Course Description

English Language MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية							
Module Title	E	nglish Language		Modu	Module Delivery		
Module Type		Support		☑ Theory			
Module Code		UNI-123			☑ Lecture		
ECTS Credits		3			□Lab		
				☐ Tutorial			
SWL (hr/sem)		75		☐ Practical			
				☐ Seminar			
Module Level		1	Semester of Delivery		у	2	
Administering Dep	partment	Bio	College	Sci			
Module Leader	Saad T. Mutlk		e-mail Saad.t.mutalk@uoanbar		r.edu.iq		
Module Leader's Acad. Title		Lecturer	Module Lea	ıder's Qu	alification	Ph.D	
Module Tutor			e-mail				
Peer Reviewer Name			e-mail				
Scientific Committee Approval Date		01/06/2023	Version Nu	mber	1.0		

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العلاقة مع المواد الدراسية الأخرى					
Prerequisite module	None	Semester			
Co-requisites module	None	Semester			

Module A	Aims, Learning Outcomes and Indicative Contents					
دية	أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية					
	to enable the learner to communicate effectively and appropriately in real life situation:					
Module Objectives	b. to use English effectively for study purpose across the curriculum;					
أهداف المادة الدراسية	c. to develop interest in and appreciation of Literature;					
اهداف المادة الدراسية	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.					
	to develop the students' abilities in grammar, oral skills, reading, and study skills					
Module Learning Outcomes	 Students will increase their awareness of correct usage of English grammar in writing and speaking. Improve their speaking ability in English both in terms of fluency and comprehensibility. 					
مخرجات التعلم للمادة الدراسية	 Receive feedback on their performance through oral presentations. Increase their reading speed and comprehension of academic articles. improve their reading fluency skills through extensive reading. Expand their vocabulary by keeping a vocabulary journal. 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

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

- 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.

reinforce academic lessons.

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

Strategies

Student Workload (SWL)							
له ۱۵ اسبوعا	الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا						
Structured SWL (h/sem)		Structured SWL (h/w)	_				
الحمل الدراسي المنتظم للطالب خلال الفصل	48	الحمل الدراسي المنتظم للطالب أسبوعيا	7				
Unstructured SWL (h/sem)	0.7	Unstructured SWL (h/w)					
الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	الحمل الدراسي غير المنتظم للطالب أسبوعيا	6				
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
	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
Formative assessment	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	0	0 %		
	Essays	1	10% (10)	13	LO #5, #8 and #10
Summative	Midterm Exam	2hr	20% (10)	7	LO #1 - #7
assessment	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 (<mark>لا يوجد</mark>)					
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&selLan	guage=en				

	Grading Scheme								
	مخطط الدرجات								
Group	Grade	التقدير	Marks %	Definition					
	A - Excellent	امتياز	90 - 100	Outstanding Performance					
Success Group	B - Very Good	جيد جدا	80 - 89	Above average with some errors					
(50 - 100)	C - Good	جيد	70 - 79	Sound work with notable errors					
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings					

	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
(0 – 49)	F – Fail	راسب	(0-44)	Considerable amount of work required

MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية						
Module Title		Analytical Chemistry		Modu	le Delivery	
Module Type		C			☑ Theory	
Module Code		CoS-112			⊠ Lecture ⊠ Lab	
ECTS Credits		7			□ Tutorial	
SWL (hr/sem)	175		□ Practical☑ Seminar			
Module Level		1	Semester of Delivery		1	
Administering Dep	partment	Bio	College	Sci		
Module Leader	Wahran M. Su	aad	e-mail			
Module Leader's	Acad. Title	lecturer	Module Lea	ader's Qualification Ph		Ph.D.
Module Tutor	Name (if availa	ible) e-mail				
Peer Reviewer Name		Name	e-mail	E-mail		_
Scientific Committee Approval Date		01/06/2023	Version Nu	mber	1.0	

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

	Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية			
Module Objectives أهداف المادة الدر اسية	 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 Learning Outcomes مخرجات التعلم للمادة الدراسية	 That the student know the general concepts of compounds in the analytical chemistry curriculum. The student should be familiar with the basics and rules for naming different compounds, structural compositions, and different physical properties. 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. 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) 94 Structured SWL (h/w) الحمل الدر اسي المنتظم للطالب أسبو عيا الحمل الدر اسي المنتظم للطالب خلال الفصل				
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	81	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا		
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل		200		

	Module Evaluation					
	تقييم المادة الدراسية					
Time/Number Weight (Marks) Week Due Learning					Relevant Learning Outcome	
	Quizzes	6	12% (5)	Same week	LO #1, #2 and #10, #11	
Formative assessment	Assignments	6	12% (5)	Each following week	LO #3, #4 and #6, #7	
	Projects / Lab.	1	8% (20)	Continuous	All	
	Report	4	8% (5)	13	LO #5, #8 and #10	

Summative	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
assessment	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			

Ī	Week 5	Lab 5: separation ions by Ion exchanges
Ī	Week 6	Lab 6: study The effect of pH in chromatography
Ī	Week 7	Lab 7: separation ions using chromatography

Learning and Teaching Resources				
مصادر التعلم والتدريس				
	Available in the Library?			
Required Texts	 General principles of chemical and weight analysis dr. Safaa Razouqi Al-mraab. The second part Separation Methods in Chemical Analysis, Albertine Habboush, University of Baghdad. 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 (Ph.D) (Author), 2022	No		
Websites	https://www.sciencedirect.com/journal/separation-and-purificethnology/vol/292/suppl/C https://www.amazon.com/Separation-Purification-Methods-E Perry/dp/082476319X			

Grading Scheme مخطط الدرجات					
Group	Grade	التقدير	Marks %	Definition	
	A - Excellent	امتياز	90 - 100	Outstanding Performance	
	B - Very Good	جيد جدا	80 - 89	Above average with some errors	
Success Group (50 - 100)	C - Good	जॅंन्	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

MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية						
Module Title			Mod	ule Delivery		
Module Type		C			☑ Theory	
Module Code		Bio-111			☑ Lecture☑ Lab	
ECTS Credits		8			□ Lab □ Tutorial	
SWL (hr/sem)	200				☐ Practical ☒ Seminar	
Module Level		1	Semester of Delivery		1	
Administering I	Department	Bio	College	Sci		
Module Leader Mohammed (Q. Abid	e-mail			
Module Leader's Acad. Title		lecturer	Module L	eader's	Qualification	Ph.D.
Module Tutor Name (if ava		ilable)	e-mail			
Peer Reviewer Name		Name	e-mail	E-mail		
Scientific Committee Approval Date		01/06/2023	Version N	umber	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 الدر اسية	 Develop an understanding of the diversity of animal life and an appreciation of the significance of various taxa. Demonstrate a basic understanding of the evolutionary history of the animal kingdom. Develop an understanding of the form and function of animal systems. Develop laboratory skills necessary for zoological study. 				
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	 Have developed an understanding of the diversity of animal life and an appreciation of the significance of various taxa. Have developed a basic understanding of the evolutionary history of the animal kingdom. Develop an understanding of the form and function of animal systems. 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) 94 Structured SWL (h/w) الحمل الدر اسي المنتظم للطالب أسبو عيا الحمل الدر اسي المنتظم للطالب خلال الفصل				
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 الدر اسية					
		Time/Numbe r	Weight (Marks)	Week Due	Relevant Learning Outcome	
	Quizzes	6	12% (5)	Same week	1, 2, 3, 4	
Formative assessment	Assignments	6	12% (5)	Each following week	1, 2, 3, 4	
	Projects / Lab.	1	8% (20)	12	1, 2, 3, 4	
	Report	4	8% (5)	3, 6, 8, 10	3, 4	
Summative assessment	Midterm Exam	1hr	10% (10)	7	1, 2, 3	
assessment	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			
	Available in the Library?		
Required Texts	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		
Recommended Texts		No	
Websites			

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

MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية							
Module Title	Ge	neral Mathemat	ics	Modu	ıle Delivery		
Module Type		Basic			☐ Theory		
Module Code		CoS-111			⊠ Lecture □ Lab ⊠ Tutorial		
ECTS Credits		5					
SWL (hr/sem)		125			□ Practical □ Seminar		
Module Level		1	Semester of	Delivery		1	
Administering Dep	partment	Biology	College	Science	2		
Module Leader	Rafaat S. Abdu	ıljabar	e-mail				
Module Leader's	Acad. Title	Lecturer	Module Lea	der's Qu	alification	Ph.D.	
Module Tutor	Name (if availa	able)	e-mail	E-mail			
Peer Reviewer Name Name		Name	e-mail	E-mail			
Scientific Committee Date	tee Approval	01/06/2023	Version Nu	rsion Number 1.0			

Relation with other Modules	
العلاقة مع المواد الدراسية الأخرى	

Prerequisite module	Non	Semester	
Co-requisites module	None	Semester	

	Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرش			
Module Objectives الهداف المادة الدراسية This module aims to provide students with the necessary topics mathematical (whether classical or probabilistic) and statistical of that can be applied in Biology. Students will have acquired fundamental skills in the evalual experiments, the interpretation of readings and numbers as we 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. Population models (predator-prey, competition), epidemic models and reaction enzyme kinetics will be discussed. Some probabilistic modelling of molecular evolution will also be introduced. Use and interpret different types of data in biology. Choose and perform the appropriate statistical technique for the analysis of data. Apply knowledge of sampling to test hypotheses about problems. Interpret the results of a simple statistical 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

assessment

Total assessment

Final Exam

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 and Biostatistics. At the same time, they are refining and expanding their critical thinking skills through topics covered in lectures, including population models for single and interacting species, population dynamics, 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) Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا الحمل الدراسي المنتظم للطالب أسبوعيا						
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				

تقييم المادة الدراسية							
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome		
	Quizzes	6	12% (5)				
Formative	Assignments	6	12% (5)				
assessment	Projects / Lab.	1	8% (20)				
	Report	4	8% (5)				
Summative	Midterm Exam	1	10% (10)				

Module Evaluation

Delivery Plan (Weekly Syllabus)

50% (50)

100% (100 Marks)

16

Αll

3hr

	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 i						
	TOAC	Library?					
	Mathematical Modeling in Systems Biology: An Introduction.						
Required Texts Brian P. Ingalls (2022). MIT Press.		No					
Recommended		No					
Texts		INO					
Websites	https://www.uoanbar.edu.iq/						

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

(50 - 100)	B - Very Good	80 - 89		Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	ا ۱۵() - ۱۵ متوسط		Fair but with major
	D - Satisfactory			shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
	Fail Group (اسب (قيد المعالجة) (45-49) (45-49) (0-49) (0-44)		(45-49)	More work required but credit
Fail Group				awarded
(0 – 49)			(0-44)	Considerable amount of work
I - I all		راسب	(0-44)	required

MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية							
Module Title	(Arabi	ربية (language	اللغة ال	Modu	le Delivery		
Module Type		Support			☑ Theory		
Module Code		UoA-112		⊠ Lecture □Lab			
ECTS Credits	2			☐ Tutorial ☐ Practical ☐ Seminar			
SWL (hr/sem)		50					
Module Level	Level 1 Semes		Semester of	Deliver	у	2	
Administering Dep	partment	Bio	College	Sci			
Module Leader	Ali M. Jurow		e-mail				
Module Leader's	Acad. Title	Prof.	Module Lea	eader's Qualification Ph.D		Ph.D	
Module Tutor			e-mail				
Peer Reviewer Name			e-mail				
Scientific Commit	tee Approval	01/06/2023	Version Nur	mber	1.0		

Date		

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

Module Aims, Learning Outcomes and Indicative Contents							
دية	أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية						
	أ - تنمية معارف الطلبة للغة العربية، وأهميتها لهم.						
Module Objectives	ب - أن يتعرف على شرح بعض سور القرآن الكريم، ويحفظها.						
أهداف المادة الدراسية	ت- ان يتعرف الطالب على تاريخ الأدب، وأهم مراحل تطوره .						
	لاطلاع على شعراء لم يسبق للطالب التعرف عليهم						
	ج- أن يضبط الطلبة كتابة الأملاء وعلامات الترقيم.						
Module Learning	1. القدرة على الحفظ والاستذكار						
Outcomes	 القدرة على الموازنة بين لغة ادب العصر المذكور والآداب الاخرى. 						
	 القدرة على المشاركة الجماعية للمحتويات الادبية للمادة 						
مخرجات التعلم للمادة	4. القدرة على تقديم المقترحات وحل المشكلات						
الدراسية	 القدرة على التفاعل مع المصادر والمراجع 						
	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						
Indicative Contents	الأدب- قصيدة قم للمعلم لأحمد شوقي						
المحتوبات الإرشادية	الإملاء- كتابة الضاد والظاء						
<u> </u>	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			
	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			
Strategies	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) 48 Structured SWL (h/w) 7 الحمل الدراسي المنتظم للطالب أسبوعيا الحمل الدراسي المنتظم للطالب خلال الفصل					
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6		
Total SWL (h/sem) 75 الحمل الدراسي الكلي للطالب خلال الفصل					

Module Evaluation							
تقييم المادة الدراسية							
	Time/Number Weight (Marks) Week Due Learning Outcome						
	Quizzes	6	12% (5)	5 and 10	LO #1, #2 and #10, #11		
Formative assessment	Assignments	6	12% (5)	2 and 12	LO #3, #4 and #6, #7		
	Projects / Lab.	1	8% (20)				
	Essays	4	8% (5)	13	LO #5, #8 and		

					#10
Summative	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
assessment	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- سورة 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 (<mark>لا يوجد</mark>)				
	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		
	A - Excellent	امتياز	90 - 100	Outstanding Performance		
	B - Very Good	جید جدا	80 - 89	Above average with some errors		
Success Group	C - Good	جيد	70 - 79	Sound work with notable errors		
(50 - 100)	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		

MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية						
Module Title		Biophysics Module Delivery				
Module Type		В				
Module Code		CoS-113		⊠ Theory		
ECTS Credits		6		─		
SWL (hr/sem)		150				
Module Level		1	Semester o	f Delivery	1	
Administering Dep	partment	Bio	College	Sci		
Module Leader	Farid M. Mushib		e-mail	Fareedm1969@gmail.com		
Module Leader's Acad. Title		Assist professor	Module Lea	der's Qualification	Ph.D.	
Module Tutor	Tutor Name (if available)					

Peer Reviewer Name	Name	e-mail	E-mail	
Scientific Committee Approval Date	01/10/2023	Version Nu	mber	1.0

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

Module Aims, Learning Outcomes and Indicative Contents				
ية	أهداف المادة الدر اسية ونتائج التعلم والمحتويات الإرشادية			
Module Objectives أهداف المادة الدراسية	 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 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	General and qualifying transferable skills (other skills related to			

المحتويات الإرشادية	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
	4. Developing the student's abilities to make optimal use of time (time management).

Learning and Teaching Strategies استر اتیجیات التعلم و التعلیم			
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) Structured SWL (h/w) الحمل الدر اسي المنتظم للطالب أسبوعيا الحمل الدر اسي المنتظم للطالب خلال الفصل				
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا		4	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150			

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

	Quizzes	6	12% (5)	Same week	LO #1, #2 and
					#10, #11
				Each	LO #3, #4 and
Formative	Assignments	6	12% (5)	following	
assessment				week	#6, #7
	Projects / Lab.	1	8% (20)	Continuous	All
	Poport	4	90/ /E\	12	LO #5, #8 and
	Report	4	8% (5)	13	#10
Summative	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
assessment	Final Exam	3hr	50% (50)	16	All
Total assessme	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. Hazem Falah Sakeek Associated Professor of Physics Al- Azhar University – Gaza (2001)	No			
Websites					

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information						
معلومات المادة الدراسية						
Module Title	General Botany		Modu	Module Delivery		
Module Type	<u>C</u>				⊠Theory	
Module Code	Bio-121				⊠Lecture ⊠Lab □Tutorial □Practical □Seminar	
ECTS Credits	<u>8</u>					
SWL (hr/sem)	<u>200</u>					
Module Level		1	Semester of	of Delivery 2		2
Administering Depa	artment	Bio	College	Sci		
Module Leader Enas Fahd Naji Hiba Foad Abdulfatah		e-mail		-fahad@uoanbar.ec fouad@uoanbar.ec	_	
Module Leader's Acad. Title		Lecturer	Module Lea	Module Leader's Qualification Ph.D.		Ph.D.
Module Tutor	Name (if available)		e-mail	E-mail		
Peer Reviewer Name			e-mail			
Scientific Committee Approval Date		01/06/2023	Version Nur	nber	1.0	

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Modul	Module Aims, Learning Outcomes and Indicative Contents					
	أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية					
Module Objectives أهداف المادة الدراسية	 Identify the most important plant groups and species in nature, their characteristics, and methods of reproduction and living Learn about the plant cell and its different parts and the function of each part. Understanding the cell life cycle and types of division Identify the different plant parts and their modifications Understanding the mechanisms of sexual and asexual reproduction in different plant cells 					
Module Learning Outcomes عزجات التعلم للمادة الدراسية	 Identify the most important plant groups and species in nature, their characteristics, and methods of reproduction and living Identify the plant cell with all its parts and distinguish it from the animal cell. Knowing the most important functions that take place at the cellular and tissue levels. Understanding the cell life cycle and types of division Identify the different plant parts and their modifications Understanding the mechanisms of sexual and asexual reproduction in different plant cells Identify the most important events that take place during plant cell growth Microscopic examination of many living and nonliving components of the plant cell Learn to prepare slides for various plant specimens 					
Indicative Contents المحتويات الإرشادية	Botany course covers four main themes: Taxonomy: Dividing plants into groups according to the degree of similarity between them in genetic components Cytology: Study of the internal structure of plant cells External morphology: Studying the external structure of plants and its various parts Physiology: Study of various functions at the level of organs and tissues					

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 botany. At the same time refining and expanding their critical thinking skills through topics covered in lectures include what are plant cells, their basic characteristics, structure and metabolisms processes. An interactive tutorial and by considering types of simple experiments In methods of preparing different solutions, expressing their concentrations, and methods of estimating some important compounds in the plant cell, and observing some important phenomena in the laboratory at the level of the plant cell.

Student Workload (SWL)					
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا					
Structured SWL (h/sem) Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا الحمل الدراسي المنتظم للطالب خلال الفصل					
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	122	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6		
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل		200			

Module Evaluation

تقييم المادة الدراسية

· / · · · ·						
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome	
	Quizzes	6	15% (5)	Same week	Same week 1, 2, 3, 4	
Formative	Quizzes	O	1370 (3)	1, 2, 3, 4		
assessment	Assignments	6	10% (5)	2 and 12	LO #3, #4 and #6, #7	
assessment	Projects / Lab.	1	5% (10)	Continuous	All	
	Report	6	10% (10)	13	LO #5, #8 and #10	
Summative	Midterm Exam	2hr	10% (10)	7	LO #1 - #7	
assessment	Final Exam	2hr	50% (50)	16	All	
Total assessment			100% (100 Marks)			

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Botany and botany branches
Week 2	Major Plant Categories and Associated Groups 1
Week 3	Major Plant Categories and Associated Groups 2
Week 4	Plant Cells-Definition, Diagram, Structure & Function 1
Week 5	Plant Cells-Definition, Diagram, Structure & Function 2
Week 6	Cell Walls of Plants
Week 7	Mid-term Exam
Week 8	Plant cell cycle
Week 9	Mitosis lecture
Week 10	Meiosis Lecture)
Week 11	Plant parts)
Week 12	Pollination and fertilization
Week 13	Photosynthesis
Week 14	Respiration
Week 15	Plant growth and Plant growth regulators
Week 16	Preparatory week before the final Exam

	المنهاج الاسبوعي للمختبر				
	Material Covered				
Week 1	Microscope				
Week 2	project				
Week 3	Plant cell and its components living components 1				
Week 4	Plant cell and its components living components 2				
Week 5	Plant cell and its components Non-living components 1				
Week 6	Plant cell and its components Non-living components 2				
Week 7	Midterm exam				
Week 8	Home work discussion				
Week 9	Pits				
Week 10	Stomatal system				
Week 11	Cell division				
12	Plant growth				
13	Plant growth regulators				
14	Project Discussion				

Learning and Teaching Resources مصادر التعلم والتدريس				
	Text	Available in the Library?		
Required Texts	Reece, J. B., Urry, L. A., & Cain, M. L. (2017). Campbell biology. Pearson.	No		
Recommended No No				
Websites	Websites http://www.mobot.org/mobot/tropicos/most/ http://www.csdl.tamu.edu/FLORA/fsb/fsbfern1.htm http://www.botany.hawaii.edu/faculty/carr/equiset.htm			

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