- التعرف على قواعد اللغة العربية الأساسية وتطبيقاتها.</p>
<p>Indicative Contents المحتويات الإرشادية</p>	<p>يتضمن المحتوى الإرشادي ما يلي. مقدمة في البداية التي أسس لها علماء اللغة العربية وكيف بدأت كتابة المؤلفات بالمعجم والقواعد وجمع اللهجات واستقراء اللغة وحركة الترجمة والفتوحات وتطور اللغة. ومشكلات المراجعة (٦ ساعات) ودراسة الجمل وانواعها والأفعال والعلامات الاصلية والفرعية والعدد. ومشكلات الكتابة والاملاء التي يقع فيها الطلبة في التفرقة بين الضاد والطاء والتاء المربوطة والطويلة والهمزة وانواعها وكيفية كتابتها. (٦ ساعات) ودراسة الموضوعات الصرفية التي تخص المشتقات من اسم الفاعل واسم المفعول وصيغة المبالغة واوزانها ومعانيها وصيغها السماعية والقياسية.. وعلامات الترقيم وكيفية توظيفها في كتابة التقارير والبحوث والمخطوطات. (٦ ساعات)</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

<p>Strategies</p>	<p>كتب شيئاً مثل: الاستراتيجية الرئيسية التي سيتم تبنيها في تقديم هذه الوحدة هي تشجيع الطلاب على المشاركة في التمارين، مع تحسين مهارات التفكير النقدي وتوسيعها في نفس الوقت. سيتم تحقيق ذلك من خلال الفصول والبرامج التعليمية التفاعلية ومن خلال النظر في أنواع التجارب البسيطة التي تتضمن بعض أنشطة أخذ العينات التي تهتم الطلاب.</p>
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Student Workload (SWL)			
الحمل الدراسي للطلاب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	33	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	1.25
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	50		

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

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	علامات الترقيم والتنقيط والنواسخ
Week 2	المشتقات.
Week 3	الجملة الاسمية
Week 4	الجملة الفعلية
Week 5	الفرق بين الضاد والظاء
Week 6	التاء المربوطة والتاء المفتوحة
Week 7	الهمزة وانواعها
Week 8	Mid Exam

Week 9	الجمع العدد
Week 10	العلامات الاصلية والعلامات الفرعية
Week 11	اعلام عراقيون بدر شاكر السياب والجواهري
Week 12	العطف
Week 13	حروف الجر
Week 14	الاسم الموثث والاسم المذكر
Week 15	الحذف والزيادة
Week 16	الأسماء المنصوية

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	جامع الدروس العربية وشرح ابن عقيل	Yes
Recommended Texts	Electromagnetic theory (book). 2000.vol.1	yes
Websites	https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering	

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

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