Meddle East University College

كلية الشرق الاوسط الجامعة

Second Cycle – Bachelor's degree (B.Sc.) – Biology/fist Stage

بكالوريوس علوم - علوم حياة (الدورة الثانية)/ المرحلة الاولى

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1. Mission & Vision Statement

Vision Statement

The academic staff of biology department – College of Meddle East believe that students registered at this department in order to understand the multidiscipline of biology through a variety of patterns of course work, laboratory experiences, research, and teamwork. This combination of instructional methods leads students to equalized understanding of the scientific techniques used by biologists to construct interpretations, develop visions and create theories about the living organisms that populate our planet. Small class sizes within the biology program foster a close working relationship between academic staff and students in an informal and nurturing atmosphere.

Mission Statement

The academic staff of biology department pursues a multifaceted charge at College of Meddle East. The Program seeks to provide all biology students with ultimate knowledge of biology, as well as a deeper understanding in certain focus field within the biological sciences. The curriculum and advising have been proposed to prepare graduates for their professional future, whether they choose to work as a biologist specializing in a wide variety of special field such as microbiology, botany or wildlife, or to pursue advanced degrees in life sciences or health sciences. The program in this department, also delivers the principal fundamental knowledge of the life sciences to support the Nursing degree, the biomedical Studies degree, and the Associate of Science degree in Forest Technology. In addition, biology courses provide a key laboratory science experience for those students pursuing to accomplish the general education requirements.

2. Program Specification

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

Biology is astonishingly wide-ranging subject and is well fortified to deliver. The emphasis of this programme is the whole organism to which everything is correlated, be it the molecules that form proteins or communities of organisms in our ecosystem. It is a common degree - –or some it's' the breadth of the subject that appeals, for others it's a path to specialization. All students have the opportunity to transfer onto our specialist degrees in Chemistry, Zoology, and Biophysics at the end of the first year.

In Level 1 students are exposes to core topics such Zoology as well as other topics, appropriate for progression to all programmes within the biology programme group. The majority of programme-specific core topics are covered at Level 2 preparing for research-led topic specialist modules at Levels 3 and 4. The University Biology graduate is therefore instructed to gain how research informs teaching, according to the University and School Mission statements.

At Levels 4 students have the opportunity to choose one or two topics from their module credits with the proviso a range of modules are selected that reflect the complexity of life forms from molecules, through organisms, both plants and animals, to populations to ensure the breadth of knowledge expected of a graduate with a biology degree. This allows students to develop their own wide-ranging interests in organismal biology. Decisions on what to study are made with input from personal tutors.

The research ethos is developed and fostered from the start via practicals, which are either embedded in lecture modules or taught in enthusiastic practical modules, research seminars and tutorials. There is a compulsory field course in Level 1, which students have to pass in order to progress into Level 2, and optional field courses in Levels 4. At Level 4 all students carry out an independent research project, which has a 4-credit library or data analysis project, or laboratory-based project or a combination of all of the above mentioned.

Academic tutorials are held at Levels 1 and 2 with the same tutor, who is also the individual tutor, providing continuity and progressive guidance. Level 1 and 2 tutorials include a number of workshops to demonstrate skills such as library usage and presentation skills, followed by evaluated exercises (essays and talks) as opportunities to exercise these skills in a subject-specific context.

International years and Industrial placements are also offered and individual needs are discussed with the appropriate tutor and accommodated wherever possible.

3. Program Objectives

1. To provide a comprehensive education in biology that stresses scientific reasoning and problem solving across the spectrum of disciplines within biology
2. To prepare students for a wide variety of post-baccalaureate paths, including graduate school, professional training programs, or entry level jobs in any area of biology
3. To provide extensive hands-on training in electronic technology, statistical analysis, laboratory skills, and field techniques
4. To provide thorough training in written and oral communication of scientific information
5. To enrich students with opportunities for alternative education in the area of biology through undergraduate research, internships, and study-abroad

4. Student Learning Outcomes

Biology is the study of the organization and operation of life at the molecular, cellular, organism, and population levels. Graduates obtain information on the historical, technical and social aspects of biology and utilize basic knowledge toward realizing broader concepts. The Department offers a Bachelor of Science in Biology with a concentration in General Biology; Pre-medicine / Pre-dentistry; Biotechnology / Molecular Biology and a minor in Secondary Education that leads to a Public Instruction License. Additionally, the Department offers courses to a large number of students from other departments and supports pre-professional programs. The biology curriculum and experiences are designed to prepare students, in part, for entry into professional health programs, graduate studies, technical careers and education.

Outcome 1

Identification of Complex Relationships

Graduates will be able to illustrate the structure and function of cellular components and explain how they interact in a living cell.

Outcome 2

Oral and Written Communication

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

Outcome 3

Laboratory and Field Studies

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

Outcome 4

Scientific Knowledge

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

Outcome 5

Data Analyses

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

Outcome 6

Critical Thinking

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

5. Academic Staff

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6. Credits, Grading and GPA

Credits

College of Middle East is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

Grading

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

GRADING SCHEME مخطط 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:				

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

Calculation of the Cumulative Grade Point Average (CGPA)

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

   CGPA of a 4-year B.Sc. degree:
   CGPA = [(1st ^{m}odule score x ECTS) + (2nd ^{m}odule score x ECTS) + ……] / 240

7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
Bio-111	General Zoology	63	137	8.00	C	
COS-112	Analytical Chemistry	63	112	7.00	C	
COS-111	General Mathematics	48	77	5.00	C	
COS-113	Biophysics	63	87	6.00	C	
UOA-111	Human Rights and Freedoms	33	17	2.00	B	
UOA- 112	Arabic Language I	33	17	2.00	B	

Semester 2 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
BIO-121	General Botany	63	137	8.00	C	
COS-122	Organic Chemistry	63	112	7.00	C	
COS-121	Biostatistics	48	102	6.00	C	
BIO-122	Safety and biosecurity	33	67	4.00	C	
UOA-121	Computer Science I	48	27	3.00	B	
UOA-003	English Language I	33	17	2.00	B	

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Meddle East University College
كلية الشرق الاوسط الجامعة

Second Cycle – Bachelor's Degree (B.Sc.) - Biology /First Stage

بكالوريوس – علوم حياة (الدورة الثانية) / المرحلة الاولى

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1. Overview

This catalogue is about the courses (modules) given by the program of Biology to gain the Bachelor of Science degree. The program delivers (46) Modules with (6000) total student workload hours and 240 total ECTS. The module delivery is based on the Bologna Process.

نظره عامه

يتناول هذا الدليل المواد الدراسية التي يقدمها برنامج قسم علوم الحياة للحصول على درجة بكالوريوس العلوم. يقدم البرنامج (٤٦) مادة دراسية مع (٦٠٠٠) إجمالي ساعات حمل الطالب و ٢٤٠ إجمالي وحدات أوروبية. يعتمد تقديم المواد الدراسية على عملية بولونيا.

2. Undergraduate Courses 2024-2025

Module 1

Code	Course/Module Title	ECTS	Semester
BIO-111	General Zoology	8	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/2/0/0	63	137
Description			
Zoology course covers three main themes: Comparative physiology - the functional characteristics of animals ; Evolutionary biology - how animals adapt to their environment, and their genetics, Behaviour, ecology and conservation - how animals interact with their environment and each other to support biodiversity on the planet. Alongside your specialist zoology modules, you'll have the flexibility to study topics across the breadth of biology to complement your knowledge. These modules are available from your first year. Topics range from ecology and molecular genetics that underpin conservation, to pharmacology, neuroscience and even human physiology. This flexibility allows you to study zoology in greater depth, broaden your interests or even switch to another biosciences degree program.			

Module 2

Code	Course/Module Title	ECTS	Semester
COS-112	Analytical Chemistry	7	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/2/0/0	63	112
Description			
The chemical separation methods course is determined according to the study plan prepared in the Applied Chemistry Department. The course aims to introduce students to the general concepts of chemical separation methods used in chemical measurements. It also aims to study in detail the types of separation methods that depend on physical or chemical properties, as well as extraction processes, purification of drinking water, fractional distillation of crude oil products, and purification of medical and chemical extracts used in daily life. It helps the student to know the composition of these materials, including medicines and extracts, separating components from their raw materials, how reactions occur, and the measurement mechanism.			

Module 3

Code	Course/Module Title	ECTS	Semester
COS-111	General Mathematics	5	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/0/0/0	48	77
Description			
Mathematics is a very active and fast growing interdisciplinary area in which mathematical concepts, techniques, and models are applied to a variety of problems in developmental biology and biomedical sciences. Many biological processes can be quantitatively characterized by differential equations. This course introduces you to a variety of models mainly based on ordinary differential equations and techniques for analyzing these models. Mathematical concepts on nonlinear dynamics and chaos will be introduced. Use and interpret different types of data in biology. Apply knowledge of sampling to test hypotheses about problems. Interpret the results of analysis and communicate them in a clear, concise and appropriate manner. Discuss the principles of biology aspects and relate these to the decision-making and studies and the interpretation of results.			

Module 4

Code	Course/Module Title	ECTS	Semester
COS-113	Biophysics	6	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/2/0/0	63	87
Description			
Biophysics is Identify the foundations and systems of physics and link them to daily life activities and human activities. Knowledge of vector and scalar quantities and the basic units of physics. Study and transform vectors, and addition, subtraction and multiplication of vectors. Study of movement in one dimension and calculate the acting forces and their resultant. Study of simple harmonic motion, heat, heat quantity, friction, electricity, energy, and work, and their relationship to living organisms.			

Module 5

Code	Course/Module Title	ECTS	Semester
UOA-111	Human Rights and Democracy	2	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/0/0/0	33	17
Description			
زيادة معرفة الطالب بالجانب المفاهيمي النظري والتطور التاريخي لمادة حقوق الانسان والديمقراطية. تنمية مهارات الطالب التحليلية والنقدية فيما يتعلق بواقع ومستقبل حقوق الانسان والديمقراطية، تدريب الطالب على اهمية المشاركة الفاعلة في جوانب الحياة العامة كتعزيز احترام مبادى حقوق الانسان العامة والمشاركة الفاعلة في الحياة السياسية والثقافية. تمكين الطلاب من فهم اهمية التعليم ودوره في نشر ثقافة حقوق الإنسان والديمقراطية في بناء مجتمع حضاري يقوم على أساس الحكم الصالح الذي من اهم مقوماته الإيمان بحقوق الإنسان والتربية عليها والمشاركة الفاعلة في الحكم عبر الانتخابات الحرة والعادلة.			

Module 6

Code	Course/Module Title	ECTS	Semester
UOA-112	Arabic Language I	2	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/0/0/0	33	17
Description			
تنمية معارف الطلبة للغة العربية، وأهميتها لهم. وأن يتعرف على شرح بعض سور القرآن الكريم، ويحفظها. تعرف الطالب على تاريخ الأدب، وأهم مراحل تطوره. الاطلاع على شعراء لم يسبق للطالب التعرف عليهم، أن يضبط الطلبة كتابة الأملاء وعلامات الترقيم. القدرة على الحفظ والاستذكار، الموازنة بين لغة ادب العصر المذكور والآداب الاخرى. المشاركة الجماعية للمحتويات الادبية للمادة القدرة على تقديم المقترحات وحل المشكلات. أن يجمع الطالب كم كبيرا من المفردات والمعاني وأن يتعلم طريقة البحث في المعاجم والقواميس العربية.			

Module7

Code	Course/Module Title	ECTS	Semester
BOI-121	General Botany	8	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/2/0/0	63	137
Description			
General Botany Giving the student a historical overview of botany and its branches and The relationship of botany to other sciences. And study the benefits of the plant for life and the environment, botany components, types and locations. we teaching the student the nature of plant growth and its diagnosis and Knowing the parts of a plant through its apparent appearance, the different parts of the plant from an anatomical perspective. The student will gain experience in the process of diagnosing plants according to different families, knowing the external appearance of each part of the plant, and introducing the student to the anatomical sections of the different parts of the plant and using the microscope.			

Module 8

Code	Course/Module Title	ECTS	Semester
COS-122	Organic Chemistry	7	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/2/0/0	63	112
Description			
Organic Chemistry contains the types of bonds in organic compounds and the methods of preparation, properties and reactions of alkanes and alkynes and alkyl halides, alcohols, and carboxylic acids the types of hybridization and chemical bonds in organic compounds. Organic Chemistry take formations about how to write reaction equations and preparation methods for some of the studied compounds and the name the organic compounds studied in the course according to international rules and take a knowledge of methods for preparing the organic compounds studied theoretically and practically and methods for separating and purifying organic materials theoretically and practically.			

Module 9

Code	Course/Module Title	ECTS	Semester
COS-121	Biostatistics	6	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/0/0/0	48	102
Description			
Biostatistics contain the types of distributions and focus on the normal distribution of data and determine the sufficient number of samples according to the data dispersion system. Biostatistics take the Knowledge of the most important statistical tests used in biological research and Enabling the student to choose the appropriate statistical analysis for the research problem and conduct factorial and non-factorial tests. The skill of applying what the student learns during the course in his future professional life and Skill in analyzing variation in biometrics			

Module 10

Code	Course/Module Title	ECTS	Semester
BIO-122	Safety and Biosecurity	4	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/0/0/0	33	67
Description			
Biosafety is the discipline that addresses the safe handling and containment of infectious microorganisms and hazardous biological materials. This includes how we handle animals, plants, cell culture, bacteria, viruses, fungi, parasites and public health crisis such as CoVID-19. Biosafety goal is to reduce or eliminate exposure of lab personnel, the community and the environment to potentially infectious or hazardous agents and this is achieved via the principles of containment and risk assessment. In addition, Biosecurity is defined as the strategic approach to analyzing and managing risks to human health, animal and plant life and the associated risks to the environment. It is based on recognition that hazards have the potential to be deliberately or accidentally misused resulting in harm. Specifically, laboratory biosecurity is a set of systems and practices employed in research facilities to protect microbial agents from loss, theft, diversion or intentional misuse.			

Module 11

Code	Course/Module Title	ECTS	Semester
UOA-121	Computer Science I	3	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
1	0/2/0/0	48	27
Description			
Computer Science is the study of computers and computational systems, in which computer scientists deal mostly with software and software systems; this includes their theory, design, development, and application. Principal areas of study within Computer Science include Microsoft Word, Excel, PowerPoint, artificial intelligence, computer systems and networks, security, database systems, human computer interaction, vision and graphics, numerical analysis, bioinformatics and theory of computing			

Module 12

Code	Course/Module Title	ECTS	Semester
UOA-003	English language I	2	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/0/0/0	33	17
Description			
The course aims to develop communicative competence in English for intercultural contexts by teaching language items and communicative strategies essential for such scenarios, while at the same time giving students ample chances to output such items. The aims of this course are reflected in the content, which contains several themes, such as cultural awareness, intercultural awareness and English as a global language. Indicative content includes understanding the uniqueness of your own culture and other cultures, as well as being aware of the role culture plays in communication in English as a global language. In addition, this course allows for discussions about what it means for English to be a global language of communication and how misunderstandings and miscommunications when using English occurs. The course also includes practice in the pronunciation features that help improve intelligibility in intercultural contexts.			

Contact

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Middle East University College
كلية الشرق الاوسط الجامعة

First Cycle – Bachelor's Degree (B.Sc.) – Biology/Second Stage

بكالوريوس – علوم حياة / المرحلة الثانية

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1. Overview

This catalogue is about the courses (modules) given by the program of Biology- second stage to gain the Bachelor of Science degree. The program delivers (12) Modules with (1500) total student workload hours and (60) total ECTS. The module delivery is based on the Bologna Process.

نظره عامه

يتناول هذا الدليل المواد الدراسية التي يقدمها برنامج قسم علوم الحياة المرحلة الثانية للحصول على درجة بكالوريوس العلوم. يقدم البرنامج (12) مادة دراسية مع (1500) إجمالي ساعات حمل الطالب و(60) إجمالي وحدات أوروبية. يعتمد تقديم المواد الدراسية على عملية بولونيا.

2. Undergraduate Courses 2024-2025

Module 1

Code	Course/Module Title	ECTS	Semester
Bio-211	Entomology I	4	3
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	37
Description			
Entomology, branch of zoology dealing with the scientific study of insects. The Greek word entomic, meaning “notched,” refers to the segmented body plan of the insect. It includes Identify and distinguishes types of insects. The student will be able to distinguish between beneficial and harmful insects. The possibility of dealing with insects in a scientific way. Know the terminology used in entomology, the possibility of classifying insects scientifically and can distinguish different species and learn about their environment. Breeding insects in laboratories, pest control, how to deal with insects, methods of collecting insects, and methods of hardening and collecting insects. Delivering information to society in a scientific way. Identify the areas where insects are found.			

Module 2

Code	Course/Module Title	ECTS	Semester
Bio-212	Plant Anatomy	5	3
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	62
Description			
Is the study of the tissue and cell structure of plant organs. The term anatomy, as applied to plants, generally deals with structures that are observed under a high-powered light microscope or electron microscope. (In zoology, the term anatomy refers to the study of internal organs. Introduction to plant anatomy, plant structure, plant cell structure, classification of plant tissue, plasma membrane, cell wall: primary cell wall, secondary cell wall, pits, type of pits: simple pits, bordered pits, blind pits, Protoplasmic Components: nucleus, chloroplast, clogs apparatus, endoplasmic reticulum, etc.., non-protoplasmic components: vacuole, protein, oil drop, crystals.			

Module 3

Code	Course/Module Title	ECTS	Semester
Bio-213	Invertebrates	5	3
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	62
Description			
Invertebrate, any animal that lacks a vertebral column, or backbone, in contrast to the cartilaginous or bony vertebrates. More than 90 percent of all living animal species are invertebrates. Worldwide in distribution, they include animals as diverse as sea stars, sea urchins, earthworms, sponges, jellyfish, lobsters, crabs, insects, spiders, snails, clams, and squid. Invertebrates are especially important as agricultural pests, parasites, or agents for the transmission of parasitic infections to humans and other vertebrates. Invertebrates serve as food for humans; are key elements in food chains that support birds, fish, and many other vertebrate species; and play important roles in plant pollination. Despite providing important environmental services, invertebrates are often ancillary in wildlife research and conservation, with priority given instead to studies that focus on large vertebrates. In addition, several invertebrate groups (including many types of insects and worms) are viewed solely as pests, and by the early 21st century the heavy use of pesticides worldwide had caused substantial population declines among bees, wasps, and other terrestrial insects.			

Module 4

Code	Course/Module Title	ECTS	Semester
Bio-214	Microbiology I	5	3
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	62
Description			
General Microbiology is the study of single-celled organisms and viruses, which are ubiquitous on Earth and which are intimately involved in our lives, with both good and bad effects. General Microbiology is an introductory unit that gives students an overview of microbes, particularly bacteria, as well as specific skills in handling and using microbial cultures. You will gain knowledge that you can apply to control microbial growth in order to maximize the benefits of microbes whilst limiting their disadvantages. You are expected to be actively involved in your learning, which enhances not only your knowledge and understanding of microbiology, but also helps you to develop learning skills useful for future study. Practical classes take the form of a directed research project closely integrated with the theory course.			

Module 5

Code	Course/Module Title	ECTS	Semester
Bio-215	Biochemistry I	4	3
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	37
Description			
Biochemistry is processes related to living organisms. It is a laboratory-based science combining biology and chemistry. Biochemists study the structure, composition, and chemical reactions of substances in living systems and, in turn, their functions and ways to control them.			

Module 6

Code	Course/Module Title	ECTS	Semester
Bio-216	Plant Groups	5	3
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	62
Description			
Plants are all unique regarding physical appearance, structure, and physiological behavior. Aside from that, they also vary in their habitats, tolerance, and nutrient requirement. So with that kind of diversity, the big question is, how do you exactly start to classify them? Good thing botanists have already devised ways to classify them. In fact, classifying plants is considered as one of the oldest approaches in studying botany. In general, botanists group plants into two major groups: non-vascular and vascular. The former is composed of early plants, while the latter consists of plants that had developed a vascular system. However, this kind of grouping seems very general and covers various scopes. The more commonly used plant classification is the more specific one: classifying them into different phyla.			

Module7

Code	Course/Module Title	ECTS	Semester
UOA-004	English languageII	2	3
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/0/0/0	33	17
Description			
The course aims to develop communicative competence in English for intercultural contexts by teaching language items and communicative strategies essential for such scenarios, while at the same time giving students ample chances to output such items. The aims of this course are reflected in the content, which contains several themes, such as cultural awareness, intercultural awareness and English as a global language. Indicative content includes understanding the uniqueness of your own culture and other cultures, as well as being aware of the role culture plays in communication in English as a global language. In addition, this course allows for discussions about what it means for English to be a global language of communication and how misunderstandings and miscommunications when using English occurs. The course also includes practice in the pronunciation features that help improve intelligibility in intercultural contexts.			

Module 8

Code	Course/Module Title	ECTS	Semester
Bio-221	Entomology II	4	4
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	37
Description			
Entomology is study about characters of Phylum Arthropoda, classification of insects, characters and classification of order Orthoptera, Hemiptera, Phtheraptera, Lepidoptera, Hymenoptera, Diptera, Coleopter, Isoptera, and Neuropteran. Identification for different Orders using pictorial keys, key to major families of Orthoptera, Hemiptera (Heteroptera , Homoptera) and Coleoptera by using Entomological methods.			

Module 9

Code	Course/Module Title	ECTS	Semester
Bio-222	Plant Taxonomy	5	4
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	62
Description			
Plant taxonomy is the science of classifying and naming plants. It is a branch of what is known as systematics, which is the science of determining how different biological organisms are related to each other. Taxonomy classifies plants and other organisms into different taxonomic levels. These different levels are as follows: Kingdom: A taxonomic category of the highest rank. Phylum: A phylum is a taxonomic level that sits below kingdom but above class. There are 12 different recognized plant phyla. Class/Order: The 'class' as a level of taxonomic classification was first introduced by French botanist Joseph Pitton de Tournefort in 1684. It sits below phyla and above order. Family: Plants are grouped by taxonomists into families, where plants grouped together have many common characteristics. Genus: The genus forms the first part of the binomial scientific name of a plant. Species, subspecies and variant: Genera comprise groups of different species that share certain common characteristics and are closely genetically related. A species is an interbreeding group of individuals that are capable of producing fertile offspring that can reproduce themselves. The term 'subspecies' and 'variant' are used to reflect variation within a species. Plant species/subspecies/variants are assigned binomial scientific names that appear in Italics.			

Module 10

Code	Course/Module Title	ECTS	Semester
Bio-223	Parasitology	5	4
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	62
Description			
It is included the study of three major groups of animals: parasitic protozoa, parasitic helminths (worms), and those arthropods that directly cause disease or act as vectors of various pathogens. A parasite is a pathogen that simultaneously injures and derives sustenance from its host. Some organisms called parasites are actually commensals, in that they neither benefit nor harm their host (for example, Entamoeba coli). Although parasitology had its origins in the zoo logic sciences, it is today an interdisciplinary field, greatly influenced by microbiology, immunology, biochemistry, and other life sciences.			

Module 11

Code	Course/Module Title	ECTS	Semester
Bio-224	Microbiology II	5	4
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	62
Description			
Nutrition and nutritional factors that influence microbial growth. As well as the role of metabolism in biosynthesis and microbial growth, environmental factors that influence microbial growth. Survival of microorganisms in the natural environment. Principles of microbial growth (binary fission, generation time). Microbial growth in laboratory conditions (Growth curve, colony growth, continuous culture) Enumeration of microorganisms in food and environment.			

Module 12

Code	Course/Module Title	ECTS	Semester
Bio-225	Biochemistry II	4	4
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/2/0/0	63	37
Description			
This course will focus on metabolic biochemistry: the study of chemical reactions that provide the cell with the energy and raw materials necessary for life. Students will examine metabolism of glycogen, fatty acids, amino acids, and nucleotides as well as the macromolecular machines that synthesize RNA, DNA, and proteins. Medical relevance is emphasized throughout the course. Topics Include: Metabolism, glycolysis and gluconeogenesis, citric acid cycle, oxidative phosphorylation, the pentose phosphate pathway, photosynthesis, lipid and steroid biosynthesis.			

Module 13

Code	Course/Module Title	ECTS	Semester
UOA-001	جرائم حزب البعث	2	4
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0/0/0/0	33	17
Description			
زيادة معرفة الطالب بجرائم حزب البعث المنحل والتطور التاريخي لهذه الجرائم في ظل الحكم الدكتاتوري المستبد الذي نتج عن هذا الحزب ذو الافكار الفردية التي تلغي مبدأ الحريات الفكرية والعقائدية , تنمية مهارات الطالب التحليلية والنقدية فيما يتعلق بواقع ومستقبل حقوق الانسان والديمقراطية ، تدريب الطالب على اهمية المشاركة الفاعلة في جوانب الحياة العامة كتعزيز احترام مبادى حقوق الانسان العامة والمشاركة الفاعلة في الحياة السياسية والثقافية التي منعها هذا الحزب المقبور. تمكين الطلاب من فهم اهمية التعليم ودوره في نشر ثقافة حقوق الإنسان والديمقراطية في بناء مجتمع حضاري يقوم على أساس الحكم الصالح الذي من اهم مقوماته الإيمان بحقوق الإنسان والديمقراطية وحرية الفكر والعقيدة والتربية عليها والمشاركة الفاعلة في الحكم عبر الانتخابات الحرة والعادلة.			

Module 14

Code	Course/Module Title	ECTS	Semester
UOA-008	Computer Science II	3	4
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
1	0/2/0/0	48	27
Description			
Computer Science is the study of computers and computational systems, in which computer scientists deal mostly with software and software systems; this includes their theory, design, development, and application. Principal areas of study within Computer Science include Microsoft Word, Excel, PowerPoint, artificial intelligence, computer systems and networks, security, database systems, human computer interaction, vision and graphics, numerical analysis, bioinformatics and theory of computing			

Module 15

Code	Course/Module Title	ECTS	Semester
UOA-002	Arabic Language II	2	4
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem.)**	**USWL (hr/w)**
2	0/0/0/0	33	17
Description			
تنمية معارف الطلبة للغة العربية، وأهميتها لهم. وأن يتعرف على شرح بعض سور القرآن الكريم، ويحفظها. تعرف الطالب على تاريخ الأدب، وأهم مراحل تطوره. الاطلاع على شعراء لم يسبق للطالب التعرف عليهم، أن يضبط الطلبة كتابة الأملاء وعلامات الترقيم. القدرة على الحفظ والاستذكار، الموازنة بين لغة ادب العصر المذكور والآداب الاخرى. المشاركة الجماعية للمحتويات الادبية للمادة القدرة على تقديم المقترحات وحل المشكلات. أن يجمع الطالب كم كبيرا من المفردات والمعاني وأن يتعلم طريقة البحث في المعاجم والقواميس العربية.			

Contact

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Analytical Chemistry**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**COS -112**				
ECTS Credits	**7**				
SWL (hr/sem)	**175**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Bio		**College**	Middle East	
Module Leader	Hamsa Munem Yaseen		**e-mail**	hamsa.m.y@hcoedu.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant Prof.		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	**1. The chemical separation methods course is determined according to the study plan prepared in the Applied Chemistry Department.** **2. The course aims to introduce students to the general concepts of chemical separation methods used in chemical measurements** **3. It also aims to study in detail the types of separation methods that depend on physical or chemical properties, as well as extraction processes, purification of drinking water, fractional distillation of crude oil products, and purification of medical and chemical extracts used in daily life. It helps the student to know the composition of these materials, including medicines and extracts, separating components from their raw materials, how reactions occur, and the measurement mechanism.**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**1- That the student know the general concepts of compounds in the analytical chemistry curriculum.** **2- The student should be familiar with the basics and rules for naming different compounds, structural compositions, and different physical properties. .** **3- The student should know the basic principles of measurement methods and separation processes, choose the most appropriate property for separation processes for each compound, obtain the best results and pure extracts, and get acquainted with each method.** **4- The student should understand the importance of these methods and methods and their applications.**
Indicative Contents المحتويات الإرشادية	**A- Methods of teaching and learning** **1- Giving lectures.** **2- Using the method of recitation, discussion and solving questions.** **3- Giving assignments to students to strengthen them and prepare them for the final and final exams.** **B- Evaluation methods** **1- Daily and monthly exams** **2- Duties** **3- In-class exercises**

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

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	112	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	7.5
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**	5	10% (10)	Same week	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	Each following week	LO #3, #4 and #6, #7
	Projects / Lab.	5	10% (10)	Continuous	All
	Report	2	10% (10)	7 – 13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	1hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Introduction to separation methods**
Week 2	**Distillation and type of distillations**
Week 3	**Extraction, its types and types of extracts**
Week 4	**Methods for treating contamination and purification of extracts**
Week 5	**Distribution Coefficient in extraction methods**
Week 6	**Extraction devices, their types, specifications of each device**
Week 7	**Organic solvents used in extraction and conditions to be met**

Week 8	First month exam
Week 9	Ion exchanges , types, components, manufacturing methods, and specifications
Week 10	General rules for selectivity in ion exchangers
Week 11	Introduction to Chromatography
Week 12	Types of chromatography, types of classification
Week 13	Types of Liquid-solid chromatography
Week 14	Types of Gas-solid chromatography
Week 15	HPLC chromatography
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to separation methods
Week 2	Lab 2: Extraction by funnel separation
Week 3	Lab 3: Extraction with a scicholite and clavanger device
Week 4	Lab 4: paper chromatography
Week 5	Lab 5: separation ions by Ion exchanges
Week 6	Lab 6: study The effect of pH in chromatography
Week 7	Lab 7: separation ions using chromatography

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1- General principles of chemical and weight analysis dr. Safaa Razouqi Al-mraab. The second part 2- Separation Methods in Chemical Analysis, Albertine Habboush, University of Baghdad. 3- Practical applications in automated chemical analyzes and separation methods - Ismail Khalil Al-Hiti	Yes
Recommended Texts	separation and purification of organic compounds Approach To Modern Separation Techniques. by C-Zhou, E Almatrafi, X Tang, B Shao, W Xia…	No

	(Ph.D) (Author), 2022	
Websites	https://www.sciencedirect.com/journal/separation-and-purification-technology/vol/292/suppl/C https://www.amazon.com/Separation-Purification-Methods-Edmond-Perry/dp/082476319X	

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	**(Arabic language) اللغة العربية**			**Module Delivery**	
Module Type	**B**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOA-112**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Bio		**College**	Middle East	
Module Leader	Mahdia Saleh Hassan		**e-mail**	Mahdiasaleh1953@gmail.com	
Module Leader's Acad. Title	Prof.		**Module Leader's Qualification**	Ph.D	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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	أ - تنمية معارف الطلبة للغة العربية، وأهميتها لهم. ب - أن يتعرف على شرح بعض سور القرآن الكريم، ويحفظها. ت- ان يتعرف الطالب على تاريخ الأدب، وأهم مراحل تطوره . ث- الاطلاع على شعراء لم يسبق للطالب التعرف عليهم ج- أن يضبط الطلبة كتابة الأملاء وعلامات الترقيم.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. القدرة على الحفظ والاستذكار 2. القدرة على الموازنة بين لغة ادب العصر المذكور والآداب الاخرى. 3. القدرة على المشاركة الجماعية للمحتويات الادبية للمادة 4. القدرة على تقديم المقترحات وحل المشكلات 5. القدرة على التفاعل مع المصادر والمراجع
Indicative Contents المحتويات الإرشادية	القران الكريم- سور ة الملك ، الآيات 1-10 ، القواعد، المبتدأ والخبر الأدب- مصطلح الأدب والعصور الأدبية الإملاء- كتاب الهمزة القران الكريم- سور ة الملك الآيات 11-20 القواعد- كان وأخواتها الأدب- قصيدة قم للمعلم لأحمد شوقي الإملاء- كتابة الضاد والظاء القران الكريم- سور ة الملك الآيات 21-30 القواعد- إن وأخواتها الأدب- قصيدة اللغة العربية لحافظ إبراهيم الإملاء- علامات الترقيم القواعد- التوابع الأدب- النثر العربي، المقامات الأدبية

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	تعبر استراتيجيات التراكيب عن قواعد تراكيب اللغة العربية، حيث أن أفضل أسلوب في تدريس القواعد النحوية، وهو الأسلوب الطبيعي الذي يعتمد على ممارسة اللغة استماعا، وكلاما، وقراءة، وكتابة، وعلى هذا الأساس فالاستعمال كما يقول ابن خلدون: ومحاكاة الأساليب اللغوية الصحيحة، والتدريب عليها تدريبا متصلا، هو الأسلوب الأمثل في تدريس القواعد النحوية، ومن ثم لا بد أن يفسح المدرس أمام التلاميذ المجال في دروس الاستماع، والتعبير والقراءة للتدريب على القواعد النحوية، حيث يشعرون بحاجتهم إليها للفهم والتعبير والكتابة دون ضغط أو إرغام. إضافة الى: 1 - استراتيجية الحوار 2 - استراتيجية السرد القصصي 3 - التدريس باستخدام التكنولوجيا 4 - استراتيجية إعداد المشاريع... 5 - استراتيجية تبادل الأدوار

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
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**	5	10% (10)	2 to 12	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	2 to 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)		
	Essays	2	10% (10)	6,13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	1hr	10% (10)	7	LO #1 - #7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	القران الكريم- سور ة الملك (الآيات 1-10)
Week 2	القواعد- المبتدأ والخبر
Week 3	الأدب- مصطلح الأدب والعصور الأدبية
Week 4	الإملاء- كتاب الهمزة
Week 5	القران الكريم- سور ة الملك (الآيات 11-20)
Week 6	القواعد- كان وأخواتها
Week 7	**first-term Exam**
Week 8	الأدب- قصيدة قم للمعلم لأحمد شوقي
Week 9	الإملاء- كتابة الضاد والظاء

Week 10	القران الكريم- سور ة الملك (الآيات 21-30)
Week 11	القواعد- إن وأخواتها
Week 12	الأدب- قصيدة اللغة العربية لحافظ إبراهيم
Week 13	الأدب- النثر العربي، المقامات الأدبية
Week 14	الإملاء- علامات الترقيم
Week 15	القواعد- التوابع
Week 16	**final-term Exam**

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

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	كتاب اللغة العربية للأقسام غير الاختصاص	Yes
Recommended Texts	كتب اخرى ضمن الاختصاص ذات اسلوب أكاديمي مفصل	Yes
Websites		

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

(50 - 100)	**B -** Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (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	**Biophysics**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☒ **Lab**	
Module Code	**COS -113**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Bio		**College**	Sci	
Module Leader	Farid M. Mushib		**e-mail**	Fareedm1969@gmail.com	
Module Leader's Acad. Title	Assist professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	------	
Peer Reviewer Name	Name		**e-mail**	E-mail----	
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	**1. Identify the foundations and systems of physics and link them to daily life activities and human activities** **2. Knowledge of vector and scalar quantities and the basic units of physics. Study and transform vectors, and addition, subtraction and multiplication of vectors.** **3. Study of movement in one dimension and calculate the acting forces and their resultant** **4. Study of simple harmonic motion, heat, heat quantity, friction, electricity, energy, and work, and their relationship to living organisms.**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**5- A- Cognitive objectives** **6- A- 1 . Improving the level of comprehension (comprehension) developing the ability to interpret, predict and conclude** **7- A- 2 . Application capabilities development** **8- A-3. Providing the student with the ability to analyze** **9- A-4. Develop the student's ability to integrate ideas and information (synthesis level), which is the opposite of analysis** **10- A- 5. Evaluation: Developing the student's ability to make a judgment on the value of the material learned** **11- B- The skills objectives of the course** **12- B 1 . Improving the student's ability to observe** **13- B-2. To learn how to imitate and imitate.** **14- B-3. To learn the method of experimentation**
Indicative Contents المحتويات الإرشادية	**General and qualifying transferable skills (other skills related to employability and personal development).** **1. Teaching the student oral and written communication skills** **2. Using modern technological tools, such as computers, the Internet, and scientific programs for preparing reports, tables, figures, and presentations.** **3. Encouraging the student to work collectively within a work team** **4. Developing the student's abilities to make optimal use of time (time management).**

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

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
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**	5	10% (10)	Same week	LO #1, #3 ,#7, #9, #11,#13
	Assignments	5	10% (10)	Each following week	LO #2, #4, #6, #8,#10,#12
	Projects	1	10% (10)	Continuous	All
	Report/ Lab.	5	10% (10)	6,13	LO #3,#5, #7, #9,#11
Summative assessment	**Midterm Exam**	1hr	10% (10)	7	LO #1,#7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Vectors and their analysis with drawing .**
Week 2	**Numerical and vector multiplication with examples .**
Week 3	**Motion in one dimension.**
Week 4	**Free fall and examples.**
Week 5	**Simple harmonic motion.**

Week 6	Classic Mechanics.
Week 7	Mid Exam
Week 8	Newton's laws of motion.
Week 9	Force and friction force
Week 10	Mathematical examples of force
Week 11	Work and its types
Week 12	Ability and examples
Week 13	Heat and amount of heat
Week 14	Optics.
Week 15	Static electricity
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: An introduction to the physics laboratory and tools
Week 2	Lab 2: Resultant force experiment.
Week 3	Lab 3: The squid pendulum experiment.
Week 4	Lab 4: Experiment to achieve Hooke's law.
Week 5	Lab 5: Fluid density experiment.
Week 6	Lab 6: Free Fall Experience.
Week 7	Lab 7: Ohm's law experiment.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	4- ''Mechanics Principles and Applications'' part one, Dr. Hazem Falah Sakeek Associated Professor of Physics Al-Azhar University – Gaza (2001)	Yes
Recommended Texts	1- ''Mechanics Principles and Applications'' part one, Dr. Hazem Falah Sakeek Associated Professor of Physics Al-Azhar University – Gaza (2001) 2- ''Electrostatic Principles and Applications'' part two, Dr.	No

	Hazem Falah Sakeek Associated Professor of Physics Al-Azhar University – Gaza (2001)	
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 Zoology**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**BIO-111**				
ECTS Credits	**8**				
SWL (hr/sem)	**200**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Bio		**College**	Middle East	
Module Leader	Amna Kanaan Ahmen		**e-mail**	aamna.ahmed2302@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant Lect.		**Module Leader's Qualification**	M.Sc.	
Module Tutor	Name (if available)		**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	**1. Develop an understanding of the diversity of animal life and an appreciation of the significance of various taxa.**

	2. **Demonstrate a basic understanding of the evolutionary history of the animal kingdom.** 3. **Develop an understanding of the form and function of animal systems.** 4. **Develop laboratory skills necessary for zoological study.**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. **Have developed an understanding of the diversity of animal life and an appreciation of the significance of various taxa.** 2. **Have developed a basic understanding of the evolutionary history of the animal kingdom.** 3. **Develop an understanding of the form and function of animal systems.** 4. **Develop laboratory skills necessary for zoological study.**
Indicative Contents المحتويات الإرشادية	**Zoology course covers three main themes:** **Comparative physiology - the functional characteristics of animals;** **Evolutionary biology - how animals adapt to their environment, and their genetics,** **Behaviour, ecology and conservation - how animals interact with their environment and each other to support biodiversity on the planet.** **Alongside your specialist zoology modules, you'll have the flexibility to study topics across the breadth of biology to complement your knowledge. These modules are available from your first year.** **Topics range from ecology and molecular genetics that underpin conservation, to pharmacology, neuroscience and even human physiology. This flexibility allows you to study zoology in greater depth, broaden your interests or even switch to another biosciences degree programme.**

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	**As a zoology student, students will learn in lots of different ways, from lectures and small group tutorials to learning by doing during field work, practical lab sessions and research projects.** **Our staff are committed to great teaching and students will have lots of opportunities throughout your degree to be creative, think independently, and express your ideas.**

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	94	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	106	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	7
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**	5	10% (10)	Same week	1, 2, 3, 4
	Assignments	5	10% (10)	Each following week	1, 2, 3, 4
	Projects / Lab.	5	10% (10)	2,4,6,8,12	1, 2, 3, 4
	Report	2	10% (10)	6, 10	3, 4
Summative assessment	**Midterm Exam**	1hr	10% (10)	7	1, 2, 3
	Final Exam	3hr	50% (50)	16	1, 2, 3, 4
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	View of life
Week 2	Introduction to biology
Week 3	Chemistry of life (part 1)
Week 4	Chemistry of life (part 2)
Week 5	Cell structure and function(1)
Week 6	Cell structure and function(2)
Week 7	Cell structure and function(3)
Week 8	Cell cycle and cellular reproduction
Week 9	Histology and animal tissue
Week 10	Ecology
Week 11	Exam
Week 12	Animal world
Week 13	Animal physiology

Week 14	Genetics
Week 15	Immunology
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Microscope
Week 2	Microscopic preparations
Week 3	Biochemical molecules
Week 4	Investigation of carbohydrates
Week 5	Animal cell (part 1)
Week 6	Animal cell (part 2)
Week 7	Biological experiments
Week 8	Animal tissue (1)
Week 9	Exam
Week 10	Animal tissue (2)
Week 11	Animal classification
Week 12	Anatomy of mice
Week 13	Blood picture
Week 14	DNA isolation from blood
Week 15	Blood groups
Week 16	**Preparatory week before the final Exam**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**Integrated Principles of Biology 16th Ed. By Hickman et al. 2014. McGraw Hill Higher Education. Boston, MA. ISBN-13: 978-0073524214 ISBN-10: 0073524212**	Yes
Recommended		No

Texts		
Websites		

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**(Human rights & freedom) حقوق انسان وحرية**			**Module Delivery**	
Module Type	**B**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOA-111**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Bio		**College**	Middle East	
Module Leader	Mahdia Saleh Hassan		**e-mail**	Mahdiasaleh1953@gmail.com	
Module Leader's Acad. Title	Prof.		**Module Leader's Qualification**	Ph.D	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	**1 - تمكين الطلبة من معرفة حقوق الانسان** **2-معرفة معنى الحرية والحقوق والواجبات** **3-معرفة مفهوم حقوق الانسان في الإسلام والقوانين الأممية**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	ا- ان يكون الطالب قادرا على معرفة حقوق الانسان والحريات . 2- ان يتعرف الطالب على معرفه تطور مفهوم الحرية في الإسلام. 3- ان يعرف الطالب مفهوم الدمقراطية 4 – اكتساب الطالب مفاهيم الحرية 5– يقف الطالب على مفهوم الحرية في الإسلام 6- -تمكن الطالب من معرفة العلاقة بين الحرية والحقوق
Indicative Contents المحتويات الإرشادية	1- تنشئه الطلبة على معرفه الحقوق والواجبات 2 - تعريف الطالب على مدلول الديمقراطية 3- معرفة الطالب بمفهوم الحرية والديمقراطية في الإسلام وفي انظمة الامم المتحدة

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	- توفير الدافع النفسية لتحقيق الأهداف الوجدانية. - الندوات والحلقات الدراسية - تكليف الطلبة بالبحوث - الطرائق الحديثة في التقويم - الطرائق التقليدية بالاعتماد على الملاحظة ومعرفة أفكار الطالب - القدرة على تحديد ومعرفة المفاهيم . - اكتساب المعرفة بالأنظمة والقوانين حول الحقوق الانسانية - مهارات فهم الديمقراطية في انظمة العالم

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
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	5	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)		
	Essays	2	10% (10)	6,13	LO #5, #8 and #10
Summative assessment	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	تعريف مصطلح الحرية
Week 2	حدود الحريات والضوابط
Week 3	الحريه عند العرب / المفهوم
Week 4	الحرية فلسفتها عند الامام علي (ع)
Week 5	مفهوم الحرية في الحضارات القديمه
Week 6	مراحل تطور مفهوم الحريات في اوربا
Week 7	الحريه والتحرر في أمريكا (التاريخ الحديث)
Week 8	first-term Exam
Week 9	إقرار حقوق الانسان (المفهوم)
Week 10	الحقوق الفرديه والجماعية
Week 11	إقرار حقوق الانسان في الحضارات القديمه
Week 12	مفهوم حقوق الانسان في الإسلام
Week 13	المعايير الثلاثه لحقوق الانسان
Week 14	عند الامام علي عليه السلام
Week 15	رساله الحقوق للامام زين العابدين (ع) مصطلحات ومفاهيم القانون الدولي
Week 16	final-term Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	حقوق الانسان : حميد حنون الدمقراطية التوافقية : ترجمة حسني زينه مجمع متعدد	Yes
Recommended Texts	البحوث المنشورة في الجامعات	Yes
Websites		

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**General Mathematics**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**COS-111**				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Biology		**College**	Middle East	
Module Leader	Farid M. Mahdi		**e-mail**	Fareedm1969@gmail.com	
Module Leader's Acad. Title	Assistant Prof.		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Non	**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	This module aims to provide students with the necessary topics such as mathematical (whether classical or probabilistic) concepts that can be applied in Biology. Students will have acquired fundamental skills in the evaluation of experiments, the interpretation of readings and numbers as well as the mathematical description of biological processes.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Mathematics is a very active and fast growing interdisciplinary area in which mathematical concepts, techniques, and models are applied to a variety of problems in developmental biology and biomedical sciences. Many biological processes can be quantitatively characterized by differential equations. This course introduces you to a variety of models mainly based on ordinary differential equations and techniques for analyzing these models. Mathematical concepts on nonlinear dynamics and chaos will be introduced. Use and interpret different types of data in biology. Apply knowledge of sampling to test hypotheses about problems. Interpret the results of analysis and communicate them in a clear, concise and appropriate manner. Discuss the principles of biology aspects and relate these to the decision-making and studies and the interpretation of results.
Indicative Contents المحتويات الإرشادية	lectures, tutorials, exercises and practice. Three-hours class and online lectures per week (total 45 hours). The tutorial will consist of a set questions put to the students to informally assess their understanding of the content of the lecture, to allow them to think about and solve example problems related to the lecture content, to express their understanding in English, and to correct any misunderstanding or gaps in their knowledge of the lecture's content.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises as well as a series of lectures and practice classes designed to introduce you to Mathematics. At the same time, they are refining and expanding their critical thinking skills through topics covered in lectures, including Modelling infectious disease transmission, Enzyme kinetics, modelling of molecular biology, and Descriptive and inferential statistics.

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

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	77	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	5	10% (10)	Continues	
	Assignments	5	10% (10)	Continues	
	Projects / Lab.	1	10% (10)	10	
	Report	2	10% (10)	4,10	
Summative assessment	**Midterm Exam**	1	10% (10)	7	
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to Calculus
Week 2	Slope of straight line
Week 3	Equation of straight line and circle
Week 4	Inequalities
Week 5	Absolute value function
Week 6	Graph of functions
Week 7	Limit and continuity
Week 8	Limit and continuity (continued)
Week 9	Derivative I
Week 10	Exam
Week 11	Derivative II

Week 12	Logarithmic functions
Week 13	Exponential function
Week 14	Trigonometric functions
Week 15	Applications of derivative
Week 16	**Preparatory week before the final Exam**

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Mathematical Modelling in Systems Biology: An Introduction. Brian P. Ingalls (2022). MIT Press.	No
Recommended Texts		No
Websites		

Grading Scheme
مخطط الدرجات

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

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

English Language MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**English Language**			**Module Delivery**	
Module Type	**B**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOA-003**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Bio		**College**	Middle East	
Module Leader	Hashim Garbet Abed		**e-mail**	krbthashm@gmail.com	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	M.Sc.	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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	to enable the learner to communicate effectively and appropriately in real life situation: b. to use English effectively for study purpose across the curriculum; c. to develop interest in and appreciation of Literature; d. to develop and integrate the use of the four language skills i.e. Reading, Listening, Speaking and Writing; e. to revise and reinforce structure already learnt.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Students will increase their awareness of correct usage of English grammar in writing and speaking. 2. Improve their speaking ability in English both in terms of fluency and comprehensibility. 3. Receive feedback on their performance through oral presentations. 4. Increase their reading speed and comprehension of academic articles. 5. improve their reading fluency skills through extensive reading. 6. Expand their vocabulary by keeping a vocabulary journal. 7. strengthen their ability to write academic papers, essays and summaries using the process approach.
Indicative Contents المحتويات الإرشادية	The course aims to develop communicative competence in English for intercultural contexts by teaching language items and communicative strategies essential for such scenarios, while at the same time giving students ample chances to output such items. The aims of this course are reflected in the content, which contains several themes, such as cultural awareness, intercultural awareness and English as a global language. Indicative content includes understanding the uniqueness of your own culture and other cultures, as well as being aware of the role culture plays in communication in English as a global language. In addition, this course allows for discussions about what it means for English to be a global language of communication and how misunderstandings and miscommunications when using English occurs. The course also includes practice in the pronunciation features that help improve intelligibility in intercultural contexts, namely the Lingua Franca Core.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Cultivate relationships Speaking with students to know each student, helps you understand who they are, where they come from and, perhaps, gain some insight into what teaching and learning styles are most effective for them. 2. Teach language skills across all curriculum topics 3. Speak slowly and be patient: Speaking in a slower, measured cadence Being a bit more aware of your pronunciation

	4. Prioritize “productive language” 5. Using a variety of methods to engage learning 6. Using visual aids by the use of pictures, diagrams, charts and other visual tools. 7. Coordinate with the ESL teacher: Such discussions can yield insights into individual students and their learning styles or challenges; they can also be helpful for sharing information about curriculum topics, potentially providing ESL teachers with ideas for highly relevant vocabulary words that can reinforce academic lessons. 8. Pre-teach new vocabulary words that may be unfamiliar to ELLs, or even to give them a copy of the article or link to the material ahead of time. 9. Build in some group work. 10. Respect moments of silence: Many new language learners tend to be a little reticent and quiet, opting for silence over speaking up and saying something “wrong” in a language that is still unfamiliar. Research-based strategies for differentiating instruction to promote student learning

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
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**	5	10% (10)	Continues	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	Continues	LO #3, #4 and #6, #7
	Projects / Lab.	1	10 % (10)	13	
	Essays	2	10% (10)	7-13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Unit-1 (Hello)
Week 2	Unit-2 (Your world)
Week 3	Unit-3 (Personal information)
Week 4	Unit-4 (Family and friends)
Week 5	Unit-5 (It's my life)
Week 6	Unit-6 (Every day)
Week 7	**Mid-term Exam**
Week 8	Unit-7 (Places I like)
Week 9	Unit-8 (Where I live)
Week 10	Unit-9 (Happy birthday)
Week 11	Unit-10 (We had a good time)
Week 12	Unit-11 (we can do it)
Week 13	Unit-12 (Thank you very much)
Week 14	Unit-13 (Here and now)
Week 15	Unit-14 (It's time to go)
Week 16	**final-term Exam**

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

Learning and Teaching Resources مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Headway. Beginner. Student's Book by Liz and John Soars, 2019.	Yes
Recommended Texts		No
Websites	https://elt.oup.com/student/headway/beg/?cc=global&selLanguage=en	

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 Botany**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**Bio-121**				
ECTS Credits	**8**				
SWL (hr/sem)	**200**				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Bio		**College**	Meddle east	
Module Leader	Osama Qasim Abdulameer		**e-mail**	osama.hash@yahoo.com	
Module Leader's Acad. Title	lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	**1- Giving the student a historical overview of botany and its branches** **The relationship of botany to other sciences** **The benefits of the plant for life and the environment** **botany components, types and locations**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**Teaching the student the nature of plant growth and its diagnosis** **Knowing the parts of a plant through its apparent appearance** **Knowing the different parts of the plant from an anatomical perspective**
Indicative Contents المحتويات الإرشادية	**1. Study of the morphological characteristics of plants** **2. Study of the diagnosis of the plant reproduction process** **3. Study of plant nutrition** **4. Study of types of tissues** **5. The student will gain experience in the process of diagnosing plants according to different families, knowing the external appearance of each part of the plant, and introducing the student to the anatomical sections of the different parts of the plant and using the microscope.**

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	**As a botany student, students will learn in lots of different ways, from lectures and small group tutorials to learning by doing during field work, practical lab sessions and research projects.** **Our staff are committed to great teaching and students will have lots of opportunities throughout your degree to be creative, think independently, and express your ideas.**

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	137	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	9
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**200**		

Module Evaluation تقييم المادة الدراسية				
	Time/Numbe	**Weight**	**Week Due**	**Relevant Learning**

		r	(Marks)		Outcome
Formative assessment	**Quizzes**	5	10% (10)	Same week	1, 3, 5,7,9
	Assignments	5	10% (10)	Each week	2, 4,6,8,10
	Projects	1	10% (10)	10	Each week
	Report/ Lab.	5	10% (10)	3, 6, 8,10,12	3, 5,7,9,11
Summative assessment	**Midterm Exam**	1hr	10% (10)	7	1, 2, 3,4,5,6
	Final Exam	3hr	50% (50)	16	All weeks
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	History of botany and its branches
Week 2	Study of the plant cell
Week 3	Plant cell functions and divisions
Week 4	The external appearance of the plant
Week 5	Study the root and stem
Week 6	The leaf, the flower, and the fruit
Week 7	Exam1
Week 8	Plant anatomy in terms of types of plant tissues and primary and secondary growth
Week 9	Plant physiology
Week 10	Classification of the plant kingdom
Week 11	Classification of the plant kingdom
Week 12	Gymnosperm plants
Week 13	Non-seed plants
Week 14	Non-vascular plants
Week 15	Plant anatomy in terms of types of plant tissues and primary and secondary growth
Week 16	Exam2

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Microscope
Week 2	Microscopic preparations
Week 3	Examining the plant with a microscope
Week 4	Examine the roots
Week 5	Examine the leg and its layers
Week 6	Examination of the components of the plant leaf
Week 7	**Exam1**
Week 8	Plant anatomy
Week 9	Plant physiology
Week 10	Laboratory cultivation
Week 11	Plant growth
Week 12	Classification of plants
Week 13	Comparison between some types of plants
Week 14	Review
Week 15	Review
Week 16	**Exam**2

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**General Plant, Volume One, written by Prof. Dr. Ahmed Shawky, Prof. Dr. Badri Al-Ani and others**	Yes
Recommended Texts		No
Websites		

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

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Organic Chemistry**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**COS-122**				
ECTS Credits	**7**				
SWL (hr/sem)	**175**				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Bio		**College**	Middle East	
Module Leader	Hamsa Munem Yaseen		**e-mail**	hamsa.m.y@hcoedu.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant Prof.		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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	**4. Introduce the student to the types of bonds in organic compounds** **5. Introducing the student to methods of preparation, properties and reactions of alkanes** **6. Introducing the student to the methods of preparation, properties and reactions of alkynes and alkenes** **7. Introducing the student to the methods of preparation, properties, and reactions of alkyl halides, alcohols, and carboxylic acids**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**15- The student knows the types of hybridization and chemical bonds in organic compounds** **16- The student knows how to write reaction equations and preparation methods for some of the studied compounds** **17- The student knows how to write and name the organic compounds studied in the course according to international rules** **18- The student's knowledge of methods for preparing the organic compounds studied theoretically and practically** **19- The student's knowledge of methods for separating and purifying organic materials theoretically and practically**
Indicative Contents المحتويات الإرشادية	**1-Developing the student's ability to deal with modern technical means** **2- Developing the student's ability to deal with the Internet** **3- Developing the student's ability to deal with multiple media** **4- Developing the student's ability to dialogue and discuss**

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

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	112	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	9
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**	5	10% (10)	Same week	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	Each week	LO #3, #4 and #6, #7,#9,#11,#13
	Projects	1	10% (10)	Continuous	All
	Report/ Lab.	5	10% (10)	3,5,7,10,13	LO #3, #5, #8 and #10
Summative assessment	**Midterm Exam**	1hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Structure and bonding**
Week 2	**Hybridization and Isomers**
Week 3	**Functional Group**
Week 4	**Naming of alkane and alkyl group**
Week 5	**Preparation and reaction**
Week 6	**Naming and alkene chemical Properties**
Week 7	**Organic solvents used in extraction and conditions to be met**
Week 8	**First month exam**
Week 9	**Preparation and reaction**
Week 10	**Naming and alkyne chemical Properties**
Week 11	**Preparation and reaction**
Week 12	**Naming and Properties**
Week 13	**Reactions**
Week 14	**Preparation and reaction**
Week 15	**Preparation and reaction**

Week 16	**the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	**Lab 1: Structure and bonding**
Week 2	**Lab 2: Hybridization and Isomers**
Week 3	**Lab 3: Functional Group**
Week 4	**Lab 4: Naming of alkane and alkyl group**
Week 5	**Lab 5: Naming and alkyne chemical Properties**
Week 6	**Lab 6: Preparation and reaction**
Week 7	**Lab 7: Preparation and reaction**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**Organic chemistry Morrison and Boyed**	Yes
Recommended Texts	Organic Chemistry By Graham and Selmios	No
Websites	Organic chemistry Francis Carey	

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	**Biostatistics**			**Module Delivery**	
Module Type	**B**			☒ **Theory** **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**BIO-123**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Biology		**College**	Middle East	
Module Leader	Farid M. Mahdi		**e-mail**	Fareedm1969@gmail.com	
Module Leader's Acad. Title	Assistant Prof.		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Non	**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	Know the types of distributions and focus on the normal distribution of data. 2 . Learn about determining the sufficient number of samples according to the data dispersion system. 3. Knowledge of the most important statistical tests used in biological research
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1.Enabling the student to choose the appropriate statistical analysis for the research problem. 2. Enabling the student to conduct factorial and non-factorial tests. 3. The skill of applying what the student learns during the course in his future professional life. 4. Skill in analyzing variation in biometrics.
Indicative Contents المحتويات الإرشادية	lectures, tutorials, exercises and practice. Two-hours class . The tutorial will consist of a set questions put to the students to informally assess their understanding of the content of the lecture, to allow them to think about and solve example problems related to the lecture content, to express their understanding in English, and to correct any misunderstanding or gaps in their knowledge of the lecture's content.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises as well as a series of lectures and practice classes designed to introduce you to Biostatistics. At the same time, they are refining and expanding their critical thinking skills through topics covered in lectures, including Modelling infectious disease transmission, Enzyme kinetics, modelling of molecular biology, and Descriptive and inferential statistics.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	102	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	7
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	5	10% (10)	Continues	1,2,3,4,5,6,7,8,9,10,11,12
	Assignments	5	10% (10)	Continues	1,2,3,4,5,6,7,8,9,10,11
	Projects	1	10% (10)	12	All
	Report/ Lab.	2	10% (10)	4,10	1,2,3,4,5,6,7,8,9,10
Summative assessment	Midterm Exam	1	10% (10)	7	1,2,3,4,5,6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to biostatistics
Week 2	Measures of central tendency
Week 3	Mode
Week 4	Measures of Variation or Dispersion
Week 5	Mean Deviation
Week 6	Standard Deviation and Variance
Week 7	Exam
Week 8	Coefficient of Variation
Week 9	Skewness
Week 10	Kurtosis
Week 11	Correlation
Week 12	The properties of correlation coefficient
Week 13	Regression
Week 14	simple linear regression
Week 15	Non- Linear Regression
Week 16	**final Exam**

Learning and Teaching Resources

مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Mathematical Modelling in Systems Biology: An Introduction. Brian P. Ingalls (2022). MIT Press.	No
Recommended Texts		No
Websites		

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Safety and biosecurity			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**BIO-122**				
ECTS Credits	**4**				
SWL (hr/sem)	**100**				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Biology		**College**	Middle East	
Module Leader	Hussein K. Sulaiman		**e-mail**	Dr-windawi@yahoo.com	
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	01/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1.The student learned the concepts of biosafety and biosecurity. 2 . Teaching the student how to deal with biological and chemical materials. 3. Teaching the student how to protect himself and his colleagues from dangerous biological and chemical materials.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1.Learn about local and international guidelines and how to apply them carefully. 2. Developing the student's ability to deal with intellectual questions and brainstorming. 3.Developing the spirit of maintaining personal and collective safety. 4.Expanding the student's ability to understand biosafety laws.
Indicative Contents المحتويات الإرشادية	1.Delivering theoretical lectures using Power Point. 2. Providing students with printed lectures in PDF format from modern and diverse scientific sources. 3. Ask direct questions and involve students in the discussion.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1.Monthly and semi-semester exams. 2. Direct short tests (Quiz) or electronic ones using (Quiz) Google Form.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	67	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**100**		

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

					Outcome
Formative assessment	Quizzes	5	10% (10)	Continues	1,3,5,7,9,11
	Assignments	5	10% (10)	Continues	2,4,6,8,10,12
	Projects	1	10% (10)	13	All
	Report/ Lab.	2	10% (10)	4,12	2,3,4,5,6,7,8,9,10,11
Summative assessment	Midterm Exam	1	10% (10)	7	1,2,3,4,5,6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to occupational safety
Week 2	The importance of biosafety
Week 3	Occupational risks
Week 4	Occupational risks
Week 5	Biosafety instructions
Week 6	Biosafety instructions
Week 7	Exam
Week 8	Work permits in laboratories
Week 9	Laboratory classification
Week 10	Laboratory classification
Week 11	Pathogenic microorganisms
Week 12	Pathogenic microorganisms
Week 13	Biological risks
Week 14	Biological risks
Week 15	Warning and advisory signs
Week 16	**final Exam**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Biosafety in laboratories World Health Organization (2004)	No

Recommended Texts	Science of Occupational Safety and Health Management by Dr. Youssef Al-Tayeb (2012)	No
Websites	**https://www.unep.org/ar/explore-topics/biosafety/about-alslamt-alahyayyt**	

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 ScienceI)**1 علم الحاسوب**			**Module Delivery**	
Module Type	**B**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOA-121**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level		1	**Semester of Delivery**		2
Administering Department		Bio	**College**	Middle East	
Module Leader	Mohammad Ali Fakhurlddin		**e-mail**	Muhammad.Falden92@gmail.com	
Module Leader's Acad. Title		Asst. Lecturer	**Module Leader's Qualification**		M.Sc
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date		01/10/2024	**Version Number**		1.0

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Study the principles of computer science and information technology 2. Study different types of modern computers

	3. Introducing the student to the most important components of the computer and its systems 4. Identify the types of computers used in various scientific fields 5. Identify the different types of operating systems used in computers
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. The student's knowledge of the main principles of computer science and information technology 2. Understand the different types of computers used in various fields 3. Knowing the most important components of a computer and what its parts are 4. Know how to manage and store data inside a computer 5. Knowledge of the most important operating systems used in computers 6. Know the most important computer applications used in various magazines
Indicative Contents المحتويات الإرشادية	The student studies the following most important topics: 1. Stages of computer development, in addition to a brief history of the most important ancient computers (6 hours) 2. General concepts in computer science in terms of types of data and methods of storing them inside the computer (5 hours) 3. Computer uses in addition to its various types (5 hours) 4. Study the physical components in detail and identify their most important components (8 hours) 5. Programming components and applications used in computers (8 hours) 6. Study numbering systems for computer science and learn about the most important ones (7 hours) 7. Calculating storage space for the primary memory and secondary memory (7 hours)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Enhancing and refining students' skills in using computers, training in using their own systems, and how to develop the capabilities of efficient use of the computer through interactive lectures in the laboratory, in addition to manuscripts, papers, methodological books, PPT lectures, and files.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
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**	5	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects	1	10% (10)	Continuous	All
	Report/ Lab.	2	10% (10)	8,13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	introduction to Computer ,hardware and software
Week 2	computer components
Week 3	Operating system and graphical user interface
Week 4	Ward processing
Week 5	Spread sheet
Week 6	Presentation software
Week 7	**Mid -Exam**
Week 8	Software components
Week 9	Introduction to internet and web browsers
Week 10	Application programs
Week 11	Communication and emails
Week 12	Communication and emails
Week 13	Computer troubleshooting
Week 14	Computer troubleshooting
Week 15	Exercises
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Identifying methods of installing and operating a computer
Week 2	Lab 2: Identify the most important physical components that make up a computer
Week 3	Lab 3: Applications on data storage methods and how to calculate them
Week 4	Lab 4: An application on one of the important operating systems for the computer
Week 5	Lab 5: Experimenting with some office applications on a computer
Week 6	Lab 6: Experiment and solve some counting systems used in computers
Week 7	Lab 7: Applying some anti-virus protection programs

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Book (Computer Basics and Office Applications), Part One	Yes
Recommended Texts		
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 Microbiology1			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	Bio-214				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	2		**Semester of Delivery**	3	
Administering Department	Bio		**College**	Meddle East University	
Module Leader	Bashar Sadeq Nooni		**e-mail**	Vetbashar@tu.edu.iq.	
Module Leader's Acad. Title	Prof.		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**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	This course covers the fundamental principles of microbiology by looking at the bacteria that live on our world and their impact on the ecosystem. This impact is examined in Introduction to Microbiology through the lens of all fields of microbiology. Students will evaluate the impact of microbiology as well as the problems and opportunities that result from our changing interaction with and understanding of microbes in the twenty-first century. Students will investigate the science of microbes as well as the social issues and concerns relevant to the field of microbiology, such as emerging infectious disease, antibiotic resistance, the anti-vaccine movement, and dual-use biological research, through short lectures, case studies, in-class group work, and homework projects.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1 .Describe the structural and functional differences that exist among all microorganisms. 2 .Apply fundamental principles of life chemistry to microbial metabolism and physiology. 3 .Evaluate the impact of microorganisms in their native settings on biosphere maintenance. 4 .Compare and contrast the interactions of microbes with hosts in health and disease. 5 .Identify important microbial relationships and demonstrate how these interactions affect plant and animal health. 6 .Describe the fundamental ideas underpinning the methods employed to restrict microbial development. 7 .Explain the flow and control of genetic information, as well as its impact on the evolution of life on Earth. 8. Investigate the use of bacteria in water safety and food production.
Indicative Contents المحتويات الإرشادية	The targeted general learning outcomes. Students who successfully complete the program will be able to: Demonstrate the improvement of practical/technical abilities. Analyze, assess, and appropriately interpret data. Effectively communicate and deliver information. As part of self-directed learning, obtain and use information from a range of sources. Within the context of self-directed learning, they manage their time and employ their organizational abilities.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The course grade will be based on exams, in-class participation & group work and homework assignments

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

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

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction to Microbiology
Week 2	Microbial Taxonomy and Domain System
Week 3	Classification of Bacteria part one
Week 4	Classification of Bacteria part 2 and Systematic Bacteriology
Week 5	Morphology of Bacteria
Week 6	Growth and physiology of bacteria part one
Week 7	Mid Term exam

Week 8	Growth and physiology of bacteria part two
Week 9	Cytoplasmic Membrane part one
Week 10	Cytoplasmic Membrane part two (active and passive transport)
Week 11	Growth curve and Factors Affecting Growth of Bacteria
Week 12	Metabolism Part one
Week 13	Metabolism Part two
Week 14	Electron Transport Chain
Week 15	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Biosafety procedure and precaution and microscope
Week 2	Tool, instruments and equipment
Week 3	Staining methods of bacteria
Week 4	Acid fast stains (Ziehl –Nielson technique) and special stains
Week 5	Capsules stain and their types
Week 6	Culture media preparation and their types
Week 7	Growing and cultivation of the bacterial species in the lab.
Week 8	Biochemical tests
Week 9	*Enterobactriaceae*
Week 10	*Ecoli* genus Klebsiella *Proteus* genus

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Microbiology: an introduction / Gerard J. Tortora, Berdell R. Funke, Christine L. Case. - 12th ed.	Yes
Recommended Texts	Microbiology-Textbooks. I. Funke, Berdell R. II. Case, Christine L., 1948- III . Title. [DNLM: I . Microbiology. QW 4 T712m 20 I 6 I	No
Websites	www.pearsonhighered.com	

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	**Plant anatomy**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	Bio 212				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	2		**Semester of Delivery**	3	
Administering Department	Bio		**College**	Meddle East University	
Module Leader	Osama Qasim Abdulameer		**e-mail**	osama.hash@yahoo.com	
Module Leader's Acad. Title	Lect.		**Module Leader's Qualification**	PhD.	
Module Tutor	Name (if available)		**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**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	**9. understanding the diversity of plant anatomy between different plants.** **10. Demonstrate a basic understanding of the evolutionary history of the plant tissue.** **11. understanding the form and function of plant tissue.** **12. Developing the laboratory skills necessary to study the anatomy of plant tissues.**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**8. Have developed an understanding of the diversity of plant anatomy and an appreciation of the significance of various taxa.** **9. Have developed a basic understanding of the evolutionary history of the plant tissue.** **10. Develop an understanding of the form and function of plant tissue.** **11. Develop laboratory skills necessary to study the anatomy of plant and its parts.**
Indicative Contents المحتويات الإرشادية	**Plant anatomy course covers three main themes:** • **It includes the study of the functions of various plant organs, the function of each organ, how plants adapt to their environment, and how they adapt anatomically and functionally. How plants interact with their environment** • **The student learns the basics of plant anatomy, how to make histological sections of different plants from different environments, and the histological and anatomical differences between them.** • **Topics range from ecology, cell science, plant physiology, and plant taxonomy. This flexibility allows you to study plant anatomy in greater depth, and expand your interests for a degree in plant biosciences**

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	**As a plant anatomy or botany student, students will learn in lots of different ways, from lectures and small group tutorials to learning by doing during field work, practical lab sessions and research projects.** **Our staff are committed to great teaching and students will have lots of opportunities throughout your degree to be creative, think independently, and express your ideas.**

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

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

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Definition of plant anatomy , plant cell, cell wall
Week 2	PROTOPLASMIC COMPONENTS (part 1)
Week 3	PROTOPLASMIC COMPONENTS (part 2)

Week 4	NONPROTOPLASMIC COMPONENTS (part 1)
Week 5	NONPROTOPLASMIC COMPONENTS (part 2)
Week 6	The tissues , meristematic tissues
Week 7	Exam
Week 8	Permanent Tissues
Week 9	The epidermis
Week 10	Vascular tissue, xylem
Week 11	Vascular tissue , phloem
Week 12	Root anatomy, longitudinal section
Week 13	Root anatomy , cross section
Week 14	The stem **,** structure of stem
Week 15	Stem, cross section
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Microscope
Week 2	**Microscopic preparations**
Week 3	Plant cell, living component
Week 4	**Plant cell, Non-living components**
Week 5	**Cell wall, primary pit fields**
Week 6	Cell wall, pits
Week 7	**Plant tissues , Meristematic Tissues**
Week 8	Plant tissue, permenant tissue
Week 9	Exam
Week 10	Parenchyma tissue
Week 11	Collenchyma tissue
Week 12	Sclerenchyma tissue
Week 13	The epidermis
Week 14	Vascular tissue, xylem, cross section of root
Week 15	Vascular tissue ,phloem, cross section of stem

Week 16	Preparatory week before the final Exam

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	**Evert, R. F. (2006). Esau's plant anatomy: meristems, cells, and tissues of the plant body: their structure, function, and development. John Wiley & Sons.**	Yes
Recommended Texts		No
Websites		

Grading Scheme
مخطط الدرجات (يترك بدون أي تغيير)

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	Entomology I			**Module Delivery**	
Module Type	C			☒ Theory ☐ Lecture ☒ Lab ☐ Practical	
Module Code	Bio-211				
ECTS Credits	4				
SWL (hr/sem)	100				
Module Level	2		**Semester of Delivery**	3	
Administering Department	Bio		**College**	Meddle East University	
Module Leader	Raneem Mohammed Abd Aljalel		**e-mail**	Ranem.alkinani.95@gmail.com	
Module Leader's Acad. Title	Assistant lecturer		**Module Leader's Qualification**	Ms.c	
Module Tutor	No T.		**e-mail**	E-mail…	
Peer Reviewer Name	…..		**e-mail**	…..	
Scientific Committee Approval Date	01/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1 Identify and distinguish types of insects. B. The student will be able to distinguish between beneficial and harmful insects. c. The possibility of dealing with insects in a scientific way.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Know the terminology used in entomology 2. The possibility of classifying insects scientifically and can distinguish different species and learn about their environment 3. Breeding insects in laboratories 4. pest control 5. How to deal with insects 6. methods of collecting insects 7. Methods of hardening and collecting insects 8. Delivering information to society in a scientific way 9. Identify the areas where insects are found

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises as well as a series of lectures and practical classes. At the same time refining and expanding their critical thinking skills through topics covered in lectures include what are insecta, their basic characteristics, structure and classification.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	37	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**100**		

Module Evaluation
تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction
Week 2	General classification of insects
Week 3	**General anatomy of the insect's**
Week 4	body, head area
Week 5	**Eyes and antea in an insects**
Week 6	**The thorax region in insects**
Week 7	Exam
Week 8	The thorax region in insects
Week 9	The thorax region in insects
Week 10	Digestive system in insects
Week 11	Digestive system in insects
Week 12	**The nervous system in insects**
Week 13	**The nervous system in insects**
Week 14	**Circulatory system in insects**
Week 15	**Circulatory system in insects**

Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Introduction
Week 2	General charecters of insects
Week 3	The Head and its types according mouth parts directs
Week 4	Antenna types
Week 5	Eyes
Week 6	Mouth parts(part1)
Week 7	Mouth parts (types 2)
Week 8	The legs
Week 9	The wings
Week 10	Scales dissection
Week 11	Couplings of wings
Week 12	Abdomen appendags
Week 13	Distinguish between genders
Week 14	Quizzes
Week 15	Assignments
Week 16	Projects

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1- PRACTICAL MANUAL CLASSIFICATION OF INSECTS((Prof. Neerja Agrawal Emeritus Professor (ICAR) 2021)) 2-The Insects(An Outline of Entomology) P.J. Gullan and P.S. Cranston/ Department of Entomology, University of California, Davis, USA	No
Recommended Texts	- PRACTICAL MANUAL CLASSIFICATION OF INSECTS((Prof. Neerja Agrawal Emeritus Professor (ICAR) 2021))	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 of BIOCHEMISTRY

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Biochemistry I**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	Bio-215				
ECTS Credits	**4.00**				
SWL (hr/sem)	**100**				
Module Level	**UGII**		**Semester of Delivery**	**3**	
Administering Department	**Bio. Dept.**		**College**	**Meddle East university**	
Module Leader	Hamsa Munem Yaseen		**e-mail**	hamsa.m.y@hcoedu.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant Prof.		**Module Leader's Qualification**	**Ph.D.**	
Module Tutor	**Name (if available)**		**e-mail**	**E-mail**	
Peer Reviewer Name	**Name**		**e-mail**	**E-mail**	
Scientific Committee Approval Date	**01/10/2024**		**Version Number**	**1.0**	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	**Bio-102 General Chemistry**	**Semester**	
Co-requisites module	**Analytical chemistry , Organic chemistry**	**Semester**	
Co-requisites module	**Inorganic chemistry**	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives **أهداف المادة الدراسية**	The module objectives of Basic Biochemistry 1 may vary depending on the specific course or educational institution. However, here are some common objectives that are typically covered in a Basic Biochemistry 1 module: 1. Introduction to Biochemistry: Understand the scope, importance, and basic principles of biochemistry as a scientific discipline. 2. Structure and Function of Biomolecules: Explore the structure, properties, and functions of biomolecules, including proteins, carbohydrates, lipids, and nucleic acids. 3.carbohydrate 4. Protein Structure and Function: Learn about the primary, secondary, tertiary, and quaternary structure of proteins and the relationship between structure and function. Understand protein folding, enzymes, and enzyme kinetics. 5. lipids. 6. Enzymes. 7. Hormones. 8. Vitamins and Minerals. These objectives provide a broad overview of the topics typically covered in a Basic Biochemistry 1 module, but the specific content and emphasis may vary from course to course.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The outcomes of this modules are to have ability to understand the following subject: 1. Carbohydrate Metabolism: Study the metabolism of carbohydrates, including glycolysis, gluconeogenesis, glycogen metabolism, and the regulation of blood sugar levels. 2. Protein Structure and Function: Learn about the primary, secondary, tertiary, and quaternary structure of proteins and the relationship between structure and function. Understand protein folding, enzymes, and enzyme kinetics. 3. Lipid Metabolism: Explore the metabolism of lipids, including fatty acid oxidation, lipogenesis, cholesterol metabolism, and the role of lipids in cellular membranes. 4. Nucleic Acids and DNA Replication: Understand the structure and function of nucleic acids, including DNA and RNA. Learn about DNA replication, transcription, and translation.

	5. Bioenergetics and Metabolism: Gain an understanding of the principles of bioenergetics and the metabolism of major biomolecules. Learn about ATP production, oxidative phosphorylation, and the regulation of metabolism. 5. Integration of Metabolic Pathways: Study the integration and coordination of different metabolic pathways in the cell. Understand how cells regulate metabolic processes to maintain homeostasis. 6. Techniques in Biochemistry: Familiarize yourself with common laboratory techniques used in biochemistry, such as chromatography, electrophoresis, spectrophotometry, and molecular biology techniques. 7. Biochemical Techniques and Applications: Learn about the applications of biochemistry in various fields, including medicine, biotechnology, pharmacology, and environmental science.
Indicative Contents مضمون المحتويات	Indicative content includes the following. The indicative contents of Basic Biochemistry may vary depending on the specific course or educational institution. However, here are some common topics and areas of study that are typically covered in a Basic Biochemistry course: 1. Introduction to Biochemistry: - Definition and scope of biochemistry - Historical overview of biochemistry - Importance and applications of biochemistry 2. Biomolecules: - Structure, properties, and functions of proteins - Structure, properties, and functions of carbohydrates - Structure, properties, and functions of lipids - Structure, properties, and functions of nucleic acids 3. Protein Structure and Function: - Primary, secondary, tertiary, and quaternary structure of proteins - Protein folding and stability - Enzymes and enzyme kinetics - Regulation of enzyme activity 4. Carbohydrate classifications and reactions: 5.Enzymes 6.Hormones: 7.Vitamins and Minerals

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Learning and teaching strategies in Basic Biochemistry aim to engage students in active learning, facilitate understanding of complex concepts, and develop critical thinking skills. Here are some common learning and teaching strategies employed in Basic Biochemistry courses: 1. Lectures: Lectures are often used to deliver foundational knowledge and concepts in biochemistry. They provide an overview of the topics, explain key principles, and highlight important details. Lectures may be supplemented with visual aids, such as slides or multimedia presentations, to enhance understanding. 2. Laboratory Work: Laboratory sessions allow students to apply theoretical knowledge to practical situations. They provide hands-on experience with biochemical techniques, data collection, analysis, and interpretation. Lab work may involve experiments related to biomolecule analysis, enzyme kinetics, or metabolic pathways. 3. Problem-solving Exercises: Problem-solving exercises and case studies help students apply their knowledge to real-life scenarios. They encourage critical thinking and problem-solving skills by presenting biochemical problems or experimental data for analysis and interpretation. Students may work individually or in groups to find solutions and explain their reasoning. 4. Interactive Discussions: Interactive discussions, such as small group discussions or classroom debates, promote active learning and peer-to-peer interaction. They allow students to ask questions, clarify doubts, and engage in meaningful discussions about biochemical concepts, experiments, or applications. 5. Concept Mapping: Concept mapping is a visual learning tool that helps students organize and connect different biochemical concepts. It involves creating diagrams or mind maps that illustrate the relationships between different biomolecules, metabolic pathways, or cellular processes. Concept maps can aid in understanding the "big picture" and identifying the interconnections within biochemistry. 6. Multimedia Resources: Incorporating multimedia resources, such as videos, animations, and interactive simulations, can enhance students' engagement and understanding of complex biochemical processes. These resources can visually illustrate molecular structures, enzyme kinetics, or cellular processes, making them more accessible and memorable. 7. Collaborative Learning: Collaborative learning activities, such as group projects or problem-solving tasks, encourage students to work together to solve biochemical problems or complete assignments. This fosters teamwork, communication, and the exchange of ideas, allowing students to learn from each other's perspectives and

	experiences. 8. Assessments: Assessments, such as quizzes, exams, and assignments, evaluate students' understanding and knowledge retention. They provide feedback on individual progress and help identify areas that require further review or clarification. Assessments may include multiple-choice questions, problem-solving tasks, or short essay questions. 9. Online Resources: Utilizing online resources, such as virtual labs, interactive tutorials, or online discussion forums, can provide additional learning opportunities outside of the classroom. These resources offer flexibility and accessibility, allowing students to review content at their own pace and seek additional support when needed. 10. Real-world Applications: Relating biochemistry concepts to real-world applications, such as medical advancements, biotechnology, or environmental issues, can enhance students' motivation and understanding. Exploring the practical relevance of biochemistry concepts helps students appreciate the significance of their learning and its impact in various fields. These strategies aim to create an active and engaging learning environment that promotes understanding, critical thinking, and application of biochemistry principles. The specific strategies employed may vary based on the teaching style, course format, and resources available to the instructor.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	37	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**100**		

Module Evaluation تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to biochemistry and living cells
Week 2	Introduction and principle of carbohydrates
Week 3	Classification of carbohydrates(monosaccharides, oligosacch., polysacch.)
Week 4	Diagnosis and reactions of carbohydrates
Week 5	Introduction and principle of Amino acids, peptides and proteins
Week 6	General properties, Classification and Diagnosis of amino acids
Week 7	General properties, Classification, Diagnosis and Determination of proteins.
Week 8	**Mid-term Exam**
Week 9	Introduction and principle of lipids
Week 10	General properties, Classification and Diagnosis of Lipids, Determination of lipids
Week 11	Discovery of enzymes, nomenclature, classification and characteristic of enzymes
Week 12	Mode of enzyme action, specificity of enzymes, Factors influencing enzyme activity, enzyme inhibition and chemotherapy.
Week 13	Introduction and principle of vitamin and coenzymes, Classification of vitamin
Week 14	Structure of nucleic acids, Classification of nucleic acid and DNA and RNA, Genetic code
Week 15	Diagnosis and determination of nucleic acids, Mutation and Genetic diseases, Central dogma
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Buffer and solutions preparations
Week 2	Molish test
Week 3	Fehling test
Week 4	Benedict test
Week 5	Ozasone formation
Week 6	Iodine test and Unknown test
Week 7	Ninhydrin test and Xanthoproteic test
Week 8	Sakaguchi test
Week 9	Milon test
Week 10	Protein test
Week 11	Solubility test of lipids
Week 12	Saponification test
Week 13	Acrolein test
Week 14	Enzymes test
Week 15	Vitamin C test

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Biochemistry books: Biochemistry by L. Stryer Harper, Text Book of Medical Biochemistry Lippincott, Lehninger principle of biochemistry Color atlas of biochemistry Fundamental of biochemistry	**Available Online**
Recommended Texts	Color atlas of biochemistry	No
Websites	Any website	

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	Invertebrates			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	Bio-213				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	2		**Semester of Delivery**	3	
Administering Department	Bio		**College**	Meddle East University	
Module Leader	Raneem Mohammed Abd Aljalel		**e-mail**	Ranem.alkinani.95@gmail.com	
Module Leader's Acad. Title	Assistant lecturer		**Module Leader's Qualification**	Msc.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	NON		**e-mail**		
Scientific Committee Approval Date	01/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Realize the importance of Invertebrates 2. Understand the scope and principles of. Invertebrates 3. Recognize parasitic criteria, adaptations and requirements from their hosts. 4. Illustrate the main Invertebrates animals with their life cycles. 5. Realize the impact of parasites on human health and economy. 6. Define the scope and importance of immunology. 7. Recognize the principles and types of immunity. 8. Identify the mechanisms of immune response. 9. Discuss the disorders of the immune system and their pathogenic impacts
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	A. Knowledge and understanding 1 - Parasitology: - Demonstrate the taxonomic affiliation of specific parasitic examples. 2 - Discuss the adaptations of Invertebrates and their host specificity. 3 - Compare the life cycles of various parasites. B. mental skills 1-Dissect selected Invertebrates examples. 2 - Identify the economic and medical losses due to Invertebrates infections. 3 - Gain the practical skills of identifying, classifying and drawing Invertebrates examples. C. Professional skills 1 - Immunology: -Correlate the immune disorders with certain pathological manifestation. 2 - Discuss the relation of immunity with allergy and environmental factors D. General skills 1 - Show the risk factors autoimmunity and the acquired immunity defecincy syndrome (AIDS) et
Indicative Contents المحتويات الإرشادية	1-Introducing Invertebrates 2-Medical veterinary and economic importance 3- Parasitic association, criteria and requirements 4- Invertebrates relationships. 5- Survery of various taxa of Invertebrates with life cycles of specific examples from: Protozoa-platyhelmenthes-nematodes-acanthocephala-arthropoda 6- Emphasis on local and human parasites with their distinctive features, impacts and control measures 7-Introducing immunology - Principles of immunology 8- Types of immunity - Specific and non specific 9- Innate and acquired - Tissue and humoral 10- Active and passive 11- Antigen- antibody reaction

	12- Immunity failure and diseases 13- Immunity and allergy 14- Immunity and transplantation. 15- Future prospects of immunology.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1 - Understanding parasitology as a term and its association in different fields. 2 - Identifying the stages of development of this topic and its achievements in various fields. 3 - Identify the most important techniques used to develop the ability to accurately diagnose parasites, develop the student's ability to describe and study parasites in different environments, and identify the classification keys to reach a knowledge of the genus and type of the parasite. 4 - Linking the theoretical information that the student had previously learned in the previous stages with its practical application in the laboratory.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	5	10% (10)	2,4,6,8,10, and 12	LO #1, #3,#5,#7,#9 and #11,
	Assignments	5	10% (10)	3,5,7,9,11, and 13	LO #2, #4 ,#6 and #8, #10,#12
	Projects	1	10% (10)	Continuous	All

	Report/ Lab.	5	10% (10)	2,4,6,8,10	LO #3, #5,#7 and #9#11
Summative assessment	**Midterm Exam**	1hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	General characteristics of Invertebrates
Week 2	Their benefits and harms Invertebrates environment
Week 3	Sexual reproduction of Invertebrates
Week 4	Asexual reproduction in Invertebrates
Week 5	Classification of Invertebrates
Week 6	Elementary Division
Week 7	Ciliate Division
Week 8	Division of Flatworms
Week 9	Phylum Sporoderms with a compound apex
Week 10	Cryptosporidium genus
Week 11	Condy's arcuate
Week 12	blood lace
Week 13	Imprtant of flagellate
Week 14	Nematodes
Week 15	**Platyhelminthes**
Week 16	**Sarcodina**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction and characteristics of invertebrates harmful and benefits
Week 2	Lab 2: kingdom of the vanguard
Week 3	Lab 3: kingdom of the vanguard

Week 4	Lab 4: sponges and cnidarians
Week 5	Lab 5: Platyhelminthes and cyst worm
Week 6	Lab 6: Annelida
Week 7	Lab 7: - Arthropoda
Week 8	Lab 8:- Mosses and Mollusca

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	©2006 by Dawit Assafa, Ephrem Kibru, S. Nagesh,, Solomon Gebreselassie, Fetene Deribe, Jemal Ali	No
Recommended Texts	DT John - 2012 - books.google.com	No
Websites	2019Jan.16 [cited 2023Jun.14];29(2). Available from: http://journal.tishreen.edu.sy/index.php/hlthscnc/article/view/6465	

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.

English Language MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**English Language**			**Module Delivery**	
Module Type	**B**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOA-004**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level	2		**Semester of Delivery**	3	
Administering Department	Bio		**College**	Middle East	
Module Leader	Hashim Garbet Abed		**e-mail**	krbthashm@gmail.com	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	M.Sc.	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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	to enable the learner to communicate effectively and appropriately in real life situation: b. to use English effectively for study purpose across the curriculum; c. to develop interest in and appreciation of Literature; d. to develop and integrate the use of the four language skills i.e. Reading, Listening, Speaking and Writing; e. to revise and reinforce structure already learnt.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	8. Students will increase their awareness of correct usage of English grammar in writing and speaking. 9. Improve their speaking ability in English both in terms of fluency and comprehensibility. 10. Receive feedback on their performance through oral presentations. 11. Increase their reading speed and comprehension of academic articles. 12. improve their reading fluency skills through extensive reading. 13. Expand their vocabulary by keeping a vocabulary journal. 14. strengthen their ability to write academic papers, essays and summaries using the process approach.
Indicative Contents المحتويات الإرشادية	The course aims to develop communicative competence in English for intercultural contexts by teaching language items and communicative strategies essential for such scenarios, while at the same time giving students ample chances to output such items. The aims of this course are reflected in the content, which contains several themes, such as cultural awareness, intercultural awareness and English as a global language. Indicative content includes understanding the uniqueness of your own culture and other cultures, as well as being aware of the role culture plays in communication in English as a global language. In addition, this course allows for discussions about what it means for English to be a global language of communication and how misunderstandings and miscommunications when using English occurs. The course also includes practice in the pronunciation features that help improve intelligibility in intercultural contexts, namely the Lingua Franca Core.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Cultivate relationships Speaking with students to know each student, helps you understand who they are, where they come from and, perhaps, gain some insight into what teaching and learning styles are most effective for them. 2. Teach language skills across all curriculum topics 3. Speak slowly and be patient: Speaking in a slower, measured cadence Being a bit more aware of your pronunciation 4. Prioritize “productive language”

	5. Using a variety of methods to engage learning 6. Using visual aids by the use of pictures, diagrams, charts and other visual tools. 7. Coordinate with the ESL teacher: Such discussions can yield insights into individual students and their learning styles or challenges; they can also be helpful for sharing information about curriculum topics, potentially providing ESL teachers with ideas for highly relevant vocabulary words that can reinforce academic lessons. 8. Pre-teach new vocabulary words that may be unfamiliar to ELLs, or even to give them a copy of the article or link to the material ahead of time. 9. Build in some group work. 10. Respect moments of silence: Many new language learners tend to be a little reticent and quiet, opting for silence over speaking up and saying something "wrong" in a language that is still unfamiliar. Research-based strategies for differentiating instruction to promote student learning

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
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**	5	10% (10)	Continues	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	Continues	LO #3, #4 and #6, #7
	Projects / Lab.	1	10 % (10)	13	
	Essays	2	10% (10)	7-13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Unit-1 (Hello)
Week 2	Unit-2 (Your world)
Week 3	Unit-3 (Personal information)
Week 4	Unit-4 (Family and friends)
Week 5	Unit-5 (It's my life)
Week 6	Unit-6 (Every day)
Week 7	**Mid-term Exam**
Week 8	Unit-7 (Places I like)
Week 9	Unit-8 (Where I live)
Week 10	Unit-9 (Happy birthday)
Week 11	Unit-10 (We had a good time)
Week 12	Unit-11 (we can do it)
Week 13	Unit-12 (Thank you very much)
Week 14	Unit-13 (Here and now)
Week 15	Unit-14 (It's time to go)
Week 16	**final-term Exam**

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

Learning and Teaching Resources مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Headway. Beginner. Student's Book by Liz and John Soars, 2019.	Yes
Recommended Texts		No
Websites	https://elt.oup.com/student/headway/beg/?cc=global&selLanguage=en	

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

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Plants groups**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**Bio-216**				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	2		**Semester of Delivery**	3	
Administering Department	Bio		**College**	Meddle East University	
Module Leader	Mujahid Ismail Hamdan		**e-mail**	muj1971m@Yahoo.com	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	01/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Identify the different types of plants groups and distinguish between vascular and non-vascular plants. 2. Study of cyanophyta and eukaryotic algae and their role in the environment. 3. Understanding the life cycles of algae, their types, and distinguishing between different generations of the same algae 4. Identify the different algae parts and their modifications 5. Study the mechanisms of sexual and asexual reproduction in different algae groups.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. 1Identify the most important plant groups and species in nature, their characteristics, and methods of reproduction and living. 2. 1Methods of feeding various plant groups (algae, ferns, mosses), their sexual and asexual reproduction, growth, nutritional needs, and methods of producing spores. 3. Knowing the most important functions that take place at the different tissues. 4. Know its different types 5. Understanding the mechanisms of sexual and asexual reproduction in different divisions 6. Identify the most important events that take place during the life cycle. 7. Microscopic examination of many samples from different places 8. Learn to prepare slides for various samples.
Indicative Contents المحتويات الإرشادية	plants Groups course covers four main themes: **Importance:** study of its importance from various medical, economic, agricultural, and environmental aspects. **Classification:** Dividing algae into groups according to the degree of similarity between them in genetic components and morphology **External morphology:** Studying the external structure of algae and its various parts **Their nutrition and life cycles:** Learn about the methods of nutrition for different types of algae, as well as their life cycles in different forms.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises as well as a series of lectures and practical classes designed to introduce you to plants groups. At the same time, refining and expanding their critical thinking skills through topics covered in lectures include what are algae, their basic characteristics, nutrition, and life cycle. An interactive tutorial and by considering types of simple experiments In methods of preparing slides, identifying the shapes of algae, and observing some important phenomena in the in the reproductive stage.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

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

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Algae,their importance, presence, nutrition,Forms of algae
Week 2	Reproduction in algae, growth in algae, life cycle of algae, classification of algae
Week 3	Cyanophyta
Week 4	Chlorophyta
Week 5	Chlorophyta
Week 6	Euglenophyta
Week 7	**Mid-term Exam**
Week 8	Chrysophyta
Week 9	Phaeophyta
Week 10	Phaeophyta
Week 11	Pyrrophyta
Week 12	Rhodophyta
Week 13	Mosses
Week 14	Ferns
Week 15	Seed plants
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Introduction to algae, methods of isolating them, the most important laboratory equipment, and sterilization methods
Week 2	Shapes of algae and spors.
Week 3	Shapes of algal colonies and aggregations
Week 4	Project
Week 5	Cyanophyta slides
Week 6	Chlorophyta slides
Week 7	**Midterm exam**
Week 8	Euglenophyta slides
Week 9	Chrysophyta slides
Week 10	Phaeophyta slides

Week 11	Pyrrophyta slides
12	Collect samples from ponds and prepare slides with diagnosis
13	Rhodophyta slides
14	Project Discussion

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	-Freshwater Algae of North America (Second dition)Ecology and Classification Aquatic Ecology 2015, Pages 459-483 -Al-Kandari, M.; Al-Yamani, F. and Al-Rifaie, k. (2009). Marine phytoplankton atlas of Kuwait's waters. Kuwait Institute for Scientific Research, P.O. Box, 2488, 13109, Kuwait. -Desikachary, t. V. (1959). Cyanophyta Indian. Council of Agricultural Research, New Delhi, India. -Komárková, Jarka; Jezberová, Jitka; Komárek, Ondřej; Zapomělová, Eliška (2010). "Variability of Chroococcus (Cyanobacteria) morphospecies with regard to phylogenetic relationships". Hydrobiologia. 639: 69–83.	No
Recommended Texts		No
Websites	-https://www.britannica.com -https://www.vcbio.science.ru.nl/en/virtuallessons/redalgae - http://micro.magnet.fsu.edu/featuredmicroscopist/vanegmond/chroococcussmall.html	

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

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	General Microbiology II			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	Bio-224				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	2		**Semester of Delivery**	4	
Administering Department	Bio		**College**	Meddle East University	
Module Leader	Bashar Sadeq Nooni		**e-mail**	Vetbashar@tu.edu.iq.	
Module Leader's Acad. Title	Prof.		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Bio-101	**Semester**	1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture

	methods, and identification of microorganisms.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Comparative characteristics of microbial organisms 2. General bacteriology and microbial techniques. 3. Microbial metabolism and enzymes. 4. Physical and chemical microbial control 5. Collection and handling of laboratory specimens. 6. Microbial genetics, mutation and biotechnology. 7. Pathogenicity, virulence, and epidemiology 8. Disease transmission and control of nosocomial infections 9. Body defenses, immunology, and hypersensitivity 10. Common bacterial, fungal, and viral diseases. 11. Experimentation in clinical scenarios.
Indicative Contents المحتويات الإرشادية	The targeted general learning outcomes. Students who successfully complete the program will be able to: Demonstrate the improvement of practical/technical abilities. Analyze, assess, and appropriately interpret data. Effectively communicate and deliver information. As part of self-directed learning, obtain and use information from a range of sources. Within the context of self-directed learning, they manage their time and employ their organizational abilities.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The course grade will be based on exams, in-class participation & group work and homework assignments

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

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

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

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Replication, Transcription, Translation
Week 2	Mutations and Genetic Control
Week 3	Microbial Interactions – The Build Environment, The Human Microbiome
Week 4	Microbial Ecosystems
Week 5	Microbial Diversity – Prokaryotes and Eukaryotes
Week 6	Microbial Diversity – Viruses
Week 7	Mid Term exam
Week 8	Epidemiology
Week 9	Pathogenicity, Immunity, Immune disorders
Week 10	Control of Microbes
Week 11	Clinical Microbiology
Week 12	Diseases of the gastrointestinal tract
Week 13	Diseases of the respiratory tract
Week 14	**Diseases of the genitourinary tract**
Week 15	**Diseases of the blood and lymph**
Week 16	**Preparatory week before the final Exam**

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

Week 1	Serial dilution
Week 2	Antimicrobial sensitivity
Week 3	Advanced Biochemical test
Week 4	DNA extraction
Week 5	Transformation
Week 6	Electrophoresis
Week 7	Pathogens identification
Week 8	Poster project
Week 9	Poster project
Week 10	Poster presentation

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Microbiology: an introduction / Gerard J. Tortora, Berdell R. Funke, Christine L. Case. - 12th ed.	Yes
Recommended Texts	Microbiology-Textbooks. I. Funke, Berdell R. II. Case, Christine L., 1948- III . Title. [DNLM: I . Microbiology. QW 4 T712m 20 I 6 I	No
Websites	www.pearsonhighered.com	

Grading Scheme
مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	(Computer Science II) **علم الحاسوب2**			**Module Delivery**	
Module Type	**B**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOA-008**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level	2		**Semester of Delivery**	4	
Administering Department	Bio		**College**	Middle East	
Module Leader	Mohammad Ali Fakhurlddin		**e-mail**	Muhammad.Falden92@gmail.com	
Module Leader's Acad. Title	Asst. Lecturer		**Module Leader's Qualification**	M.Sc	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	01/10/2024		**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	6. Study the principles of computer science and information technology 7. Study different types of modern computers

	8. Introducing the student to the most important components of the computer and its systems 9. Identify the types of computers used in various scientific fields 10. Identify the different types of operating systems used in computers
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. The student's knowledge of the main principles of computer science and information technology 2. Understand the different types of computers used in various fields 3. Knowing the most important components of a computer and what its parts are 4. Know how to manage and store data inside a computer 5. Knowledge of the most important operating systems used in computers 6. Know the most important computer applications used in various magazines
Indicative Contents المحتويات الإرشادية	The student studies the following most important topics: 1. Stages of computer development, in addition to a brief history of the most important ancient computers (6 hours) 2. General concepts in computer science in terms of types of data and methods of storing them inside the computer (5 hours) 3. Computer uses in addition to its various types (5 hours) 4. Study the physical components in detail and identify their most important components (8 hours) 5. Programming components and applications used in computers (8 hours) 6. Study numbering systems for computer science and learn about the most important ones (7 hours) 7. Calculating storage space for the primary memory and secondary memory (7 hours)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Enhancing and refining students' skills in using computers, training in using their own systems, and how to develop the capabilities of efficient use of the computer through interactive lectures in the laboratory, in addition to manuscripts, papers, methodological books, PPT lectures, and files.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
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	5	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects	1	10% (10)	Continuous	All
	Report/ Lab.	2	10% (10)	8,13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Security and network
Week 2	E-commerce
Week 3	Computer troubleshooting
Week 4	Introduction to Al
Week 5	Al in our daily lives
Week 6	Applications of Al
Week 7	**Mid –Exam**
Week 8	Al and society
Week 9	Al and society
Week 10	Ethical challenges in Al
Week 11	Ethical challenges in Al
Week 12	The future of Al
Week 13	The future of Al
Week 14	Exercises
Week 15	Exercises
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Identifying methods of installing and operating a computer
Week 2	Lab 2: Identify the most important physical components that make up a computer
Week 3	Lab 3: Applications on data storage methods and how to calculate them
Week 4	Lab 4: An application on one of the important operating systems for the computer
Week 5	Lab 5: Experimenting with some office applications on a computer
Week 6	Lab 6: Experiment and solve some counting systems used in computers
Week 7	Lab 7: Applying some anti-virus protection programs

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	Book (Computer Basics and Office Applications), Part One	Yes
Recommended Texts		
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	Entomology II			**Module Delivery**	
Module Type	C			☒ Theory ☐ Lecture ☒ Lab ☐ Practical	
Module Code	Bio-221				
ECTS Credits	4				
SWL (hr/sem)	100				
Module Level	2		**Semester of Delivery**	4	
Administering Department	Bio		**College**	Meddle East University	
Module Leader	Raneem Mohammed Abd Aljalel		**e-mail**	Ranem.alkinani.95@gmail.com	
Module Leader's Acad. Title	Assistant lecturer		**Module Leader's Qualification**	Assistant lecturer	
Module Tutor			**e-mail**	E-mail	
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	1/10/2024		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Bio-211	**Semester**	3
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1 Identify and distinguish types of insects. B. The student will be able to distinguish between beneficial and harmful insects. c. The possibility of dealing with insects in a scientific way.

Module Learning Outcomes مخرجات التعلم للمادة الدراسية	10. Know the terminology used in entomology 11. The possibility of classifying insects scientifically and can distinguish different species and learn about their environment 12. Breeding insects in laboratories 13. pest control 14. How to deal with insects 15. methods of collecting insects 16. Methods of hardening and collecting insects 17. Delivering information to society in a scientific way 18. Identify the areas where insects are found

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises as well as a series of lectures and practical classes. At the same time refining and expanding their critical thinking skills through topics covered in lectures include what are insecta, their basic characteristics, structure and classification.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	37	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**100**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	5	10% (10)	2,4,6,8 , 10	LO #1, #2, #4, #6, #8 and #10, #11

	Assignments	5	10% (10)	2 to 12	LO #3, #4 and #6, #7, #9
	Projects	1	10% (10)	Continuous	All
	Report/ Lab.	2	10% (10)	6,12	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	To study about characters of Phylum Arthropoda.
Week 2	classification of insects
Week 3	characters and classification of order Orthoptera.
Week 4	characters and classification of order Hemiptera.
Week 5	characters and classification of order Phtheraptera.
Week 6	characters and classification of order Lepidoptera.
Week 7	Mid exam
Week 8	characters and classification of order Hymenoptera.
Week 9	characters and classification of order Diptera
Week 10	characters and classification of order Coleoptera
Week 11	characters and classification of order Isoptera.
Week 12	characters and classification of order Neuroptera.
Week 13	Identification for different Orders using pictorial keys
Week 14	key to major families of Orthoptera, Hemiptera (Heteroptera , Homoptera) and Coleoptera
Week 15	**Entomological methods.**
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Orthoptera.
Week 2	Lab 2; Hemiptera.

Week 3	Lab 3: Phtheraptera.
Week 4	Lab 4; Lepidoptera.
Week 5	Lab 5: Hymenoptera.
Week 6	Lab 6: Diptera and Neuroptera.
Week 7	Lab 7: Coleoptera and Isoptera.

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1- PRACTICAL MANUAL CLASSIFICATION OF INSECTS((Prof. Neerja Agrawal Emeritus Professor (ICAR) 2021)) 2-The Insects(An Outline of Entomology) P.J. Gullan and P.S. Cranston/ Department of Entomology, University of California, Davis, USA	No
Recommended Texts	- PRACTICAL MANUAL CLASSIFICATION OF INSECTS((Prof. Neerja Agrawal Emeritus Professor (ICAR) 2021))	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	**parasitology**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**Bio-223**				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	2		**Semester of Delivery**	4	
Administering Department	Bio		**College**	Meddle East University	
Module Leader	Raneem Mohammed Abd Aljalel		**e-mail**	Ranem.alkinani.95@gmail.com	
Module Leader's Acad. Title	Assistant lecturer		**Module Leader's Qualification**	PhD.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	NON		**e-mail**		
Scientific Committee Approval Date	01/10/2024		**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	10. Realize the importance of parasitology. 11. Understand the scope and principles of parasitology. 12. Recognize parasitic criteria, adaptations and requirements from their hosts. 13. Illustrate the main parasitic animals with their life cycles. 14. Realize the impact of parasites on human health and economy. 15. Define the scope and importance of immunology. 16. Recognize the principles and types of immunity. 17. Identify the mechanisms of immune response. 18. Discuss the disorders of the immune system and their pathogenic impacts
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	E. Knowledge and understanding 1 - Parasitology: - Demonstrate the taxonomic affiliation of specific parasitic examples. 2 - Discuss the adaptations of parasites and their host specificity. 3 - Compare the life cycles of various parasites. F. mental skills 1-Dissect selected parasitic examples. 2 - Identify the economic and medical losses due to parasitic infections. 3 - Gain the practical skills of identifying, classifying and drawing parasitic examples. G. Professional skills 1 - Immunology: -Correlate the immune disorders with certain pathological manifestation. 2 - Discuss the relation of immunity with allergy and environmental factors H. General skills 1 - Show the risk factors autoimmunity and the acquired immunity defecincy syndrome (AIDS) et
Indicative Contents المحتويات الإرشادية	1-Introducing parasitology 2-Medical veterinary and economic importance 3- Parasitic association, criteria and requirements 4- Host-parasitic relationships. 5- Survery of various taxa of parasites with life cycles of specific examples from: Protozoa-platyhelmenthes-nematodes-acanthocephala-arthropoda 6- Emphasis on local and human parasites with their distinctive features, impacts and control measures 7-Introducing immunology - Principles of immunology 8- Types of immunity - Specific and non specific 9- Innate and acquired - Tissue and humoral 10- Active and passive 11- Antigen- antibody reaction 12- Immunity failure and diseases

	13- Immunity and allergy 14- Immunity and transplantation. 15- Future prospects of immunology.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1 - Understanding parasitology as a term and its association in different fields. 2 - Identifying the stages of development of this topic and its achievements in various fields. 3 - Identify the most important techniques used to develop the ability to accurately diagnose parasites, develop the student's ability to describe and study parasites in different environments, and identify the classification keys to reach a knowledge of the genus and type of the parasite. 4 - Linking the theoretical information that the student had previously learned in the previous stages with its practical application in the laboratory.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	5	10% (10)	3 to 12	LO #2, #4 , #6 , #8, #10, #12
	Assignments	5	10% (10)	2 to 12	LO #3, #4, #6, #8 and #10, #12
	Projects	1	10% (10)	Continuous	All

	Report/ Lab.	2	10% (10)	6 ,13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	General characteristics of parasites
Week 2	Their benefits and harms parasite environment
Week 3	Sexual reproduction of parasites
Week 4	Asexual reproduction in parasites
Week 5	Classification of parasites
Week 6	Elementary Division
Week 7	Ciliate Division
Week 8	Division of Flatworms
Week 9	Phylum Sporoderms with a compound apex
Week 10	Cryptosporidium genus
Week 11	Condy's arcuate
Week 12	blood lace
Week 13	Imprtant of flagellate
Week 14	Nematodes
Week 15	**platyhelminthes**
Week 16	**sarcodina**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: ntroduction of parasitology
Week 2	Lab 2: Type of parasite
Week 3	Lab 3: Types of hosts

Week 4	Lab 4: Diagnosis of Parasitic Diseases
Week 5	Lab 5: FILARIASIS, LEISHMANIASIS, TOXOPLASMOSIS & TRYPANOSOMIASIS
Week 6	Lab 6: INTESTINAL AND UROGENITAL PROTOZOA COLLECTION OF FAECAL SAMPLES
Week 7	Lab 7: - INTESTINAL NEMATODES

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	©2006 by Dawit Assafa, Ephrem Kibru, S. Nagesh,, Solomon Gebreselassie, Fetene Deribe, Jemal Ali	No
Recommended Texts	DT John - 2012 - books.google.com	No
Websites	2019Jan.16 [cited 2023Jun.14];29(2). Available from: http://journal.tishreen.edu.sy/index.php/hlthscnc/article/view/6465	

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	**(Arabic language II) 2 اللغة العربية**			**Module Delivery**	
Module Type	**B**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOA-002**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level	2		**Semester of Delivery**	4	
Administering Department	Bio		**College**	Middle East	
Module Leader	Mahdia Saleh Hassan		**e-mail**	Mahdiasaleh1953@gmail.com	
Module Leader's Acad. Title	Prof.		**Module Leader's Qualification**	Ph.D	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	01/10/2024		**Version Number**	2.0	

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	أ - تنمية معارف الطلبة للغة العربية، وأهميتها لهم. ب - أن يتعرف على شرح بعض سور القرآن الكريم، ويحفظها. ت- ان يتعرف الطالب على تاريخ الأدب، وأهم مراحل تطوره . ث- الاطلاع على شعراء لم يسبق للطالب التعرف عليهم ج- أن يضبط الطلبة كتابة الأملاء وعلامات الترقيم.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. القدرة على الحفظ والاستذكار 2. القدرة على الموازنة بين لغة ادب العصر المذكور والآداب الاخرى. 3. القدرة على المشاركة الجماعية للمحتويات الادبية للمادة 4. القدرة على تقديم المقترحات وحل المشكلات 5. القدرة على التفاعل مع المصادر والمراجع
Indicative Contents المحتويات الإرشادية	القران الكريم- سور ة الملك ، الآيات 1-10 ، القواعد، المبتدأ والخبر الأدب- مصطلح الأدب والعصور الأدبية الإملاء- كتاب الهمزة القران الكريم- سور ة الملك الآيات 11-20 القواعد- كان وأخواتها الأدب- قصيدة قم للمعلم لأحمد شوقي الإملاء- كتابة الضاد والظاء القران الكريم- سور ة الملك الآيات 21-30 القواعد- إن وأخواتها الأدب- قصيدة اللغة العربية لحافظ إبراهيم الإملاء- علامات الترقيم القواعد- التوابع الأدب- النثر العربي، المقامات الأدبية

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	تعبر استراتيجيات التراكيب عن قواعد تراكيب اللغة العربية، حيث أن أفضل أسلوب في تدريس القواعد النحوية، وهو الأسلوب الطبيعي الذي يعتمد على ممارسة اللغة استماعا، وكلاما، وقراءة، وكتابة، وعلى هذا الأساس فالاستعمال كما يقول ابن خلدون: ومحاكاة الأساليب اللغوية الصحيحة، والتدريب عليها تدريبا متصلا، هو الأسلوب الأمثل في تدريس القواعد النحوية، ومن ثم لا بد أن يفسح المدرس أمام التلاميذ المجال في دروس الاستماع، والتعبير والقراءة للتدريب على القواعد النحوية، حيث يشعرون بحاجتهم إليها للفهم والتعبير والكتابة دون ضغط أو إرغام. إضافة الى: 6 - استراتيجية الحوار 7 - استراتيجية السرد القصصي 8 - التدريس باستخدام التكنولوجيا 9 - استراتيجية إعداد المشاريع... 10 - استراتيجية تبادل الأدوار

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
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**	5	10% (10)	2 to 12	LO #1, #2 and #10, #11
	Assignments	5	10% (10)	2 to 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)		
	Essays	2	10% (10)	6,13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	1hr	10% (10)	7	LO #1 - #7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	القران الكريم- سور ة الملك (الآيات 1-10)
Week 2	القواعد- المبتدأ والخبر
Week 3	الأدب- مصطلح الأدب والعصور الأدبية
Week 4	الإملاء- كتاب الهمزة
Week 5	القران الكريم- سور ة الملك (الآيات 11-20)
Week 6	القواعد- كان وأخواتها
Week 7	**first-term Exam**
Week 8	الأدب- قصيدة قم للمعلم لأحمد شوقي
Week 9	الإملاء- كتابة الضاد والظاء

Week 10	القران الكريم- سور ة الملك (الآيات 21-30)
Week 11	القواعد- إن وأخواتها
Week 12	الأدب- قصيدة اللغة العربية لحافظ إبراهيم
Week 13	الأدب- النثر العربي، المقامات الأدبية
Week 14	الإملاء- علامات الترقيم
Week 15	القواعد- التوابع
Week 16	**final-term Exam**

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

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	كتاب اللغة العربية للأقسام غير الاختصاص	Yes
Recommended Texts	كتب اخرى ضمن الاختصاص ذات اسلوب أكاديمي مفصل	Yes
Websites		

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

(50 - 100)	**B -** Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (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.