Academic Program Description

University Name: University Of Anbar Faculty/Institute: Education College for Women Scientific Department: ... Department of Biology Academic or Professional Program Name: Bachelor of Biology Final Certificate Name: Bachelor of Biology Academic System: ... Semester Description Preparation Date: 31–3–2024 File Completion Date: 31–3–2024

Signature: Head of Department Name: Dr. Nedhal Ibrahim Lateff

Signature:

Scientific Associate Name:

Date: Fivas Fadkel Ali 31/3/2094

The file is checked by:

Date: 31/3/2024

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date:

Signature



Approval of the Dean

Academic Program Description

1. Program Vision

Program vision is written here as stated in the university's catalogue and website:

The Education College for Women seeks to prepare graduates in the field of education to work in government institutions and benefit from specialization in the scientific and applied field.

2. Program Mission

Program Mission is written here as stated in the university's catalogue and website:

Working to prepare leading scientific and leadership competencies in the field of education and to develop the balance of knowledge in the field of scientific research in various disciplines in order to serve the local, regional and international community, as well as training the minds of female students and refining them scientifically and cognitively, and emphasizing social and cultural values and responding to the requirements of the local market through the following: -

1- Community service: by consolidating relations with state institutions that benefit from the scientific specializations of our department by providing applied research and holding scientific seminars and workshops inside and outside the department.

2- Scientific research: Scientific research is active in the department through the participation of faculty members and students of primary and postgraduate studies in conducting research in various specializations and publishing the research output to contribute to the development of society in the scientific fields and raise the global classification of our college in particular and our university in general.

3- The educational process: Providing a good educational and pedagogical environment for students, supporting and supporting them in their field of study, arming them with science and knowledge, raising their intellectual level and scientific abilities, and assuming responsibility.

3. Program Objectives

General statements describing what the program or institution intends to achieve.

1- Preparing graduates with high theoretical and practical skills in the field of life sciences for the purpose of keeping pace with scientific development in the

service of society

2- Providing graduates with applied and practical scientific skills and using modern methods in teaching

3- Preparing female graduates with a high level of competence in the life sciences specialty for the purpose of meeting the needs of society and contributing to preparing a distinguished generation

4. **Program Accreditation**

Does the program have program Accreditation? And from which agency?

Nothing

5. Other external influences

Is there sponsor for the program? Nothing

6. Program Struc	ture			
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	59	154	38.3%	
College Requirements	7	14		
Department Requirements	43	118		Optional one
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program [7. Program Description											
Year/Level	Course Code	Course Name	Cre	dit Hours								
			theoretical	practical								
2023-2024/first	EWb3103	Basics of zoology	۲	۲								
2023-2024/first	EWb3101	Cell biology 1	۲	۲								
2023-2024/first	EWb3105	Analytical chemistry	۲	۲								
2023-2024/first	Ewb 1102	Arabic Language	۲	•								

2023-2024/first	EWb3106	Earth science	۲	•
2023-2024/first	Ewb1101	Human rights and democracy	۲	•
2023-2024/first	Ewb 2101	Educational psychology	۲	•
2023-2024/first	EWb3104	Basics of botany	۲	۲
2023-2024/first	EWb3102	Cell biology 2	۲	۲
2023-2024/first	EWb3107	organic chemistry	۲	۲
2023-2024/first	EWb1104	English	۲	•
2023-2024/first	EWb2103	Computers	۲	۲
2023-2024/first	EWb	Biological security and safety)	•
2023-2024/first	EWb2102	Foundations of education	۲	•
2023-2024/second	EWb3201	Invertebrates 1	۲	۲
2023-2024/second	EWb3205	Histology	۲	۲
2023-2024/second	EWb3203	Comparative plant	۲	۲
		anatomy		
2023-2024/second	EWb3204	Algae science	۲	۲
2023-2024/second	EWb2201	Scientific research	۲	•
		method		
2023-2024/second	EWb	English	۲	٠
2023-2024/second	EWb	Crimes of the defunct Baath Party	۲	•
2023-2024/second	EWb2202	Developmental psychology	۲	•
2023-2024/second	EWb3202	Invertebrates 2	۲	۲
2023-2024/second	EWB3209	Embryology	۲	۲
2023-2024/second	EWB3207	Biochemistry	۲	۲
2023-2024/second	EWB32O6	Archicons	۲	۲
2023-2024/second	EWB3208	Life statistics	۲	۲
2023-2024/second	EWb2203	educational	۲	•
		administration		
2023-2024/ third	EWB3302	General insects	۲	۲
2023-2024/ third	EWB3301	Chordates and	۲	۲
		comparative		
		anatomy		
2023-2024/ third	EWB3303	Genetics 1	۲	۲
2023-2024/ third	EWB3305	Microbiology	۲	۲
2023-2024/ third	EWB3306	Plant morphology	۲	۲

2023-2024/ third	EWB3307	Microscopic preparations	1	۲
2023-2024/ third	EWB2301	Counseling and mental health	۲	•
2023-2024/ third	EWB3308	Applied insects	۲	۲
2023-2024/ third	EWB3309	Fungi	۲	۲
2023-2024/ third	EWB3310	Plant classification	۲	۲
2023-2024/ third	EWB3311	Biotechnology	۲	۲
2023-2024/ third	WEB3312	Animal physiology	۲	۲
2023-2024/ third	EWB3304	Genetics 2	۲	۲
2023-2024/ third		English	۲	•
2023-2024/ third	EWB2302	Teaching methods	2	0
2023-2024/4th	EWB3401	Parasites 1	۲	۲
2023-2024/4th	EWB3403	Applied bacteriology	۲	۲
2023-2024/4th	EWB3408	Ecology	۲	۲
2023-2024/4th	EWB3405	Plant physiology	۲	۲
2023-2024/4th	EWB3406	Molecular biology	۲	۲
2023-2024/4th	EWB3407	Cellular metabolism	۲	۲
2023-2024/4th	EWB2401	School	•	٤
		applications		
2023-2024/4th	EWB3402	Parasites 2	۲	۲
2023-2024/4th	EWB3408	Environmental	۲	۲
		pollution		
2023-2024/4th	EWB3409	Immunology	۲	۲
2023-2024/4th	EWB3410	Public Health	۲	•
2023-2024/4th	EWB2402	Measurement and evaluation	۲	•
2023-2024/4th	EWB3411	Optional	۲	•
2023-2024/4th		English	۲	•

8. Expected learning outcomes of the program	
Knowledge	
Learning outcomes 1	
To possess broad, detailed, and accurate information about the medical, health,	
agricultural, food industries, and the environmental and natural systems.	
To have extensive knowledge of biological, genetic, and life concepts and laws in	
general.	
To be able to analyze, distinguish and accurately diagnose in vital laboratory fields	
Skills	
The ability to understand life sciences and apply them practically.	

- Dealing with crises and problems and developing solutions to them	
 Building scientific foundations in the life sciences specialty 	
Ethics	
Developing students' abilities to share scientific and practical ideas and skills	

9. Teaching and Learning Strategies

Teaching and Learning Strategies and methods adopted in the implementation of the program in general.

1- Explaining the scientific material in detail.

2- Gaining the ability to benefit from the Internet in searching for some

vocabulary that appears within the scientific material.

3-Use some educational videos, illustrations, and digital files instead of paper books.

10. Evaluation methods

Implemented at all stages of the program in general.

- Daily quizzes
- Miscellaneous duties
- Semester exams
- Questions and discussions

11. Faculty													
Faculty Members													
Academic Rank	Special	ization	Requirem	ecial ents/Skills licable)		the teaching aff							
	General	Special			Staff	Lecturer							
professor	Biology				2								
Assistant Professor	Biology				11								

Teacher	Biology		10	
assistant teacher	Biology		17	
Researcher	Biology		2	

Professional Development

Mentoring new faculty members

Briefly describe the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Holding periodic meetings for new faculty members and holding workshops and development courses

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(setting regulations related to enrollment in the college or institute, whether central admission or others)

The admission system in the department is (central, parallel, evening) admission.

13. The most important sources of information about the program

State briefly the source of information about the program.

14. Program Development Plan

Using new concepts in the field of life sciences and using electronic devices and the Internet for the purpose of developing and delivering scientific material to the student.

			P	rogram	Skills	s Outl	ine								
					Required program Learning outcomes										
Year/Level	Course Code			Knov	vledge			Skills	5			Ethics			
			optional	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
	EWb3103	Basics of zoology	Basic	/				/				/			
	EWb3101	Cell biology 1	Basic	/				/				/			
	EWb3105	Analytical chemistry	Basic	/				/				/			
	Ewb 1102	Arabic Language	Basic	/				/				/			
	EWb3106	Earth science	Basic	/				/				/			
	Ewb1101	Human rights and democracy	Basic	/				/				/			
	Ewb 2101	Educational psychology	Basic	/				/				/			
	EWb3104	Basics of botany	Basic	/				/				/			
	EWb3102	Cell biology 2	Basic	/				/				/			

EW	b3107 Basic	organic chemistry	/		/	'		/		
EWI	o1104 Basic	English	/		/	1		/		
EWI	b2103 Basic	Calculators	/		/	/		/		
	Basic	Biosecurity and safety	/		/	'		/		
EWI	D2102 Basic	Foundations of education	/		/	/		/		
			/		/	'		/		
EWI	b3201 Basic	Invertebrates 1	/		/	'		/		
EWI	b3205 Basic	Histology	/		/	'		/		
EW	b3203 Basic	Comparative plant anatomy	/		/	/		/		
EWI	b3204 Basic	Algae science	/			/		/		
EW	b2201 Basic	Scientific research	/		,	/		/		
		method								

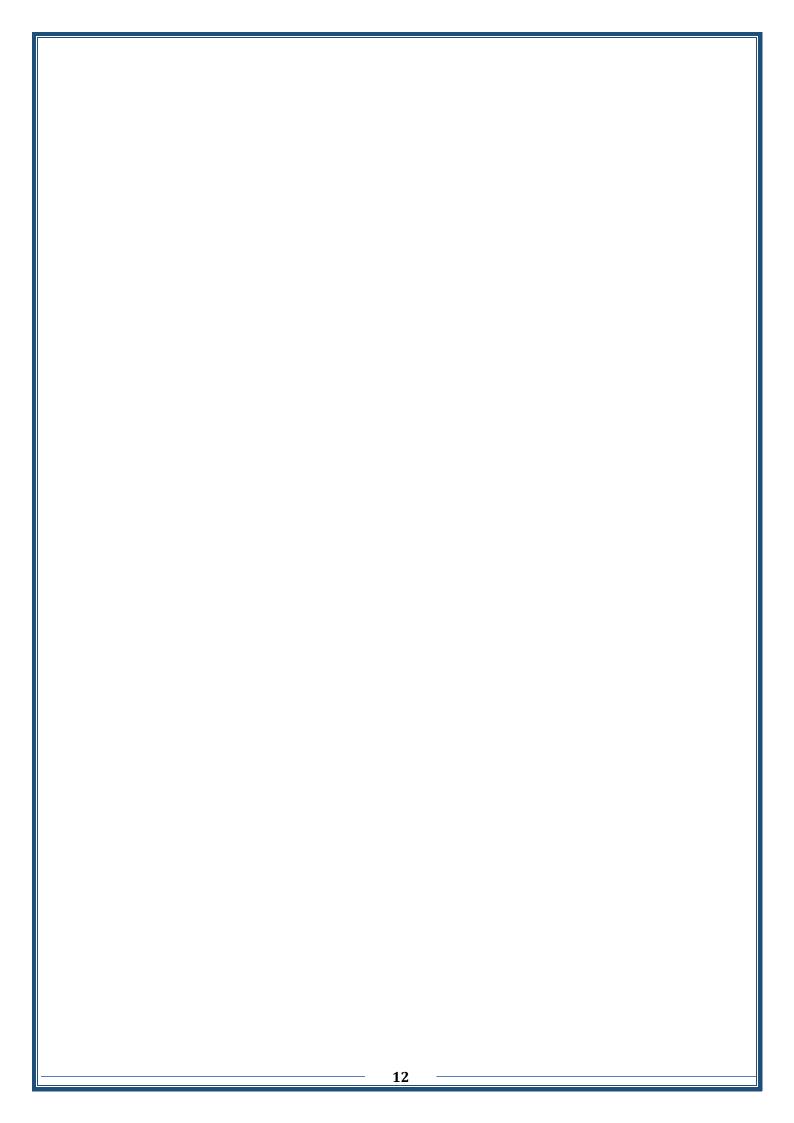
EWb	Basic	English	/		/		/		
EWb	Basic	Crimes of the defunct Baath Party	/		/		/		
EWb2202	Basic	Developmental psychology	/		/		/		
EWb3202	Basic	Invertebrates 2	/		/		/		
EWB3209	Basic	Embryology	/		/		/		
EWB3207	Basic	Biochemistry	/		/		/		
EWB32O6	Basic	Archicons	/		/		/		
EWB3208	Basic	Life statistics	/		/		/		
EWb2203	Basic	educational administration	/		/		/		
EWB3302	Basic	General insects	/		/		/		
EWB3301	Basic	Chordates and comparative anatomy	/		/		/		

EW	B3303 Basic	Genetics 1	/		/		/		
FW	B3305 Basic	Microbiology	/		/		1		
			,		'		,		
EW	B3306 Basic	Plant morphology	/		/		/		
EW	B3307 Basic	Microscopic preparations	/		/		/		
EW	B2301 Basic	Counseling and mental health	/		/		/		
EW	B3308 Basic	Applied insects	/		/		/		
EW	B3309 Basic	Fungi	/		/		/		
EW	B3310 Basic	Plant classification	/		/		/		
EW	B3311 Basic	Biotechnology	/		/		/		
WE	B3312 Basic	Animal physiology	/		/		/		
EW	B3304 Basic	Genetics 2	/		/		/		
	Basic	English	/		/		/		
EW	B2302 Basic	Teaching methods	/		/		/		

EWB3401	Basic	Parasites 1	/		/		/		
EWB3403	Basic	Applied bacteriology	/		/		/		
EWB3408	Basic	Ecology	/		/		/		
EWB3405	Basic	Plant physiology	/		/		/		
EWB3406	Basic	Molecular biology	/		/		/		
EWB3407	Basic	Cellular metabolism	/		/		/		
EWB2401	Basic	School applications	/		/		/		
	Basic	Graduation research	/		/		/		
EWB3402	Basic	Parasites 2	/		/		/		
EWB3408	Basic	Environmental pollution	/		/		/		
EWB3409	Basic	Immunology	/		/		/		
EWB3410	Basic	Public Health	/		/		/		

EWB2402	Basic	Measurement and evaluation	/		/		/		
EWB3411	Optional	Pathogenic bacteria	/		/		/		
	Basic	English	/		/		/		
	Basic	School applications	/		/		/		

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.



		Cou	iise Description					
1. Co	urse Na	me:						
			Zoology					
2. Co	urse Co	de:						
			EWb3103					
3. Sei	mester	/ Year:						
			Semester					
4. De	scriptio	n Preparation Date:	:					
			31-3-2024					
5. Av	ailable A	Attendance Forms:						
			weekly					
6. Nu	mber of	Credit Hours (Total)) / Number of Units	s (Total)				
		al hours + 2 practical	hours = (4 hours)	per week				
Nu	mber of	units (3)						
7 0-		Iminiatratar'a name	(montion all if m	oro than and a	ome)			
		iministrator's name			ame)			
		.sh-m-bio.2009@uo		Juory				
		in@uoanbar.edu.iq	unour.edu.iq					
ute		an e usunisunisuuniq						
8. Co	urse Ob	jectives						
Course Ob	ojectives	Developing fem	nale students' knowledg	e about everything re	elated to Zoolog			
	-		and its various branchesIntroducing students to the systems found in the animal's body, what they					
		consist of, and th			My, what they			
			tudying the types of anim		mponents			
			animal tissues, their loc idents to the importance		to classify ther			
9. Tea	achina a	ind Learning Strategi			<u> </u>			
Strategy		Explanation and clar		re method 3- Stu	udent group			
S		Practical lessons in t			adont group			
		Brainstorming						
		C						
10. Cour	se Struc	cture						
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation			
		Outcomes	name	method	method			
		Zoology - branches	Zoology	Explanation ar	Theoretical			
1	4	of zoology		presentation of	Practical te			
	1			slide model an	Reports			

				lecture	
				lecture	
	4	Classificatio	Zoology	Explanation an	Theoretical te
2				presentation of	Practical tes
2				slide model an	Reports
				lecture	
3	4	Structure of animal c	Zoology	Explanation an	Theoretical te
				presentation of	Practical tes
				slide model an	Reports
				lecture	
4	4	animal tissues	Zoology	Explanation an	Theoretical te
				presentation of	Practical test
				slide model an	Reports
				lecture	
5	4	Embryonic developm	Zoology	Explanation an	Theoretical te
		in animalia		presentation of	Practical test
				slide model an	Reports
				lecture	
6	4	Animal classificatio	Zoology	Explanation an	Theoretical te
				presentation of	Practical test
				slide model an	Reports
				lecture	
7	4	Integumentary system	Zoology	Explanation an	Theoretical te
				presentation of	Practical test
				slide model an	Reports
			7 1	lecture	701 . 1 .
8	4	Digestive system	Zoology	Explanation an	Theoretical te
				presentation of t	Practical test
				slide model an	Reports
9	4	first month Exam	Zoology	lecture	Theoretical te
9	4	first month Exam	Zoology		Practical test
					Reports
10	4	Respiratory system	Zoology	Explanation an	Theoretical te
10	-	Respiratory system	Zoology	presentation of	Practical test
				slide model an	Reports
				lecture	Reports
11	4	Genital (reproductiv	Zoology	Explanation ar	Theoretical te
••	-	system	2001055	presentation of	Practical test
		- 5		slide model an	Reports
				lecture	reports
12	4	Circulatory system	Zoology	Explanat	Theoretical te
			61	and	Practical test
				presentat	Reports
				of the sli	1
				model a	
				lecture	
13	4	Excretory Systems	Zoology	Explanation ar	Theoretical te
				presentation of	Practical test
				slide model an	Reports
				lecture	1

14	4	Nervous system	Zoology	Explanation ar	Theoretical test
				presentation of	Practical test
				slide model an	Reports
				lecture	
15	4	second month Exar	Zoology		Theoretical test
					Practical test
					Reports
11. Co	urse Eva	aluation		II	
Distributin	ng the sc	ore out if 100 according	ng to the tasks assigned	ed to the student	such as daily

preparation, daily oral, monthly, or written exams, reports,...etc.

Monthly exams 25 marks

Daily preparation, daily exams and reports 5 marks

Practical exam: 10 marks

Strive 40 degrees

Final exam (45 marks for theoretical exam + 15 marks for practical exam) = 60 marks

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Zoology Morad Baba Morad
Main references (source)	Zoology Morad Baba Morad Zoology Mohameed Esmail Mohameed
Recommended books and references (scientific journals, reports)	Obscure Practical Zoology, Animal physiology
Electronic references, websites.	Use electronic references and websites

1. Course Name:

Analytical chemistry

2. Course Code:

EWb3105

3. Semester / Year:

First course ۲۰۲٤/۲۰۲۳

4. Description Preparation Date:

2024/3/29

5. Available Attendance Forms:

weekly

6. Number of Credit Hours (Total) / Number of Units (Total)

3/4

7. Course administrator's name (mention all, if more than one name) Name: Atheer obaid talak Email: atheer_obaid@uoanbar.edu.ig

8. Course Objectives

Course Objectives Knowing the types of analys • and the methods used for ea type and calculating the proportions of the analyzed materials Knowledge of chemical equilibrium and its relationsl to chemical analysis Knowing the types of precipitates and precipitates chemical analysis 9. Teaching and Learning Strategies The lecture is explained and clarified by presenting it to Strategy the students on the screen and re-clarifying it practical after which the student is tested through daily exams.

Week	Hours	Required	Unit or subject	Learning	Evaluation
		Learning	name	method	method
		Outcomes			
First	4	Definition of analyt chemistry, its types and the tools used i	Analytical chemistry	A theoretical and practical lecture	Daily exams and daily assignments
		the analysis proces	=	=	=
Second	٤	Types of precipitate and precipitants, th quantity of obtainir them, and preparin these precipitants	=	=	=
Third	٤	Molarity, standard, normality, and methods for prepar liquid and solid compounds from it	=	=	=
Fourth	٤	How to calculate percentages in sediments	=		
Fifth	٤	Characteristics of sediments and precipitates	=	=	=
		Chemical equilibriu		_	_
Sixth	٤	Acids and bases	=	=	=
Seventh	٤	First month exam	=	Practical and	=
Eighth	۲	Ionization of strong acids and strong ba	=	theoretical exam	
Ninth	٤	Ionization of weak bases and weak aci		=	=
Tenth	٤	Ionization of strong salts and weak salts	=		
Eleventh	٤	Ionization of water	=	=	=
Twelveth	٤	Structured solution	=	=	=
Thirteenth	٤	Ionization of a buffe solution of a weak	=	=	=
		base	=	=	=

	-		-		-	
Fourteenth	٤	Second month exan				
				=	=	=
Fifteenth					Draatio	
	۲				Practica and theoretica	_
					exam	
					CAUTT	
11. Course	e Evalua	ation	I			
practical exam	ns: 10 m	ed out of 100 acc arks, the daily exar arks, divided into 1	ns: 5 ma	arks, and th	e daily assignm	ents: 5 marks.
12. Learni	ng and	Teaching Resour	ces			
Required textbo	ooks (cu	rricular books, if any	y)			
Main reference	es (source	e)		General analytical chemistry bo		
Recommended	l books a	and references (scie	entific			
journals, report	s)					
Electronic refer	rences, w	vebsites.				

1. Course Name:

organic chemistry

2. Course Code:

EWb3107

3. Semester / Year:

Second course ۲۰۲٤/۲۰۲۳

4. Description Preparation Date:

2024/3/29

5. Available Attendance Forms:

weekly

Strategy

6. Number of Credit Hours (Total) / Number of Units (Total)

3/4

7. Course administrator's name (mention all, if more than one name) Name: Atheer obaid talak Email: atheer_obaid@uoanbar.edu.ig

8. Course Objectives

 Course Objectives
 Knowing the types of organ compounds resulting from natural sources
 Knowing the organic nomenclature of hydrocarbo compounds and their types
 Know the difference betwee

alkanes, alkenes, and alkyn

9. Teaching and Learning Strategies

The lecture is explained and clarified by presenting it to the students on the screen and re-clarifying it practicall after which the student is tested through daily exams

10. Course Structure

Week	Hours	Required	Unit or subject	Learning	Evaluation
		Learning	name	method	method

		Outcomes			
First	4	Definition of organ chemistry	organic chemistry	A theoretical and practical	Daily exams and daily
Second	٤	Old nomenclature for hydrocarbon chains	=	lecture =	assignments =
Third	٤	Alkanes	=	=	=
Fourth	٤	Naming alka	=	=	=
Fifth	٤	according to mod nomenclature		_	=
Sixth	٤	Hydrogenation halogenation reacti of alkanes	=	=	
Seventh	٤	Physical and chemical properties of alkanes	=	=	=
Eighth	۲	Sources and methods of			
Ninth	٤	preparing alkanes	=	=	=
		First month exam	=	Practical and	=
Tenth	٤	Ring nomenclature	=	theoretical exam	
Eleventh	٤	Naming alkenes		=	=
Twelveth	٤	Mechanics of alcohol withdrawal	=	=	=
Thirteenth	٤	Reduction reactions of	=	=	=
Fourteenth	٤	alkenes	=	=	=
Fifteenth	۲	Alkenes preparation reactions	=	=	=
		Naming alkynes Second month	=	Practica	=
		exam	=	and theoretical exam	

11. Course Evaluation

The grade is distributed out of 100 according to the theoretical exams: 20 marks, the practical exams: 10 marks, the daily exams: 5 marks, and the daily assignments: 5 marks.

The final exam is 60 marks, divided into 15 prac	tical marks and 40 theoretical marks.
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (source)	General basics of organic chemistry book
Recommended books and references (scientific	
journals, reports…)	
Electronic references, websites.	

1. Course Name		
Cell2		
2. Course Code		
EWb3102		
3. : Year / Semester		
quarterly		
4. : Date this description was prepared		
2024-30-3		
5. : Available attendance forms		
weekly		
6. (total) number of units \(total) Number of study hours		
theoretical hours + 2 practical hours = (4 hours) per	week 2	
(Number of units (3		
7. (if more than one name is mentioned) Name of the course	administrato	r
Email Kawther <u>naser@uoanbar.edu.iq</u> :		
8. Course objectives	1	
 And develop emergence on Students identification The cell and its importance Cell components, whether To study In addition animal, plant, or microscopic cells cells for every Featured adjectives on And get to know the Some models to And touch Classification with in detail mission Studying With importance Students identification cells as they are the basis for the formation of the body of living organisms and the tissues and organs 	Objectives subject	of the study

Stude -4 Brainstor	nt groups Practical less ming -5, trip	d clarification -3 ons in the laboratory a s		The strat	egy
10. Course st Evaluation method	ructure Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Theoretical tests And practical tests reports And	Explanation and presentation slide of the and model lecture	Cell2	Some of the most important polysaccharides	4	1
Theoretical tests And practical tests And reports	Explanation and presentation slide of the and model lecture	Cell2	Cell division	4	2
Theoretical tests And practical tests		Cell2	First month exam	4	3
reports And Theoretical tests And practical tests reports And	Explanation and presentation slide of the and model lecture	Cell2	Ribosomes	4	4
Theoretical	Explanation and display	Cell2	Stages of meiosis	4	5

	1			
tests	of the model			
And	and Slides			
practical	lecture			
tests				
reports And Theoretical		Cell2		
tests		Cellz	Second month	
And practical tests			exam	4 6
				7
				8
				9
				10
				11
				12
				13
				14
				15
11. Course e	valuation			
etc , daily pre Monthly exa Daily prepar Practical ex Strive 40 de	paration, daily oms 25 marks ration, daily o am: 10 mark ogrees	, oral, monthly s exams and re s	nt, such as 100 Distribution of the written exams, reports ports 5 marks exam + 15 marks for practica	
12. Learning	and teaching i	resources		
Abdul H	ussein Faisal - (Cell science	Methodology, if) Required pres	scribed books
	iel Aziz - Cell S	Science	(any	
Gabı				
	cell is practical	book		
My Abdul Hu	cell is practical ussein Faisal - (iel Aziz - Cell S	Cell science	(sources) Main references	

My cell is practical book The cell: microstructure and functions / Abdul-Hussein Al-Faisal, 2000	
,Histology, ZoologyCell Biology / Abbas Hussein Mugheer Al- Rubaie , 2013	and books Recommended supporting (scientific journals, reports) references
electronic references and Use of websites	Electronic references, websites

1. Course Name: Basic of plant science

2. Course Code: EWb3104

- 3. Semester / Year: Semester
- 4. Description Preparation Date: 28/3/2024
- 5. Available Attendance Forms: Presence
- 6. Number of Credit Hours (Total) / Number of Units (Total): 30

7. Course administrator's name (mention all, if more than one name)

Name: Prof. Dr. Ali Hussein Ibraheem Al-Bayati	Email: ag.ali Hussein@uoanbar.edu.iq
Lecture Dr. Asmaa Abdulameer Bedn	asmaa.abdulameer@uoanbar.edu.iq

8. Course Objectives

Course Objectives	This course aims to enable the biologist sciences student to master the			
	general basics of botany, and includes a historical introduction. The			
	branches of science, its scope, and its importance. It also mainly deals with			
	the study of the apparent appearance and internal structure of the plant, the			
	most important biological processes that occur in the plant, and the plant's			
	relationship with humans and the environment.			

9. Teaching and Learning Strategies Strategy Through theoretical lectures and the laboratory aspect of training in the field of botany and determining the characteristics of its parts morphologically and anatomically using clarification methods and daily examinations, as well as discussing quarterly reports.

10. Course Structure

10. Course Structure						
Week	Hour s	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method	
First	5	Introduction, and getting acquainted with the basic terms in the field of botany.	Basic of plant Science	Giving the lecture	Weekly exam	
Second	5	Learn about the history of the development of botany and the contribution of Arab	Basic of plant Science	Giving the lecture	Weekly exam	

Third	5	and Muslim scientists in the progress of science, its fields and branches and its importance. Plant tissue Meristem tic plant tissue. Permanent plant tissues.	Basic of plant Science	Giving the lecture	Weekly exam
Fourth	5	Basic plant tissues. Plant connective tissue. Vascular plant tissue. Secretory plant tissue. Learn about the composition of the plant cell and interpretation of basic biological processes	Basic of plant Science	Giving the lecture	Weekly exam
Fifth	5	in plants and linking basic concepts in botany and plant chemistry. Root phenotypic structure. Types of roots - and the anatomical structure of the roots - natural secondary growth and types of	Basic of plant Science	Giving the lecture	Weekly exam
Sixth Seventh	5 5	modifications in the apparent and anatomical structure of the roots to adapt to the environment. Semester exam Phenotypic structure of the leg. Types of stems - and the anatomical structure of the stem - natural secondary growth and types of modifications in the apparent and anatomical structure	Basic of plant Science Basic of plant Science	- Giving the lecture	- Weekly exam
Eight		of the stems to adapt to the environment.			

	5	Phenotypic structure of leaves. Types of leaves according to function - and the anatomical structure of the leaf -and types of modifications in the apparent and anatomical structure of leaves to adapt to	Basic of plant Science	Giving the lecture	Weekly exam
Ninth	5	the environment. Flower structure - types of inflorescences - and different types of	Basic of plant Science	Giving the lecture	Weekly exam
Tenth Eleventh Twelfth Thirteenth Fourteenth Fifteenth	5 5 5 5	fruits. Root anatomy Semester exam Stem anatomy Anatomy of leaves The basic biological processes in plants (photosynthesis and respiration) and their relationship to the environment. The relationship between plants, humans, medicinal	Basic of plant Science Basic of plant Science	Giving the lecture Giving the lecture Giving the lecture Giving the lecture	Weekly exam Weekly exam Weekly exam Weekly exam

11.Course Evaluation

30% for each semester exam - 20% for weekly exams and 20% for the semesterly report.

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Basic of plant science
Main references (source)	Basics of Botany - Ruqaya Hussein Jassim -
	2013 - Dar That Al Salasil for Printing and
	Publishing.
Recommended books and references (scientific	Principles of Plant Science: Environmental
journals, reports)	factors and technology in growing plants.
	by Dennis R. Decoteau (Author)2005.
Electronic references, websites.	https://www.agro-lib.site/2019/01/blog-
	post_66.html
	https://academic.oup.com/journals/

pages/plant-science-
hub?campaignid=21060394715
&adgroupid=160285785780&adid
=692152224375&gad_source=1&gclid
=Cj0KCQjwzZmwBhD8ARIsAH4v1gWSCnLo

	_					_
1	Course	Name C	omnuter	hasics and	office	applications
Τ.	Courser	vanie. G	omputer	Dasies and	Unice a	applications

2. Course Code: EWB2103

3. Semester / Year: Second semester 2023-2024

4. Description Preparation Date:29/3/2024

5. Available Attendance Forms: Attendance in classrooms and laboratories

- 6. Number of Credit Hours (Total) / Number of Units (Total) 60hoers 45 forty-five hours,
- 7. Course administrator's name (mention all, if more than one name) Name: Nazhon Ismail Khaleel

Email: edw.nazhon.khaleel @uoanbar.edu.iq

8. Course Objectives

Course Objectives	1 – Teaching the basics of computers and the Office program
Course Objectives	
	2- Developing students' ability to understand computer bas
	and techniques used in computer programs and connecting
	the Internet
	3-Learn to administer operating systems for various progra
	4-Learning about electronic communication programs and
	ethics of the electronic world.

- 9. Teaching and Learning Strategies
- Strategy1- Blackboard2- Data Show3- Computer4- Scientific research5- Theoretical lectures
 - 6- Scientific Laboratories
 - 7- Discussion and dialogue

10. Course Structure

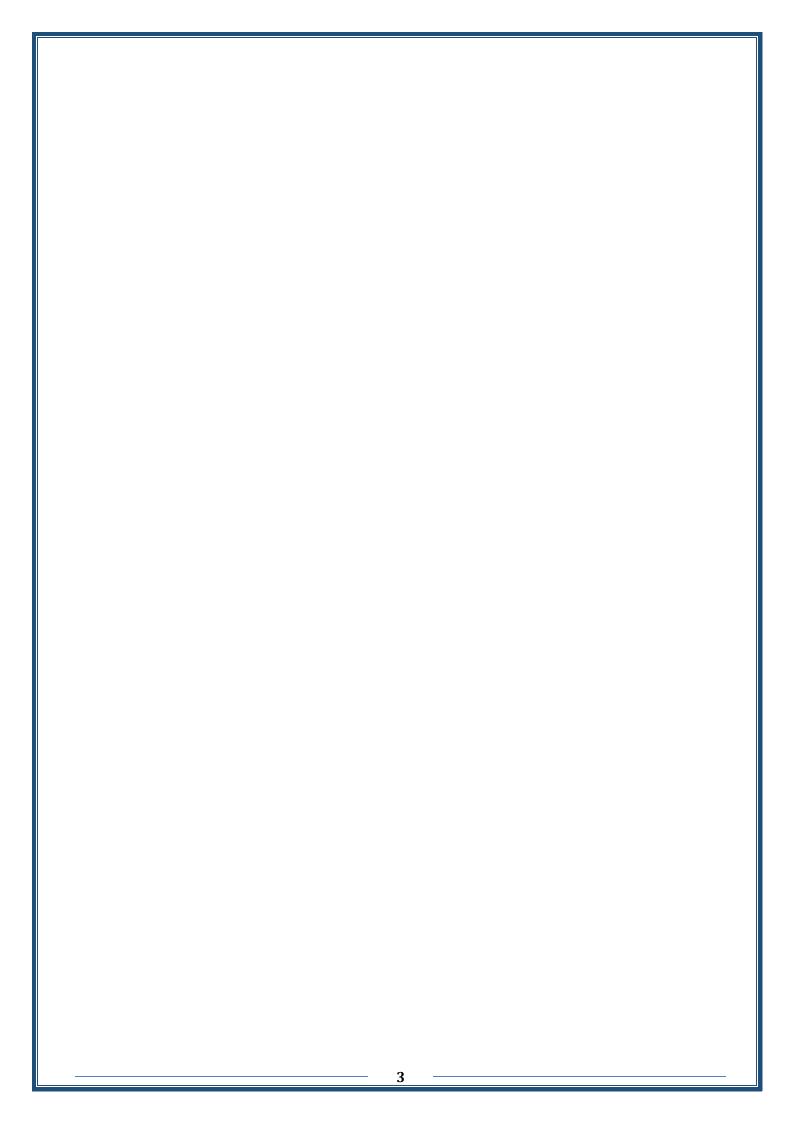
		Required	Unit or subject	Learning	Evaluation method
		Learning	name	method	
		Outcomes			
1	3	As in paragraph 8	Computer basics	Blackboard	Question and discussion+
	l!			data show	Daily and monthly exams
2	3	As in paragraph 8	Computer basics	Blackboard	Questions and discussion+
	<u> </u>			data show	Daily and monthly exams
3	3	As in paragraph 8	Computer's	Blackboard	Questions and discussion+
	<u> </u>	L	components	data show	Daily and monthly exams
4	3	As in paragraph 8	Computer's	Blackboard	Questions and discussion+
	<u> </u>	L	components	data show	Daily and monthly exams
5	3	As in paragraph 8	Computer security&		Questions and discussion+
	<u> </u>	ļ	software licenses	data show	Daily and monthly exams
6	3	As in paragraph 8	Computer security&	Blackboard	Questions and discussion+
	<u> </u>	ļ	software licenses	data show	Daily and monthly exams
7		As in paragraph 8	First month exam	Blackboard	Questions and discussion+
	<u> </u>	L		data show	Daily and monthly exams
8	3	As in paragraph 8	Internet ethics	Blackboard	Questions and discussion+
	<u> </u>	Ļ	I	data show	Daily and monthly exams
9	3	As in paragraph 8	Internet ethics	Blackboard	Questions and discussion+
	<u> </u>	<u> </u>	j	data show	Daily and monthly exams
10	3	As in paragraph 8	Operating Systems	Blackboard	Questions and discussion+
	<u> </u>	l		data show	Daily and monthly exams
11	3	As in paragraph 8	Operating Systems	Blackboard	Questions and discussion+
_	<u> </u>			data show	Daily and monthly exams
12	Γ '	As in paragraph 8	second month exam		Questions and discussion+
	<u> </u>			data show	Daily and monthly exams
13	3	As in paragraph 8	Operating Systems	Blackboard	Questions and discussion+
	<u> </u>			data show	Daily and monthly exams
14	3	As in paragraph 8	Operating Systems	Blackboard	Questions and discussion+
	اا			data show	Daily and monthly exams
15	· ۱		Third month exam	Blackboard	Questions and discussion+
	l!			data show	Daily and monthly exams
11. (Course	Evaluation			
			on a second in a to the ta	1 - traimod	· ····································
		0	8	0	to the student, such as daily
preparation, daily, oral, monthly, written exams, reports, practical exam etc. Annual pursuit 40% Final 60%					
	•				
12. L	_earning	g and Teaching Re	esources		
Required textbooks (curricular books, if any Computer basics and office applications book (

	computer busies and onlee applications book (i
	One)
Main references (source)	"Computer Basics and its Office Applicatio
	Part One," Dr. Ziad Muhammad Abboud; I
	Ghassan Hamid Abdel Majeed;
	Dr Amir Hussein Murad; M. Bilal Kan
	Ahmed, Dar Al-Kutub and Documer
	Baghdad, 2014.

Recommended books and references	
(scientific journals, reports)	
Electronic references, websites.	websites.

Course Description						
1. Course Name:Human freedoms and rights						
2. (2. Course Code: EWB3209					
3. 9	Semest	er / Year: Semester				
4.]	Descri	otion Preparation Date:	13/4/2024			
5. 4	Availał	le Attendance Forms:				
6	Numbe	r of Credit Hours (Total)	/ Number of Uni	ts (Total) 60h	Ders	
0. 1		or creat fiburs (10tal)				
			(montion all if			
		administrator's name	(mention all, If	more than on	e name)	
Name: sumaya foaad majeed Email: sumaya.majeed@uoanbar.edu.iq						
Eman. Sumaya.majeeu@uoanbai.euu.iq						
8. (Course	Objectives				
Course Objectives • Coverage of human rights material.						
			_	 Identify the classification of freedoms and 		
			rights.	-		
The emergence and development of freed					oment of freedom	
9.	Teachi	ig and Learning Strategie	25			
Strategy		<u> </u>				
10. Co	ourse S	tructure				
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation	
		Outcomes	name	method	method	
1	2	Introduchng rights				
T]			
2	2	The Islamic concept of hun rights				
	2 2	The Islamic concept of hui rights Basic freedoms				

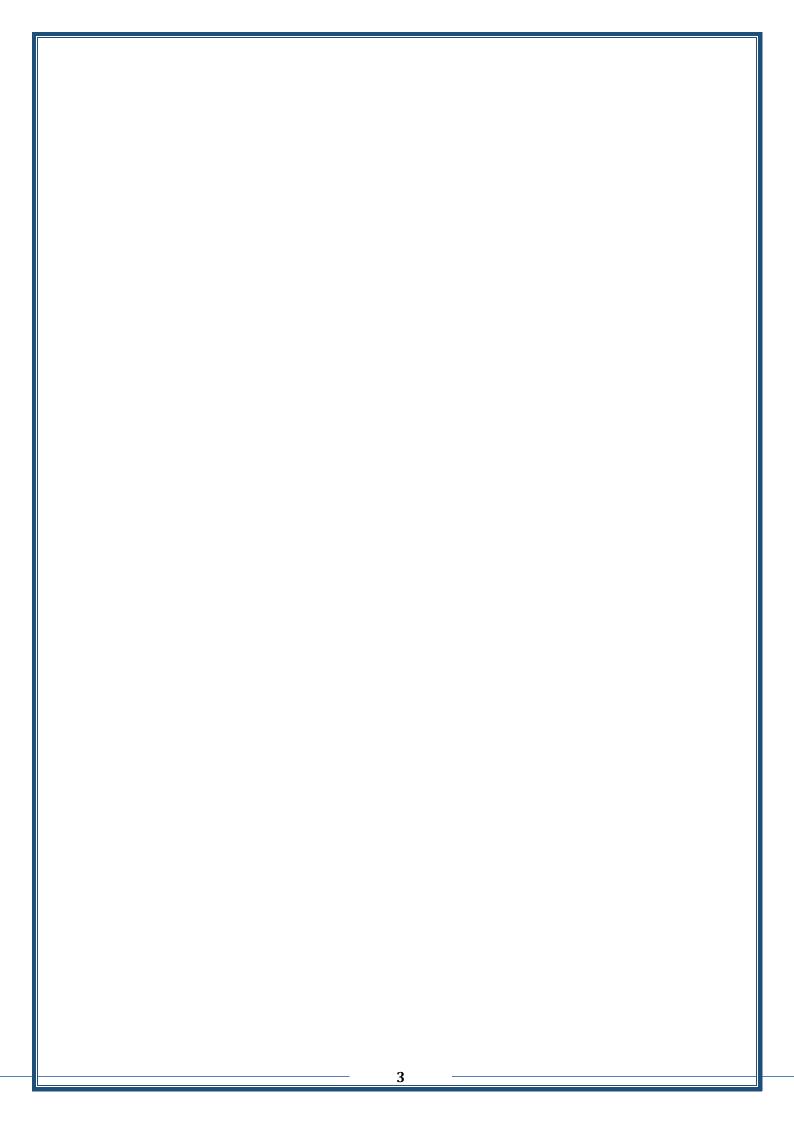
5	2	Classification of pu freedoms			
6	2	Human rights classification			
7	2	First month exam			
8	2	The emergence a development of rights a freedoms			
9	2	Human rights and freedom heavenly religions			
10	2	Principles of human rights Islamic law			
11	2	Rights and freedoms contemporary doctrines			
12	2	International systems protecting human rights freedoms			
13	2	International legitimacy in field of human rights			
14	2	Human rights and freedom Morocco			
15	2	Second month exam			
11. Course Evaluation					
Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,etc.					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)					
Main references (source)			Books on rights and freedoms		
Recommended books and references			Scientific journals		
(scientific journals, reports)					
Electron	ic referen	ces, websites.	Internet		



1. Course Name: geology	
2. Course Code: EWb3106	
3. Semester / Year: Semester	
4. Description Preparation Date:29/3/2024	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) / Number of Units	(Total)
7. Course administrator's name (mention all, if mo	ore than one name)
Name: Asmaa Wajeeh jumaa	
Email: edw.ah2010n@uoanbar.edu.iq	
8. Course Objectives	
Course Objectives	•
	•
	•
9. Teaching and Learning Strategies	
Strategy	
10. Course Structure	

1

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction and Definition of geology			
2	2	Examples			
3	2	Ligneous rocks			
4	2	Characteristic of Igneous rocks			
5	2	Types of Igneous rocks			
6	2	Sedimentary rocks			
7	2	Types of Sedimentary rocks			
8	2	Example			
9	2	First month exam			
10	2	Metals			
11	2	Types and uses metals			
12	2	Examples of metals			
13	2	Metamorphic rocks			
14	2	Types Metamorphic rocks			
15	2	Second month exam			
11. C	ourse Eva	aluation			
	0	ore out if 100 according to the tasks or written exams, reports,etc.	assigned to the stud	lent such as dai	ly preparation,
12. L	earning ar	nd Teaching Resources			
Required	textbooks	(curricular books, if any)		Geology	
Main refe	erences (sou	urce)			
Recomme	ended book	s and references (scientific journals, re	ports)		
Electronic	references	s, websites.			



1. Course Name		
Cell 1		
2. Course Code		
EWb3101		
3.: Year / Semester		
quarterly		
4. : Date this description was prepared		
2024-30-3		
5. : Available attendance forms		
weekly		
6. (total) number of units \(total) Number of study hours		
theoretical hours + 2 practical hours = (4 hours) per	week 2	
(Number of units (3		
7. (if more than one name is mentioned) Name of the course	administrator	
M.M. Kawthar Muhammad Nasser & Latif A.M.D. Nida		
: Email Kawther naser@uoanbar.edu.iq:		
Ellian Rawther <u>maser @ doanbar.edu.iq.</u>		
8. Course objectives		
	Objectives of the stu	dy
• And develop emergence on Students identification	subject	
The cell and its importance		
• Cell components, whether To study In addition		
animal, plant, or microscopic cellscells for every Featured adjectives on And get to know		
• cells for every Featured adjectives on And get to know the Some models to And touch Classification with		
in detail mission		
• Studying With importance Students identification		
cells as they are the basis for the formation of the		
body of living organisms and the tissues and organs		
they consist of, and thus the formation of the body's		
systems and knowing the functions of each cell and the		

Stude: -4	nt groups Practical less ming -5, trips	ons in the laboratory a	, Lecture method	The strat	egy
Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Theoretical tests And practical tests reports And	Explanation and presentation slide of the and model lecture	Cell 1	History of the development of cell science	4	1
Theoretical tests And practical tests And reports	Explanation and presentation slide of the and model lecture	1 Cell	Cytoplasm	4	2
Theoretical tests And practical tests reports And	Explanation and presentation slide of the and model lecture	1 Cell	Cellular communication	4	3
Theoretical tests And practical	Explanation and presentation slide of the	1 Cell	Types of cellular communication	4	4

tests	and model				
	lecture				
reports And	lecture				
Theoretical		1 Cell			
tests					
And			First month exam	4	5
practical			r ii st month exam	4	5
tests					
reports And					
Theoretical	Evaluation	1 Cell			
tests	Explanation				
A J	and display of the model		Lucacamaa	4	C
And	and Slides		Lysosomes	4	6
practical tests	lecture				
	lecture				
Theoretical	Explanation	1 Cell			
tests	and				
And	presentation				-
practical	slide of the		Cell organelles	4	7
tests	and model				
ronarts And	lecture				
reports And Theoretical		1 Cell			
tests	Explanation	I Cell			
	and				
And	presentation		Cytoplasm	4	8
practical	slide of the		functions		
tests	and model				
reports And	lecture				
Theoretical		1 Cell			
tests					
And			Second month		0
practical			exam	4	9
tests					
reports And					
Teporto Anu					10
					10
					11
					12
					14
					15

11. Course evaluation	
according to the tasks assigned to the student	, such as 100 Distribution of the grade out of
.etc , daily preparation, daily, oral, monthly, v	vritten exams, reports
Monthly exams 25 marks Daily preparation, daily exams and rep Practical exam: 10 marks Strive 40 degrees Final exam (45 marks for theoretical ex marks 60	
12. Learning and teaching resources	
Abdul Hussein Faisal - Cell science	Methodology, if) Required prescribed books
Gabriel Aziz - Cell Science My cell is practical book	(any
Abdul Hussein Faisal - Cell science Gabriel Aziz - Cell Science My cell is practical book The cell: microstructure and functions /	(sources) Main references
Abdul-Hussein Al-Faisal, 2000	
,Histology, ZoologyCell Biology / Abbas Hussein Mugheer Al- Rubaie , 2013	and books Recommended supporting (scientific journals, reports) references
electronic references and Use of websites	Electronic references, websites

			Course	Description		
1. 0	Course N	Name:				
H	Headway	Beginne	r			
2. 0	Course C	Code:				
3. 5	Semester	r / Year:				
	Semeste					
		_	ration Date:			
	8/2/2024					
5. A	Availabl	e Attenda	nce Forms:			
	- 1					
			Hours (Total) /	Number of Unit	ts (Total)	
		/ 15 units		. 11 . C	.1	```
			tor's name (men	tion all, if more	than one nam	ne)
			li Sabah Jameel	~		
			@uoanbar.edu.i	4		
	e Object	Dbjectives		in creative readin	σ	
		•	cognitive vocabu The ability to use materials. Ability to distin divide informatio	e multiple types of guish between co	f reading, under oncepts, and ana	stand written alyze text to
9. 7	Feaching	and Lea	rning Strategies			
Strateg			ture, group work	, and using tech	nnology tool.	
10. Co	ourse Sti	ructure				
Week	Hours	Requi	red Learning	Unit or	Learning	Evaluation
		0	utcomes	Subject Name	Method	Method
1	2	To be a people	ble to welcome	Hello.		
2	2	To be ab	le to ask about	Your World.		
3	2	people To be at oneself.	ole to introduce	All About You.		
4	2	To be al	ole to introduce I friends and ask	Family and Friend		

		questions about friends.		
5	2	To identify vocabulary about our life.	The Way Live	
6	2	To identify daily vocabulary.	Every Day.	
7	2		Mid-Term Exam	
8	2	To speak about Favourites	My Favourites.	
9	2	To ask personal information.	Where I live.	
10	2	To form past tense sentences.	Times Past.	
11	2	To speak about our daily time.	We had Great time	
12	2	To express our abilities and the verbs related to them.	I can Do It!	
13	2	To use language functions.	Please and Thank	
14	2	To use daily expressions.	Here and Now	
15	2	To express about future plans.	It's Time to Go!	
11. (Course	Evaluation		

The evaluation process consisted of 2 mid-term exams allotted 40 marks, and summative exam allotted 60 marks.

Headway Beginner

	Course Description
1. Course	Name:
	Invertebrates 2
2. Course	Code:
	EWb3202
3. Semest	er / Year: Semester
4 Descrip	tion Preparation Date:
	30-3-2024
5. Availab	le Attendance Forms:
	weekly
	of Credit Hours (Total) / Number of Units (Total)
	etical hours + 2 practical hours = (4 hours) per week
Numbe.	r of units (3)
7. Course	administrator's name (mention all, if more than one name)
	Assist.Prof. Dr. Nagam Khudhair Mahdi & Iman Fouad Mouloud
Email: G	edw.nagam1980_2005@uoanbar.edu.iq
8. Course	Objectives
Course Objective	
-	development of invertebrate animals and their
	importance
	In addition to studying all invertebrate anima
	phyla
	Identify the distinctive characteristics of eac
	division, classify them, and discuss some of them • Important models in detail and for each
	division.
	 Introducing students to the importance of
	invertebrates, their harms, and their related
	species
9. Teachin	g and Learning Strategies
Strategy	1- Explanation and clarification, 2- Lecture method, 3- Student
	groups, 4- Practical lessons in the laboratory and scientific trips,
	5- Brainstorming
	·

Week	se Struc	Required Learning	Unit or subject	Learning	Evaluation
WEER	nours		-	-	
		Outcomes		method	method
1	4	The phylum bagworms, importance classification	Invertebrates 2	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
2	4	The most important genera of bagworms Ascaris - Trichinella	Invertebrates 2	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
3	4	Pinworms and their lif cycle New Guinea worm	Invertebrates 2	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
4	4	Classification nematodes	Invertebrates 2	Explanation a presentation of slide model a lecture	Reports
5	4	Division of annelids Its importance a classification	Invertebrates 2	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
6	4	First month exam	Invertebrates 2		Theoretical test Practical tests Reports
7	4	Examples Genera of earthwo medical leech, sandworm	Invertebrates 2	Explanation presentation of slide model lecture	Theoretical tests Practical tests Reports
8	4	The arthropod phylum its general characterist and importance	Invertebrates 2	Explanation presentation of slide model lecture	Theoretical test Practical tests Reports
9	4	The most important ty of arthropods Some of its species, st as water fleas, scorpic and spiders	Invertebrates 2	Explanation presentation of slide model lecture	Theoretical test Practical tests Reports
10	4	Phylum Mollusca, their general characteristics a classification	Invertebrates 2	Explanation presentation of slide model lecture	Theoretical test Practical tests Reports
11	4	Snails - oysters - octor The most important cycles	Invertebrates 2	Explanation a presentation of slide model a lecture	Theoretical tests Practical tests Reports

12	4	Second month exam	Invertebrates 2		Theoretical test Practical tests Reports
13	4	Thephylum Echinodermata and general characteristic	Invertebrates 2	Explanation a presentation of slide model a lecture	Theoretical tes
14	4	Echinodermata gener Starfish and cucumber	Invertebrates 2	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
15	4	Division Hemichordata	Invertebrates 2	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
11. Co	urse Ev	valuation			
Daily prep Practical e Strive 40 d	aration xam: 1(legrees				
Daily prep Practical e Strive 40 d Final exam	aration xam: 1(legrees n (45 ma	, daily exams and reports 5 1) marks arks for theoretical exam + 1		ical exam) = 60	marks
Daily prep Practical e Strive 40 d Final exam 12. Lea	aration xam: 10 legrees n (45 ma arning a	, daily exams and reports 5 1) marks	5 marks for pract	e science - Mu	rad Baba Mu ok
Daily prep Practical e Strive 40 d Final exam 12. Lea	aration xam: 10 legrees n (45 ma arning a extbooks	, daily exams and reports 5 n) marks arks for theoretical exam + 1 and Teaching Resources s (curricular books, if any)	5 marks for pract Invertebrate Practical inv Invertebrate P,S,VERMA Invertebrate Practical inv	e science - Mu es - Sharuk ertebrates bo rate Zoology- E,L, e science - Mu	rad Baba Mu ok GORDAN rad Baba Mu ok
Daily prep Practical e Strive 40 d Final exam 12. Lea Required te	aration xam: 10 legrees n (45 ma arning a extbooks ences (s	, daily exams and reports 5 m) marks arks for theoretical exam + 1 and Teaching Resources s (curricular books, if any) ource)	5 marks for pract Invertebrate Invertebrate Practical inv Invertebrate P,S,VERMA Invertebrate Practical inv Invertebrate Practical inv Invertebrate Practical inv Invertebrate Practical inv Invertebrate Practical Inv	e science - Mu es - Sharuk ertebrates bo rate Zoology- E,L, e science - Mu es - Sharuk ertebrates bo rate Zoology- E,L, ctical Parasito rertebrates, Ge cal Book e Biology\D	rad Baba Mu ok GORDAN rad Baba Mu ok GORDAN ology, Obscur eneral

		Cou	ise Description				
1. Co	urse Na	me:					
	Crimes of the defunct Baath Party						
2. Co	urse Co	de:					
3. Ser	nester	/ Year:	~				
			Semester				
4. Des	scriptio	n Preparation Date:					
			31-3-2024				
5. Av	ailable A	Attendance Forms:					
6 Nu	mher of	Credit Hours (Total)	/ Number of Units	(Total)			
		al hours = (2 hours) p		(10111)			
		units (2)					
					,		
		dministrator's name			name)		
		ammad Abd allah & : v.mohammedagk@u		lory			
		tan@uoanbar.edu.iq					
	urse Ob						
Course Ob			udents to the crimes of th	ne Baath Party			
	-	• In addition to civil and politic	knowing the violations c	ommitted by the fo	rmer regime agains		
		• Explaining the	e effects resulting from th	ne wars on Iraqi soi	l during the period		
		the former regin					
		ind Learning Strategi			-		
Strategy		Explanation and clar			udent groups,		
		actical lessons in the Brainstorming	laboratory and scie.	nunc uips,			
		Drumstorning					
10. Course Structure							
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation		
		Outcomes	name	method	method		
		Violations of rights and freedoms	Crimes of the defunct Baath Party	theoretical	Theoretical questions and		
1	2	and incoullis	defunct Daatii Faily		discussions + or		
	•				exams		
	2	Intellectual rig violations	Crimes of the defunct Baath Party	theoretical	Theoretical questions and		
L		violutions	actuater Duath Fully	1	questions and		

					discussions + or
					exams
3	2	Violation of the right	Crimes of the	theoretical	Theoretical
		party pluralism	defunct Baath Party		questions and
					discussions + or
					exams
4	2	Violation of freedom	Crimes of the	theoretical	Theoretical
		opinion	defunct		questions and
			Baath Party		discussions + or
					exams
5	2	Violation of internation		theoretical	Theoretical
		law / the first and seco	defunct		questions and
		Gulf wars	Baath Party		discussions + or
					exams
6	2	The impact of the Baatl		theoretical	Theoretical
		regime's behavior or	defunct		questions and
		society and its dominar	Baath Party		discussions + or
		over the state			exams
7	2	Limiting the three powe		theoretical	Theoretical
		to the Baathist regime	defunct		questions and
			Baath Party		discussions + or
					exams
8	2	Tyranny corrupts mora		theoretical	Theoretical
		and fights scholars	defunct		questions and
			Baath Party		discussions + or
					exams
9	2	first month Exam	Crimes of the		
			defunct		
			Baath Party		
10	2	The	Crimes of the	theoretical	Theoretical
		psychologi			questions and
		and social	Baath Party		discussions + or
		mechanism			exams
		used by the			
		previous			
		regime			701
11	2	Culture, media, and th	Crimes of the	theoretical	Theoretical
		militarization of socie	defunct		questions and
			Baath Party		discussions + or
		· · · · ·			exams
12	2	scorched earth policy		theoretic	Theoretical
					questions and
			Crimes of the		discussions + or
			defunct Baath Party	.1 .1 1	exams
13	2	Mass graves and bomb	Crimes of the	theoretical	Theoretical
		of places of worship	defunct		questions and
			Baath Party		discussions + or
			~		exams
14	2	The effects of the wars	Crimes of the	theoretical	Theoretical
		Iraq	defunct		questions and
			Baath Party		discussions + or

						exams
15	2	second month Exam		rimes of the defunct Baath Party		
11. Co	urse Eva	aluation				
Do daily tests Conduct monthly tests Active daily participation during the lecture and opening the door to dialogue 12. Learning and Teaching Resources						
Required te	extbooks	(curricular books, if any)	_	Platform for the crimes of the defunct Baath Party		
Main references (source)			E T W	Encyclopedia of the Iraqi Environment/Salim Matar The effect of the use of radiological weapons on the air and soil / Master's thesis		
Recommended books and references (scientific journals, reports) Crimes of forced population d Adam Suleiman				on displacemen		
Electronic references, websites. Use electronic references and websites						

1.	Course 1	Name:
_		

Biochemistry

2. Course Code:

EWB3207

3. Semester / Year:

Second course ۲۰۲٤/۲۰۲۳

4. Description Preparation Date:

2024/3/29

5. Available Attendance Forms:

weekly

6. Number of Credit Hours (Total) / Number of Units (Total)

3/4

7. Course administrator's name (mention all, if more than one name) Name: Atheer obaid talak Email: atheer_obaid@uoanbar.edu.ig

8. Course Objectives

Course Objectives

Strategy

• Knowledge of fats and their chemical composition

- Knowledge of amino acids a their role in the formation of important proteins in the organism of living organisms
- Knowing the names and type of fatty compounds

9. Teaching and Learning Strategies

The lecture is explained and clarified by presenting it to the students on the screen and re-clarifying it practicall after which the student is tested through daily exams.

Week	Hours	Required	Unit or subject	Learning	Evaluation
		Learning	name	method	method
		Outcomes			
First	4	Definition and natu of fats	Biochemistry	A theoretical and practical	Daily exams and daily
Second	٤	Fatty acids	=	lecture =	assignments =
Third	٤	Naming fatty acids	=	=	=
Fourth	٤	Polar and non-po amino acids	=	=	
Fifth	٤	The cyclic struct of sugars	=	=	=
Sixth	٤	Disaccharides a polysaccharides	=	=	=
Seventh	٤	Peptides and prote	=	=	=
Eighth	۲	First month	=	Practical and theoretical	=
Ninth	٤	exam	=	exam	=
		Quaternary structure of protein		=	
Tenth	٤	amino acids	=	=	=
Eleventh	٤	Enzymes	=	=	=
Twelveth	٤		=	=	
Thirteenth	٤	Vitamins	=	=	=
	£	Nucleic acids	=	=	=
Fourteenth		DNA synthesis		Practical and theoretical exa	=
Fifteenth	۲	Second month	=		=

11. Course Evaluation

The grade is distributed out of 100 according to the theoretical exams: 20 marks, the practical exams: 10 marks, the daily exams: 5 marks, and the daily assignments: 5 marks. The final exam is 60 marks, divided into 15 practical marks and 40 theoretical marks.

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (source)	General biochemistry book
Recommended books and references (scientific	
journals, reports…)	
Electronic references, websites.	

1.	1. Course Name:							
2.	Course (Code:						
	2							
3. 1	Semeste	er / Year:						
4.]	Descript	tion Preparation Da	ite:					
		•						
5	Availabl	e Attendance Forms	•					
6.	Number	of Credit Hours (To	tal) / Nu	mber of Uni	ts (Total)			
7.	Course	administrator's nai	me (mei	ntion all, if r	nore than on	e name)		
	Name:							
	Email:							
8. (Course (Objectives						
Course	Objective	5		•				
				•				
9.	Teaching	g and Learning Strat	egies	-				
Strategy		, <u> </u>						
10. Co	ourse St	ructure						
Week	Hours	Required Learning		or subject	Learning	Evaluation		
		Outcomes	r	iame	method	method		

11. (11. Course Evaluation							
	Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,etc.							
12. l	_earning	and Tea	aching	Resourc	es			
Require	d textboo	ks (curric	ular boo	oks, if any				
Main ref	erences	(source)						
Recommended books and references								
(scientific journals, reports)								
Electron	ic referer	ices, webs	sites.					

Со	urse Description
1. Course Name:	
	Animal Histology
2. Course Code:	
	EWb4305
3. Semester / Year:	
	Semester
4. Description Preparation Dates	:
	1-4-2024
5. Available Attendance Forms:	
	Weekly
6. Number of Credit Hours (Total)	
Number of units (3)	cal hours = (4 hours) per week
Name: Shymaa Hajlan Sayer &	e (mention all, if more than one name)
Email: Edw.Shmaah.s@uoanbar.edu.iq	a Nucea Abiu Al-Ain
naba.mutia@uoanbar.edu.iq	
8. Course Objectives	
	issues and the distinctive characteristics of each
tissue	
• Identify the most important s	pecializations of the cells of the human or animal
body	
• Identify the most important fu	unctions of tissues and their locations
9. Teaching and Learning Strateg	
Strategy	Presenting the lecture through a meeting
	using the Whitboard or projector (data
	show)- dialogue - group discussion -
	investigation and exploration - problem
	1

solving - scientific research - practical application in the laboratory brainstorming.

10. Cours	10. Course Structure								
Week	Hours	Required Learning	Unit or	Learning method	Evaluation				
		Outcomes	subject name		method				
1	4	Typical explanation of slides and lecture	Histological section of simple & stratified epithelial tissues	Knowledge and understand Ability to analyze Developing teaching skill Practical application Skill	Theoretical tests Practical tests Reports				
2	4	Typical explanation of slides and lecture	Histological section of glands	Knowledge and understand Ability to analyze Developing teaching skill Practical application Skill	Theoretical tests Practical test Reports				
3	4	Typical explanation of slides and lecture	Celle of connective tissues	Knowledge and understand Ability to analyze Developing teaching skill Practical application Skill	Theoretical tests Practical test Reports				
4	4	Typical explanation of slides and lecture	Histological section of Loose&dense connective tissues	Knowledge and understand Ability to analyze Developing teaching skill Practical application skill	Theoretical tests Practical tests Reports				
5	4	Typical explanation of slides and lecture	Histological section of different types cartilage	Knowledge and understand Ability to analyze Developing teaching skill Practical application Skill	Theoretical tests Practical test Reports				
6	4	Typical explanation of slides and lecture , preparing reports, and discussing	Histological section of bone	Knowledge and understand Ability to analyze Developing teaching skill Practical application skill	Theoretical tests Practical tests Reports				

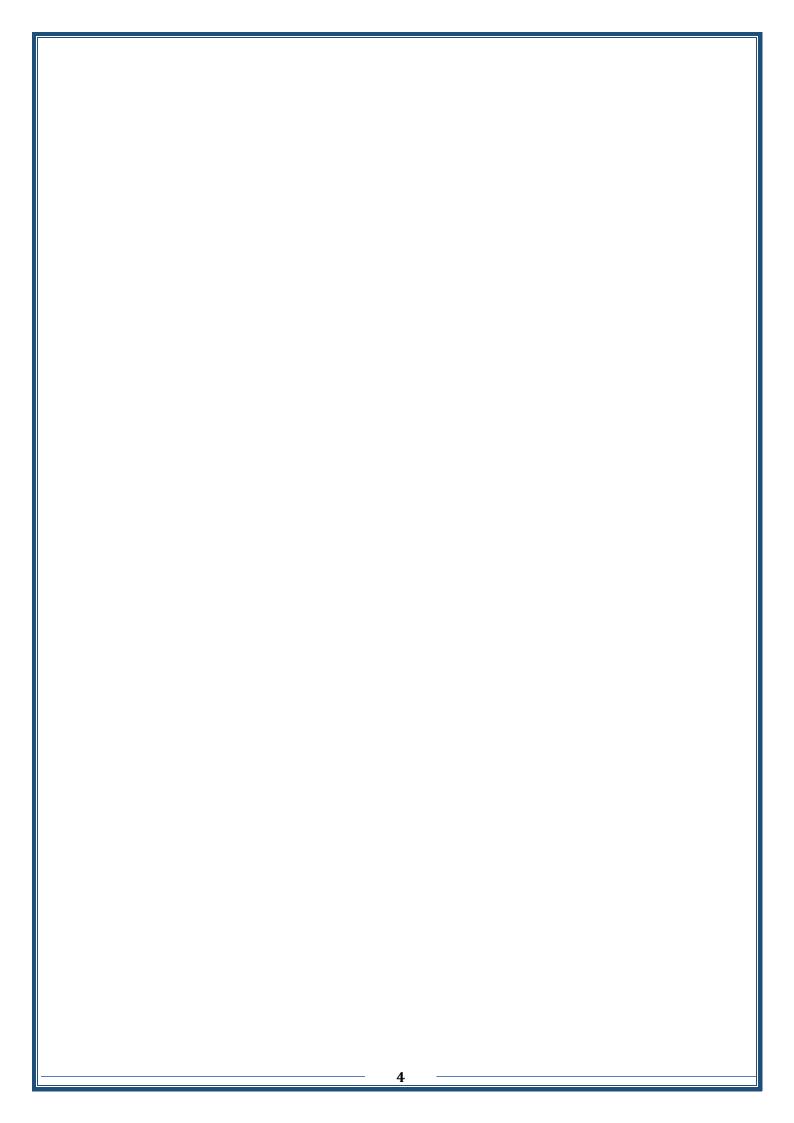
7	4	Typical explanation of slides and lecture	Types of blood cells	Knowledge and understand Ability to analyze Developing teaching skill Practical application Skill	Theoretical tests Practical tests Reports
8	4		First month exam		Theoretical tests Practical test Reports
9	4	Typical explanation of slides and lecture	Histological section of different type of muscles	Knowledge and understand Ability to analyze Developing teaching skill Practical application Skill	Theoretical tests Practical tests Reports
10	4	Typical explanation of slides and lecture	Types of nervous cells and nervous tissues	Knowledge and understand Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical test Reports
11	4	Explanation, lecture, and presentation of the mate using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Histological section of Skin	Knowledge and understand Ability to analyze Developing teaching skill Practical application Skill	Theoretical tests Practical tests Reports
12	4	Typical explanation of slides and lecture	Histological section of esophagus, stomach & intestine	Knowledge and understand Ability to analyze Developing teaching skill Practical application Skill	Theoretical tests Practical tests Reports
13	4		second month exam		Theoretical tests Practical test Reports
14	4	Typical explanation of slides and lecture	Histological section in trachea & alveoli	Knowledge and understand Ability to analyze Developing teaching skill Practical application skill	Theoretical tests Practical tests Reports

15	4	Typical explanation of slides and lecture	Histological section Kidney , glomerulus & tubule.	Knowledge and understand Ability to analyze Developing teaching skill Practical application skill	Theoretical tests Practical test Reports		
11. Cou	urse Evalu	ation					
preparation Monthly ex Daily prepa Practical ex Strive 40 de	Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,etc. Monthly exams 25 marks Daily preparation, daily exams and reports 5 marks Practical exam: 10 marks Strive 40 degrees Final exam (45 marks for theoretical exam + 15 marks for practical exam) = 60 marks						
12. Lea	rning and	Teaching Resources					
Required te	xtbooks(c	urricular books, if any)	Educational histology - Abdul Hakim Ahmed Al-Rawi				
Main refere	nces (sourc	e)	Lowe J,S,Anderson p and Anderson 2018 stevens and lowes Humon E- BOOK :Elservier H ealth Sciences				
Recomment reports)	ded books	s and references (sc	ientific journals,	Histology written by Noman Nasr Practical animal tissue b	Dr. Ahmed		
Electronic re	eferences, v	websites.		Use electronic referen websites	ces and		

		Course Description
1. Cours	se Name: Plant A	Anatomy
2. Cours	se Code: EWb32	.03
3. Seme	ster / Year: Sen	nester
4 5		
4. Descr	ription Preparat	tion Date:30/3/2024
5. Avail	able Attendance	Forms:
6. Numb	per of Credit Hou	ars (Total) / Number of Units (Total):48
7 Cours	se administrato	r's name (mention all, if more than one name)
	e: khansaa khair	
		oanbar.edu.iq edw.saja76bio@uoanbar.edu.iq
Lingi		canbaricaanq carrisajar obroe acarisaricaanq
8. Cours	e Objectives	
Course Object	ives	Introduce the student in detail about the meaning of
		plant anatomy.
		 Introduce the student to the different parts of the plant anotomically.
		plant anatomically.Introduce the student to the types of plant tissues
		and the basis for classification
		 Introduce the student to how to distinguish between
		primary and secondary growth in plants
9. Teach	ning and Learnin	g Strategies
Strategy	1- Explan	ation and clarification
		ethod of the lecture
	3- Studen	0
	4- Practic	cal lessons in the laboratory and scientific trips
10. Course	Structure	

Week	Hours	Required Learning	Unit or	Learning method	Evaluation
		Outcomes	subject		method
			name		
١	٤	Define plant anatomy	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
٢	٤	A comprehensive introduction to plant anatomy and its branches	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
٣	٤	Study of the living components of a plant cell	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
٤	٤	Study of the non-living components of plant parts	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
٥	٤	plant cell wall	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
٦	٤	Study of types of pits	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
Y	٤	A study of the most important theories that explain the formation of the cell wall	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
λ	٤	Study of the bases adopted in the classification of plant tissues	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
٩	4	Study of the collenchyma tissue	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
١.	٤	Study of the parenchymal tissue	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
11	٤	Study of the sclerenchyma tissue	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
17	٤	The study of xylem texture	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
١٣	٤	study of phloem tissue	Plant Anatomy	Explanation - model presentation slides - and lecture	Theoretical Tests Practical tests Reports
١٤	٤	Study of the vascular cambium	Plant Anatomy	Explanation - model presentation slides -	Theoretical Tests Practical tests

					and lecture		Reports
١٥	٤	Study of the cor cambium	ck Plant A	natomy	Explanation - model presentation slides - and lecture		Theoretical Tests Practical tests Reports
Distrib	uting the	Evaluation score out if 100 n, daily oral, mont				-	e student such as
12.	Learning	and Teaching I	Resources				
Require	d textbool	ks (curricular bool	ks, if any)				
Main references (source)			Fundamentals of plant anatomy Dr. Badri Owaid Al-Ani - University of Baghdad				
	Recommended books and references (scientific journals, reports)				Fundamentals of plant physiology Doctor Ahmed Mostafa Elhaya		
Electronic references, websites.			Use of electronic references, websit tes				



1. Course Name:

Scientific research method

2. Course Code:

EWB2201

3. Semester / Year:

The First / 2023-2024

4. Description Preparation Date:

31/3/2024

5. Available Attendance Forms:

weekly

6. Number of Credit Hours (Total) / Number of Units (Total)30 hours / number of units 2

7. Course administrator's name (mention all, if more than one name) Name: Marwa Ismail Habeeb Email: marwahab22@uoanbar.du.com

8. Course Objectives

Course Objectives

Introducing students to the method of scient research and how to write scientific research properly and correctly, and then qualifying students to write the research required of th in the future, especially graduation research

9. Teaching and Learning Strategies

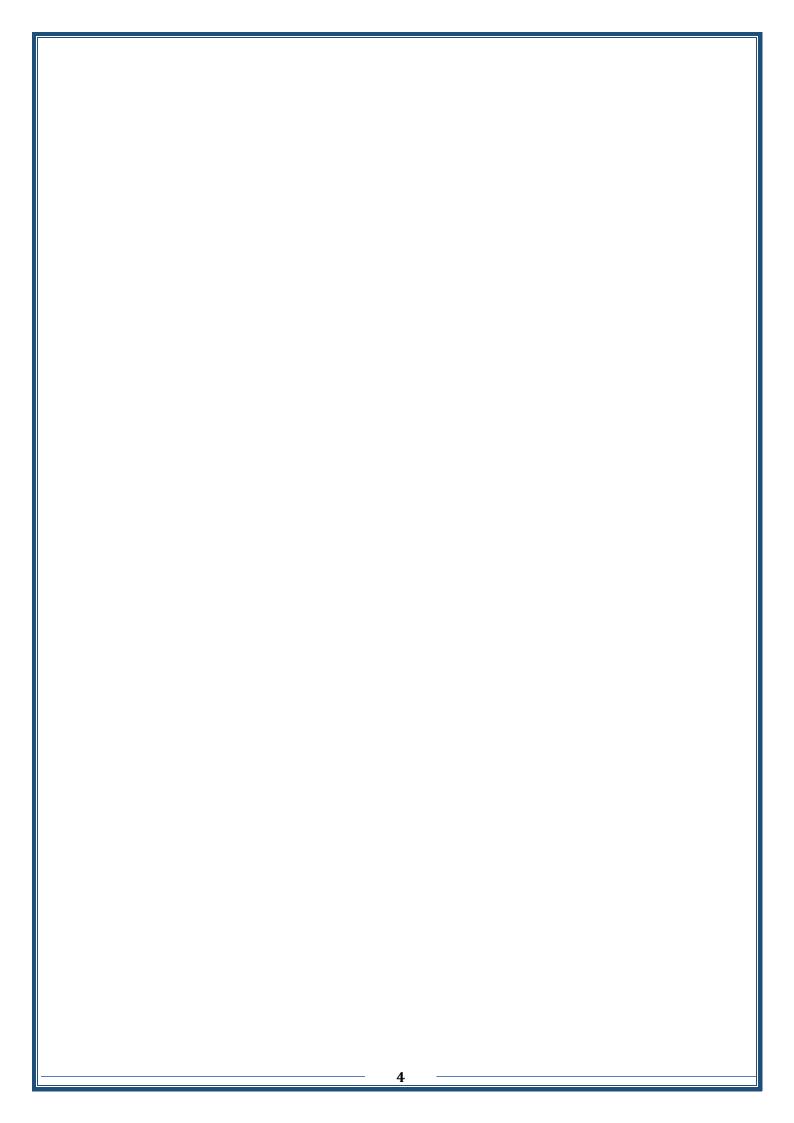
Strategy

- 1- Explanation and clarification 2- Lecture method 3- Student group
- 4- Practical lessons in the laboratory and scientific trips. Brainstorming

10. Course Structure

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
		Outcomes	name	method	method
١	2	Introduction to scientific research methodology	Scientific research method	Lecture + questions and answers	Homework +daily exam
2	2	Definition of science, method of scientific thinking, samples, research sample		Lecture + questions and answers	Daily exam
3	2	Sampling methods and methods		Lecture + questions and answers	Daily exam
4	2	Non-probability sampling, i.e. purposive or non- random sampling		Lecture + questions and answers	homework
5	2	search tools		Lecture + questions and answers	homework
6	2	First month exam		Lecture + questions and answers	homework
7	2	The descriptive scientific research method and its steps, scientific research tools, types of descriptive research, evaluation of the descriptive method		Lecture + questions and answers	Daily exam
8	2	System analysis approach and its steps, elements of the system, concept of feedback, types of system, open and closed system.		Lecture + questions and answers	homework
9	2	Experimental method, experimentation, steps of experimental research		Lecture + questions and answers	homework

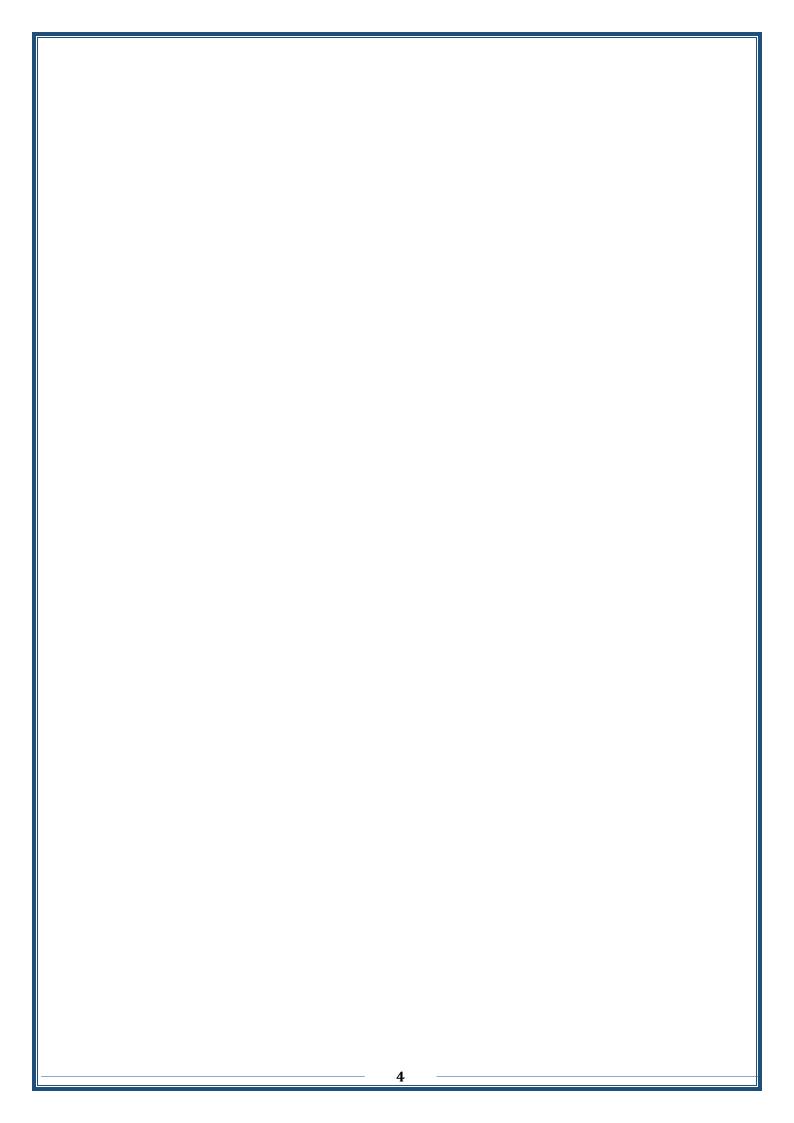
10	2	Variables,		Lecture +	Daily exam		
10	Z	objectives of		questions	Daily Exam		
		controlling		and			
		variables		answers			
11	2	Methods of		Lecture +	homework		
		controlling		questions			
		variables,		and			
		experiment,		answers			
		experimental					
		design, types of					
		experimental					
		designs					
12	2	Methods for		Lecture +	homework		
	_	conducting		questions			
		equivalence,		and			
		evaluating the		answers			
		experimental					
		method and steps for conducting it					
10	2	Second month					
13	Z	exam					
		CAIII					
14	2	Discussing					
		student research					
15	2	Discussing student					
15	4	research					
11. (Course	Evaluation					
Distribu	iting the	score out if 100 accordin	g to the tasks a	ssigned to the	student such as		
	-	n, daily oral, monthly, or w		-			
5 1	1						
Monthly	v exams a	are 30 marks					
-	•	n, daily exams and reports	10 marks				
	0 degree						
	am: 60 n						
12. 1	_earning	and Teaching Resourc					
Require	d textboo	ks (curricular books, if any	Fundamen	Fundamentals of research / Abdul Hadi			
· · · · · · · · · · · · · · · · · · ·			Al-Fadhli				
Main references (source)			Fundamenta	Fundamentals of scientific research, Dr. Qub			
			Abdel Fattal	n and others.			
Recommended books and references			s Compr	rehensive library			
(scientifi	ic journal	s, reports…)					
`		/					
Electron	lic referer	nces, websites.					



1. Course Name:	
Algae	
2. Course Code:	
EWb3204	
3. Semester / Ye	ar:
First semester 2	024
4. Description Pr	eparation Date:
30/3/2024	
5. Available Atter	ndance Forms:
Classroom and	l Laboratory
6. Number of Cre	dit Hours (Total) / Number of Units (Total)
7. Course admir Name: Ass. Pr	edit Hours : 2 Number of Units : 2 histrator's name (mention all, if more than one name) off Abdul-Nasir Abdulla Mahdi hisir63abdulla@uoanbar.edu.iq ves Identify algae Its iocation in the plant kibgdom Its classification , presence , and methods reproduction
	Its benefits and harms .
9. Teaching and I	_earning Strategies
Strategy	1- Daily and monthly testes
	2- Writing reports related to the material.
	3- Ask questions and discuss them with students .
	4- Assigning students to search for the late
	developments in the subject on websites
	5- Use of electronic clarification means.

Week	Hours	Required	Unit or	Learning	Evaluation
		Learning	subject name	method	method
		Outcomes	-		
Week 1	2	To prepare the student to be a successful biolo teacher or researcher	Introduction	Lecture , electron presentation and discussion	Theoretical question , discussions oral tests
Week 2	2	To prepare the student to be a successful biology teacher researcher	Classification of Algae	Lecture , electron presentation and discussion	Theoretical question, discussions oral tests
Week 3	2	To prepare the student to be a successful biology teacher researcher	Classification of Algae	Lecture , electron presentation and discussion	Theoretical question, discussions oral tests
Week 4	2	To prepare the student to be a successful biology teacher researcher	Divition : Chlorophyta	Lecture , electron presentation and discussion	Theoretical question, discussions oral tests
Week 5	2	To prepare the student to be a successful biology teacher researcher	Order : Tetrasporales	Lecture , electror presentation and discussion	Theoretical question, discussions oral tests
Week 6	2	To prepare the student to be a successful biology teacher researcher	Order : Zygnematales	Lecture , electror presentation and discussion	Theoretical question, discussions oral tests
Week 7	2	To prepare the student to be a successful biology teacher researcher		Lecture , electror presentation and discussion	Theoretical question , discussions oral tests
Week 8	2	To prepare the student to be a successful biology teacher researcher	Divition : Chrysophyta (Golden Algae)	Lecture , electror presentation and discussion	Theoretical question , discussions oral tests
Week 9	2	To prepare the student to be a successful	Class : Bacillariophyceae Diatoms)	Lecture , electron presentation and discussion	Theoretical question, discussions oral tests

Week 102To prepare the student to be a successful biology teacher researcherDivition : PyrrophytaLecture , electron presentation and discussionTheoretical question , discussions , oral testsWeek 112To prepare the student to be a successful biology teacher researcherClass : HetrogenerateLecture , electron presentation and discussionTheoretical question , discussion s, oral testsWeek 122To prepare the student to be a successful biology teacher researcherMonthly Exam.Lecture , electron presentation and discussionTheoretical question , discussion s, oral testsWeek 132To prepare the student to be a successful biology teacher researcherDivision : RhodophytaLecture , electron presentation and discussionTheoretical question , discussions, oral testsWeek 142To prepare the student to be a successful biology teacher researcherDivision : RhodophytaLecture , electron presentation and discussionWeek 142To prepare the student to be a successful biology teacher researcherMonthly Exam. Lecture , electron presentation and discussionLecture , electron oral testsWeek 152To prepare the student to be a successful biology teacher researcherMonthly Exam. Lecture , electron presentation and discussion11.Course EvaluationTo prepare the student to be a successful biology teacher researcherMonthly Exam. Lecture , electron presentation a							
Procession Proprior Proprior Proprior Propreate the student			researcher	Di::4:			
Week 11 2 To prepare the student to be a successful biology teacher researcher Class : Heterogenerate student to be a successful biology teacher researcher Lecture, electron discussion, oral tests Week 12 2 To prepare the student to be a successful biology teacher researcher Monthly Exam. Lecture, electron discussion, discussion, oral tests Week 13 2 To prepare the student to be a successful biology teacher researcher Division : Rodophyta Lecture, electron discussion, discussion, discussion, discussion, discussion, discussion, discussion, discussion, discussion, oral tests Week 13 2 To prepare the student to be a successful biology teacher researcher Ecological and feononic researcher Lecture, electron discussion, discussion, discussion, discussion, discussion, oral tests Week 14 2 To prepare the student to be a successful biolog teacher or researcher Monthly Exam. Lecture, electron discussion, discussion, oral tests Week 15 2 To prepare the student to be a successful biolog teacher or researcher Monthly Exam. Lecture, electron discussion, oral tests 11. Course Evaluation Successful biolog teacher or researcher Lecture, electron discussion, oral tests 12. Learning and Teaching Resources 1- Algae and Archegoneates by Bahram K.M. and Dr. Ali H. Saadi 2. Website <t< td=""><td>Week 10</td><td>Z</td><td>student to be a successful</td><td>Pyrrophyta</td><td>l</td><td>presentation and</td><td>question , discussions , a</td></t<>	Week 10	Z	student to be a successful	Pyrrophyta	l	presentation and	question , discussions , a
Week 11 2 To prepare the student to be a successful biology teacher researcher Class : Heterogenerate student to be a successful biology teacher researcher Lecture , electron discussion discussion discussions, oral tests Week 12 2 To prepare the student to be a successful biology teacher researcher Monthly Exam. : Lecture , electron presentation and discussion duestion , discussions, oral tests Week 13 2 To prepare the student to be a successful biology teacher researcher Division : Rhodophyta Lecture , electron presentation and discussion Week 14 2 To prepare the student to be a successful biolog teacher researcher Division : Rhodophyta Lecture , electron discussion discussions, oral tests Week 14 2 To prepare the student to be a successful biolog teacher or researcher Monthly Exam. Lecture , electron discussion discussion, oral tests Week 15 2 To prepare the student to be a successful biolog teacher or researcher Monthly Exam. Lecture , electron discussion discussion, oral tests 11. Course Evaluation To prepare the student to be a successful biolog teacher or researcher Monthly Exam. Lecture , electron discussion, oral tests 12. Learning and Teaching Resources Required textbooks (curricular books, if any) 1 Algae and Archegoneate							or ar tests
Week 12 2 To prepare the student to be a successful biology teacher researcher Monthly Exam. Lecture , electron discussion, oral tests Week 13 2 To prepare the student to be a successful biology teacher researcher Division : Rhodophyta Lecture , electron discussion, oral tests Week 14 2 To prepare the student to be a successful biology teacher researcher Division : Rhodophyta Lecture , electron discussion, oral tests Week 14 2 To prepare the student to be a successful biology teacher researcher Foological and fiscussion Theoretical question , discussion, oral tests Week 15 2 To prepare the student to be a successful biology teacher or researcher Monthly Exam. Lecture , electron discussion, oral tests Week 15 2 To prepare the student to be a successful biology teacher or researcher Lecture , electron discussion, oral tests Theoretical question , discussion, oral tests 11. Course Evaluation Monthly Exam. Lecture , electron discussion, oral tests Theoretical question , discussion, oral tests 12. Learning and Teaching Resources Required textbooks (curricular books, if any) 1- Algae and Archegoneates by Bahram K.M. and Dr. Ali H. Saadi 2- Website Main references (source) Lectures led by the subject professate 2- Websit	Week 11	2	To prepare the student to be a successful	Heterogene	erate	presentation and	question , discussions , ;
Week 12 2 To prepare the student to be a successful biology teacher researcher Monthly Exam. Lecture , electron presentation and discussion or al tests Week 13 2 To prepare the student to be a successful biology teacher researcher Division : Rhodophyta discussion Lecture , electron presentation and discussion or al tests Week 14 2 To prepare the student to be a successful biology teacher researcher Division : Rhodophyta discussion discussion Lecture , electron discussion or al tests Week 14 2 To prepare the student to be a successful biology teacher researcher Ecological and feonomic teacher or researcher Lecture , electron discussion discussion or al tests Week 15 2 To prepare the student to be a successful biology teacher researcher Monthly Exam. Lecture , electron discussion discussio			0,				
Neek 16 L Student to be a successful biology teacher researcher Rhodophyta discussion presentation and discussion or al tests or al tests Week 14 2 To prepare the student to be a successful biolog teacher or researcher Ecological and Economic Importance of Alg Lecture , electron discussion or al tests Week 15 2 To prepare the student to be a successful biolog teacher or researcher Monthly Exam. Lecture , electron discussion or al tests 11. Course Evaluation Monthly exam : 20% , Daily exam : 5% , Reports : 5% , Practical exam : 10% , Final exam : 60% 12. Learning and Teaching Resources 1- Algae and Archegoneates by Bahram K.M. and Dr. Ali H. Saadi 2- Website Main references (source) Lectures led by the subject professor Recommended books and references (scientific journals, reports) Lectures led by the subject professor	Week 12	2	To prepare the student to be a successful biology teacher		xam. 2	presentation and	question , discussions , a oral tests
Week 15 2 To prepare the student to be a successful biolog teacher or researcher Monthly Exam. Lecture, electroni presentation and discussion discussion, oral tests Question, discussion, oral tests 11. Course Evaluation Monthly exam : 20%, Daily exam : 5%, Reports : 5%, Practical exam : 10%, Final exam : 60% Presentation and discussion discussion discussion discussion discussion discussion 1- Algae and Archegoneates by Bahram K.M. and Dr. Ali H. Saadi 2- Website Main references (source) Lectures led by the subject professor Recommended books and references (scientific journals, reports) Lectures led by the subject professor	Week 13	2	student to be a successful biology teacher	Rhodophyt	a	presentation and	question , discussions , a
Image: Student to be a student or researcher presentation and discussion question, discussions, oral tests 11. Course Evaluation Monthly exam : 20%, Daily exam : 5%, Reports : 5%, Practical exam : 10%, Final exam : 60% Image: Student to books, Final exam : 10%, Final exam : 60% 12. Learning and Teaching Resources Image: Student to books, if any) Image: Algae and Archegoneates by Bahram K.M. and Dr. Ali H. Saadi 2. Website Image: Student test books, and references (scientific journals, reports) Image: Lectures led by the subject professor	Week 14	2	student to be a successful biolog teacher or	Economic Importance		presentation and	question , discussions , a
Monthly exam : 20% , Daily exam : 5% , Reports : 5% , Practical exam : 10% , Final exam : 60% 12. Learning and Teaching Resources Required textbooks (curricular books, if any) 1- Algae and Archegoneates by Bahram K.M. and Dr. Ali H. Saadi 2- Website Main references (source) Lectures led by the subject professor Recommended books and references (scientific journals, reports) Image: scientific scien	Week 15	2	student to be a successful biolog teacher or	-	am.	presentation and	question , discussions , a
exam : 60% 12. Learning and Teaching Resources Required textbooks (curricular books, if any) 1- Algae and Archegoneates by Bahram K.M. and Dr. Ali H. Saadi 2- Website Main references (source) Lectures led by the subject professor Recommended books and references (scientific journals, reports) Image: scientific	11. Cour	se Evaluation	I				
Required textbooks (curricular books, if any) 1- Algae and Archegoneates by Bahram K.M. and Dr. Ali H. Saadi 2- Website Main references (source) Lectures led by the subject professor Recommended books and references (scientific journals, reports) Image: scientific scien	exam : 60%)	-	-	%, F	Practical exam : 1	.0% , Final
Main references (source) Lectures led by the subject professor Recommended books and references (scientific journals, reports) Lectures led by the subject professor	12. Lear	ning and Tead	ching Resources				
Recommended books and references (scientific journals, reports)	Required textbooks (curricular books, if any)				Ba Sa	ahram K.M. and aadi	5
Recommended books and references (scientific journals, reports)	Main references (source)				Lectu	ires led by the sul	oject professo
journals, reports)		· · /	nd references	(scientific			
				`			
		,	es.				



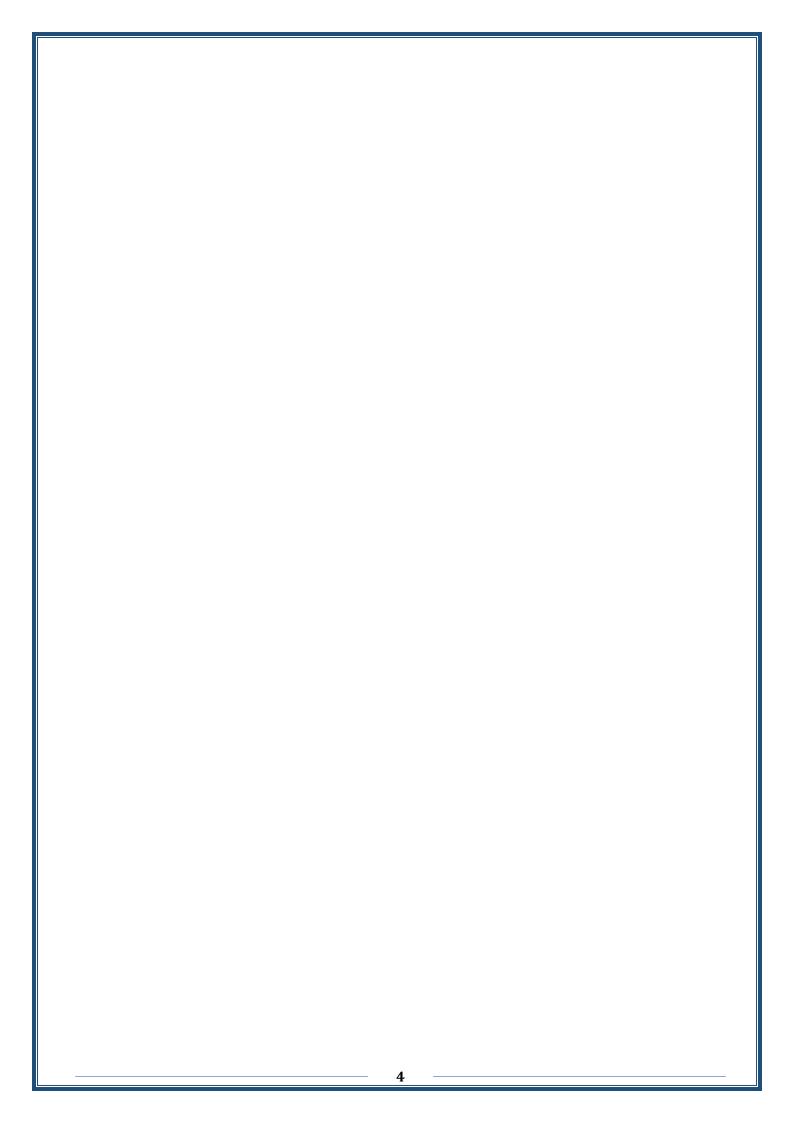
		course	Description		
1.	Course I	Name: embryology			
2. Course Code: EWB3209					
3. 5	Semeste	er / Year: Semester			
4.]	Descript	tion Preparation Date:2	29/3/2024		
5.	Availabl	e Attendance Forms:			
6.	Number	of Credit Hours (Total)	/ Number of Unit	ts (Total) 60h	oers
7.	Course	administrator's name	(mention all, if r	nore than or	e name)
]	Name: A	smaa Wajeeh jumaa			
]	Email: e	dw.ah2010n@uoanbar	.edu.iq		
0	0				
		Objectives			
Course	Objectives	5	•		
			•	•••••	
0.	Teaching	g and Learning Strategie	•		
Strategy		g and Learning etrategie			
	ourse St	nicture			
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
WEEK	TIOUIS	Outcomes	name	method	method
1	2	Introduction and	name	method	method
		ind outeron and			
		Definition of embryology			
2	2	Definition of embryology The Quran of embryology			
23	2 2	Definition of embryology			
2 3 4	2 2 2	Definition of embryology The Quran of embryology The importance of embryolog			
23	2 2	Definition of embryology The Quran of embryology The importance of embryolo Gamete formation			
2 3 4 5	2 2 2 2 2	Definition of embryology The Quran of embryology The importance of embryolo Gamete formation Egg formation			

9	2	Growth and differentiation				
10	2	Formation of sperm				
11	2	Embryonic formation of The frog				
12	2	Embryonic formation of fish				
13	2	Embryonic formation of chicken				
14	2	Embryonic formation of human				
15	2	Second month exam				
11. 0	Course E	Evaluation				
	-	score out if 100 accordin n, daily oral, monthly, or wi	-	-	student such as	
12. L	.earning	and Teaching Resource	es			
Required	textbool	ks(curricular books, if any)	Embry	yology		
Main references (source)						
Recomm	nended	books and reference	s			
(scientific journals, reports)						
Electroni	Electronic references, websites.					

Course Description				
1. Course Name:				
Archegoniates				
2. Course Code:				
EWB32O6				
3. Semester / Ye	ar:			
Second semest	er 2024			
4. Description Pr	reparation Date:			
30/3/2024				
5. Available Atter	ndance Forms:			
Classroom and	d Laboratory			
6. Number of Cre	dit Hours (Total) / Number of Units (Total)			
	edit Hours : 2 Number of Units : 2			
	nistrator's name (mention all, if more than one name) off Abdul-Nasir Abdulla Mahdi			
	asir63abdulla@uoanbar.edu.iq			
	asir osabaanae aoanbar.eaa.iq			
8. Course Objecti	ves			
Course Objectives	Identify Archegoniates			
	Its iocation in the plant kibgdom			
	Its classification , presence , and methods			
	reproduction			
	Its benefits and harms .			
9. Teaching and	Learning Strategies			
Strategy	1- Daily and monthly testes			
	2- Writing reports related to the material.			
	3- Ask questions and discuss them with students .			
	4- Assigning students to search for the late			
	developments in the subject on websites			
	5- Use of electronic clarification means.			
L	1			

Week	Hours	Required	Unit or	Learning	Evaluation
		Learning	subject name	method	method
		Outcomes			
Week 1	2	To prepare the student to be a successful biolo teacher or researcher	Introduction	Lecture , electron presentation and discussion	Theoretical question , discussions oral tests
Week 2	2	To prepare the student to be a successful biology teacher researcher	Bryophytes Classification – Riccia	Lecture , electron presentation and discussion	Theoretical question, discussions oral tests
Week 3	2	To prepare the student to be a successful biology teacher researcher	Marchantia	Lecture , electron presentation and discussion	Theoretical question, discussions oral tests
Week 4	2	To prepare the student to be a successful biology teacher researcher	Pellia	Lecture , electron presentation and discussion	Theoretical question, discussions oral tests
Week 5	2	To prepare the student to be a successful biology teacher researcher	Anthceros	Lecture , electror presentation and discussion	Theoretical question, discussions oral tests
Week 6	2	To prepare the student to be a successful biology teacher researcher	Monthly Exam	Lecture , electror presentation and discussion	Theoretical question , discussions oral tests
Week 7	2	To prepare the student to be a successful biology teacher researcher		Lecture , electror presentation and discussion	Theoretical question , discussions oral tests
Week 8	2	To prepare the student to be a successful biology teacher researcher	Funaria	Lecture , electror presentation and discussion	Theoretical question, discussions oral tests
Week 9	2	To prepare the student to be a successful	Pteridophytes – Psilotum	Lecture , electron presentation and discussion	Theoretical question, discussions oral tests

		researcher				
Week 10	2	To prepare the	Lycopodiu	ım	Lecture , electron	
		student to be a			presentation and	question ,
		successful			discussion	discussions,
		biology teacher				oral tests
		researcher				
Week 11	2	To prepare the	Equisetum	1	Lecture , electron	
		student to be a			presentation and discussion	question,
		successful			uiscussion	discussions , oral tests
		biology teacher				0141 (1313
		researcher	A		T	
Week 12	2	To prepare the	Adiantum		Lecture , electron	
		student to be a			presentation and discussion	question , discussions ,
		successful			uiscussion	oral tests
		biology teacher				or ar ceses
		researcher	Monthly F		Lastura alastron	Theoretical
Week 13	2	To prepare the	Monthly E	am	Lecture , electron presentation and	question,
		student to be a successful			discussion	discussions,
					ulbeussion	oral tests
		biology teacher researcher				
	2	To prepare the	Salvinia		Lecture , electron	Theoretical
Week 14	Z	student to be a	Sarvinia		presentation and	question ,
		successful biolog			discussion	discussions,
		teacher or				oral tests
		researcher				
Week 15	2	To prepare the	Gymnospe	rmae	Lecture , electroni	Theoretical
WEEK 15		student to be a	· I		presentation and	question ,
		successful biolog			discussion	discussions,
		teacher or				oral tests
		researcher				
11. Cours	se Evaluation				11	
Monthly exa	m:20%, Da	ily exam: 5%, F	Reports : 5	5%,	Practical exam : 1	0% , Final
exam : 60%	1					
12. Learr	ning and Tea	ching Resources	6			
Required text	books (curricul	ar books, if any)		1- A	lgae and Archeg	oneates by
					ahram K.M. and	2
					aadi	
				2- V	Vebsite	
				Lecti	ares led by the sul	viect professo
Main reference	\ /	nd references	(colontific		IT ES IEU DY UIE SUL	Jeet professo
journals, repo		nd references	(scientific			
	/	205				
	erences, websit					



1. Course	1. Course Name:					
Headway Plus Pre-Intermediate						
2. Course	Code:					
3. Semest	er / Year:					
Semes	ter					
4. Descrij	otion Preparation Date:					
28/٣/202	24					
5. Availa	ole Attendance Forms:					
Attend	ance in classrooms					
6. Numbe	r of Credit Hours (Total) /	Number of Units	(Total)			
30 hou	rs / 15 units					
7. Course	administrator's name (mer	ntion all, if more th	nan one nam	ne)		
Name:	Prof.Dr. Ali Sabah Jameel					
Email:	alisabah40@uoanbar.edu.i	iq				
8. Course	Objectives					
	 mastering writing, and developing a cognitive vocabulary store. The ability to use multiple types of reading. understand written materials, distinguish between concepts, and analyze text to divide information into parts. Forming a coherent cognitive text that expresses information in a specific field. 					
9. Teachi	ng and Learning Strategies	1				
	Modern lecture, group wor		ology tool.			
10. Course S	Structure					
Week Hours	Required Learning	Unit or Subject	Learning	Evaluation		
	Outcomes	Name	Method	Method		
1 2	As mentioned in item 8	Getting to Know				
2 2	As mentioned in item 8	You Whatever Makes				
3 2	As mentioned in item 8	You Happy. What's in the News.				
$\begin{array}{c c} 3 & 2 \\ \hline 4 & 2 \end{array}$	As mentioned in item 8	Review Units 1, 2,				
		and 3.				
5 2	As mentioned in item 8	s mentioned in item 8 Eat, Drink. And be				
6 2		Merry! As mentioned in item 8 Looking Forward.				

7	2	As mentioned in item 8	The Way I see it.			
8	2	As mentioned in item 8	Mid-Term Exam			
9	2	As mentioned in item 8	Living History.			
10	2	As mentioned in item 8	Girls and Boys.			
11	2	As mentioned in item 8	Time for a Story.			
12	2	As mentioned in item 8	Our Interactive World.			
13	2	As mentioned in item 8	Life's What you make it!			
14	2	As mentioned in item 8	Just Wondering.			
15	2	As mentioned in item 8	Review Units 7 -12.			
11. (Course I	Evaluation				
The evaluation process consisted of 2 mid-term exams allotted 40 marks, and summative exam allotted 60 marks.						
12.Learning and Teaching Resources						
Required textbooks (curricular books, if any) Headway Plus Pre-Intermediate					diate	
Main references (source)						
Recommended books and references (scientific						

journals, reports...)

Electronic references, websites.

1. Cour	se N	ame:			
Genetic	s 2				
2. Cour	se C	ode:			
EWB3304					
3. Seme	estei	r / Year:			
First Se	mes	ter / 2024			
4. Desc	ripti	on Preparation Date:			
– Addin	g ne	ew sciences for students for fut	ure benefit		
– Keep	ng p	pace with scientific developmen	ıt		
– The s	tude	ent knows the basic principle of	genetics		
5. Avai	lable	Attendance Forms:			
		ice in classrooms			
		of Credit Hours (Total) / Number	er of Units (Tot	al)	
30 th	eor	etical/2			
7. Cour	se a	administrator's name (mentic	on all, if more t	han one name	e)
Nam	e: As	ssist. Prof. Dr. Omar Ismail Ha	zem		
<u>aq.or</u>	nar.	<u>hazym@uoanbar.edu.iq</u>			
Emai	l: As	ssisi. Prof. Dr. Hadeel Abdelela	ah Abdel Razaa	q	
<u>sc.ha</u>	dee	<u>aldaraji@uoanbar.edu.iq</u>			
8. Cours	se C	bjectives			
Course Objec	tives			ding new sciences	s for students f
				re benefit	aiantifia
			 Keeping pace with scientific development 		
			• The student knows the basic		
			princ	ciple of genetics •	,
9. Teac	hing	and Learning Strategies			
Strategy		Student activities			
		Legends			
		Daily exams			
		Reports Discussions during the le	cture		
		Discussions during the re-			
10. Course					
Week	Η	Required Learning Outcomes	Unit or	Learning	Evaluation

	ο		subject name	method	method
	ur				
	s				
the first		Adding a new scientific	Estimating the	Theoretical demonstrat	Daily
the second	4	aspect + cognitive objectiv Adding a new scientific aspect + cognitive objectiv	Estimating the number of genes for quantitative traits	Theoretical +	exams Daily exams
the third		Adding a new scientific aspect +	Gender assignment	demonstration	Duily chains
the fourth		cognitive objectives	Sex-related traits Linkage,	Theoretical + demonstration	Daily exams
Fifth		Adding a new scientific aspect + cognitive objectiv	crossing, and genetic maps Cytoplasmic	Theoretical + demonstration	Daily exams
VI Seventh		Adding a new scientific aspect + cognitive objectiv Adding a new scient	inheritance First month exam Genetic	Theoretical + demonstration	Daily exams
Ninth The tenth		aspect + cognitive objectiv Adding a new scientific aspe + cognitive objectives	mutations Chromosomal mutations Genetic	Theoretical + demonstration	Daily exams
eleventh		Adding a new scientific aspect cognitive objectives	structure, chromosomal and genetic	Theoretical + demonstration	Daily exams
twelveth		Adding a new scientific aspe + cognitive objectives	mutations Genetic structure,	Theoretical + demonstration	Daily exams
Thirteenth fourteenth		Adding a new scientific aspe + cognitive objectives	chromosomal and genetic mutations	Theoretical + demonstration	Daily exams
Fifteenth		Adding a new scientific aspect + cognitive objectives	Genes and heredity	Theoretical + demonstration	Daily exams
		Adding a new scientific aspe + cognitive objectives	Evidence that DNA is the genetic material	Theoretical + demonstration	Daily exams
		Adding a new scientific aspe + cognitive objectives Adding a new scientific aspe	Stability of the amount of DNA in chromosomes	Theoretical + demonstration	Daily exams
		+ cognitive objectives Adding a new scientific asp	The nature of nucleic acids	Theoretical + demonstration	Daily exams
		+ cognitive objectives	Replication of deoxygenated genetic material Translation The importance of proteins in		
		valuation score out if 100 according to the	genetics	to the student s	uch as dailv

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preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Basics of genetics, introduction human genetics
Main references (source)	Jenna Smith, The Post-Genomic E Jenna Smith, The Post-Genomic Era
Recommended books and references (scientific	
journals, reports)	
Electronic references, websites.	

1. Course Name:

Biotechnology

2. Course Code:

EWB3311

3. Semester / Year:

Semester

4. Description Preparation Date:

6\4\2024

- 5. Available Attendance Forms:
- 6. Number of Credit Hours (Total) / Number of Units (Total)

48 hours

7. Course administrator's name (mention all, if more than one name) Name: Assist. Prof. Dr. Mohammed Abbas Jasim Email: mohammed.a.jasim@uoanbar.edu.iq

8. Course Objectives			
Course Objectives			

Learning
biotechnology concepts and
it's medical, agricultural and
industrial application

Learning

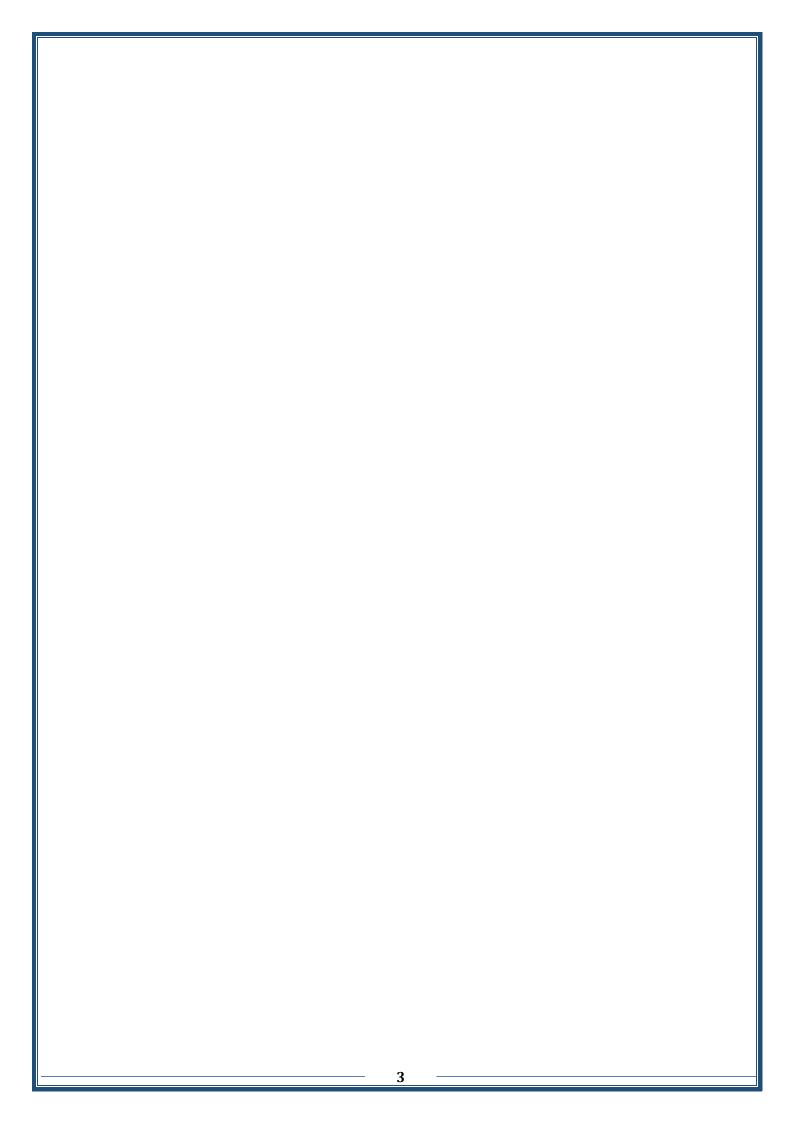
- Theoretical teaching
 - Practical teaching
 - Virtual labs

10. Course Structure

Strategy

Week	Hou rs	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	Learning and	Introduction	Theoretical	- Monthly
2	4	thinking	Biotechnology	teaching	exams

3	4	biotechnology	Fermenta	tions appli.	Practical	- Written			
4	4	concepts	Culture m	iedia	teaching	and oral			
5	4	Understanding	compositi	ion	Virtual labs	quizzes			
6	4	and	Genetic E	ngineering		-			
7	4	imagination	Plant Biot	echnology					
8	4	Connecting		cechnology					
9	4	theoretical and li							
10	4	applications	••	otechnolog					
11	4	Analyzing of thos		0					
12	4	connections	app.	0					
13	4	Explaining	Biosensoi	S					
14	4	thoughts	Gene ther	apy					
		0		nd Enzyme					
			engineeri	•					
			Scientific	0					
			ethics						
11 Cc	nurse F	Evaluation							
			anding to th	o tooloo oooio	mad to the stur	dont such as			
	-	score out if 100 accord score out if 100 accord score out if 100 accord score out in the score out is score out if 100 accord score out if 100 accord score out is score out if 100 accord score out if 100 accord score out if 100 accord score out is score out is score out is score out if 100 accord score out is score	-	-		tent such as			
Quizzes		boratory Term Test		· •	Exam Fina	al			
5		15 20	40	6					
12. Le	12. Learning and Teaching Resources								
Required t	extbool	ks (curricular books, if	any)		Biotechnology, 2016				
			,	- Molecular Biology and Biotechnology, 5th Edition,					
				Y.1A					
Main refer	ences (source)		- Agricultural Biotechnology: Strategies for					
	(/		National Competitiveness, 2020 المقدمة في الهندسة الوراثية وعلم الاحياء الجزيئي، ٢٠١١					
			-	ندسة الورانية وعلم الاحياء الجزيً بدسة الوراثية المتقدمة الاسس وال					
Deserves	ndod	actor and references	s (scientific		procedures and expe				
		books and references	handbook, Hari						
journals, re	eports	.)	S. 2007. Molecular biol	ogy and biotechnolo	gy John M				
			Walker and ral	ph Rapley 2009.					
					al cell biotechnology	Ralf Pörtner, 20			
Electronic	referen	ces, websites.							



	Course Description						
1. Course Name:							
			Basics of gene	eral entomolog	gy		
2. Cou	rse C	ode:	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
			EW	B3302			
			Semest	er / Year:			
			Sen	nester			
			Description P		te:		
				3-2024			
				endance Form	S:		
		N		ekly	of Units (Total)		
			umber of Credit Hours (To theoretical hours + 2 practi	,	. ,		
		2	-	of units (3)	nours) per week		
			Tumber	or units (3)			
		Cour	se administrator's name (m	ention all if n	nore than one name		
			ame: Lecture Dr. Imtithal			·)	
		1	Email: Edw.kaliome				
					1		
			Course	Objectives			
Course	Ohiec	tives		e e e e e e e e e e e e e e e e e e e	avior nature and h	abits of insect	
Course	oojee		the diversity of their me				
					n cold and hot regi		
			Identifying the morpholo		-		
				structu			
		T.	Teaching and L				
Strate	egy		-	anation and cl			
			2- Tł	ne method of t			
			4- Practical lessons	3- Student gro	-	rins	
		<u> </u>		Structure			
Week	Hr	Re	equired Learning Outcome	Unit or	Learning metho	Evaluation	
				subject nam	—	method	
		Int	roduction to the position o		Explanation and	Theoretica	
			insects	general	presentation of th	tests	
1 4			n the animal kingdom and	entomolog	slide model and	Practical tes	
	ſ	6	theories		lecture	Reports	
		of t	he emergence of insects ar				
	1		their importance Morphology of insects	Basics of	Explanation and	Theoretica	
2	4		worphology of insects	Dasies OI		Theoretica	

			general	presentation of	tests
			entomolog	the slide model	Practical tes
			0.	and lecture	Reports
3	4	The thorax and appendages	Basics of	Explanation and	
			general	presentation of	tests
			entomolog	the slide model a	Practical tes
			0.	lecture	Reports
4	4	The abdominal and appendag	Basics of	Explanation and	Theoretica
			general	presentation of	tests
			entomolog	the slide model	Practical tes
				and lecture	Reports
5	4	The first exam	Basics of	Explanation and	Theoretica
			general	presentation of	tests
			entomolog	the slide model	Practical tes
			υ.	and lecture	Reports
6	4	The Respiratory system	Basics of	Explanation and	Theoretica
			general	presentation of	tests
			entomolog	the slide model	Practical tes
				and lecture	Reports
7	4	The Digestive System	Basics of	Explanation and	Theoretica
			general	presentation of	tests
			entomolog	the slide model	Practical tes
				and lecture	Reports
8	4	The Excretory organs	Basics of	Explanation and	Theoretica
			general	presentation of	tests
			entomolog	the slide model	Practical tes
				and lecture	Reports
9	4	The Reproductive System	Basics of	Explanation and	Theoretica
			general	presentation of	tests
			entomolog	the slide model	Practical tes
				and lecture	Reports
10	4	The Nervous System	Basics of	Explanation and	Theoretica
			general	presentation of	tests
			entomolog	the slide model	Practical tes
				and lecture	Reports
11	4	The Circulatory System	Basics of	Explanation and	Theoretica
			general	presentation of	tests
			entomolog	the slide model	Practical tes
				and lecture	Reports
12	4	Sensory organs in insects	Basics of	Explanation and	Theoretica
			general	presentation	tests
			entomolog	Of the slide	Practical tes
				Model and	Reports

				lecture				
12								
13	4	Development & metamorphos		Explanation and	Theoretica			
			general	presentation of	tests			
			entomolog		Practical tes			
1.4				and lecture	Reports			
14	4	Classification of insects	Basics of	Explanation and	Theoretica			
			general	presentation of	tests			
			entomolog	the slide model	Practical tes			
				and lecture	Reports			
15	4	The second exam	Basics of	Explanation and	Theoretica			
			general	presentation of	tests			
			entomolog	the slide model	Practical tes			
				and lecture	Reports			
	Course Evaluation							
Distributing the score out if 100 according to the tasks assigned to the student such as daily								
		preparation, daily oral, monthly	y, or written ex	kams, reports,etc.				
	Monthly exams 25 marks							
		Daily preparation, daily	exams and rep	oorts 5 marks				
		Practical ex	kam: 10 marks					
		Strive 4	40 degrees					
Final	exan	n (45 marks for theoretical exam	n + 15 marks f	for practical exam)	= 60 marks			
		Learning and T	eaching Resou	irces				
Required	textb	books (curricular books, if any		General entomolog	<u>y</u>			
			Written by:	Hussein Abbas Al	-Ali, d. Nidal			
			-	Mahdi Al Fund				
			Practical Entomology Book					
			E	By Abdul Latif Mu	lan			
	Mai	in references (source)	Principle Of General Entomology					
	Pr. Bedir M. Al. A	zawi						
Recomme	ended	books and references (scienti						
	jo	ournals, reports)	Edition					
	Ũ	-	By P. J. Gullan & P.S. Cranston					
El	lectro	nic references, websites.	Use elect	tronic references an	d websites			

Course Descr	iption						
1. Course Name:							
Applied Entomology							
2. Course Code:							
EWB33	308						
Semester /	Year:						
Semest							
Description Prepa							
30-3-20							
Available Attend							
weekl Number of Credit Hours (Total							
2 theoretical hours + 2 practical							
Number of u							
Course administrator's name (ment	ion all if more than one name)						
Name: Lecture Dr. Imtithal Ism							
Email: Edw.kaliomer20							
Course Obj	ectives						
Course Objectives	Introducing students to the						
	shape, behavior, nature and						
	habits of insects, the diversity of their						
	members and their spread in all environments and various places						
	Recognizing the medical importance of						
	insect species through their presence on t						
	various previously mentioned places, an						
	what caused huge losses to agricultura						
	crops						
Teaching and Learn							
	, 2- Lecture method, 3- Student groups, 4						
	ne laboratory and scientific trips, Brainstorming						
5-	Dranstorning						
Course Str							
	or subjec Learning metho Evaluation						
Outcomes	ame method						
1							

		Introduction of	Applied	Explanation and	Theoretical
		Economic &	Entomology	presentation of the	tests
1	4	medical		slide model and	Practical test
1	4	entomology		lecture	Reports
		meaningimportanc			
		etc.			
	4	Important	Applied	Explanation and	Theoretical
2		economic insects in Ir	Entomology	presentation of t	tests
2				slide model and	Practical test
				lecture	Reports
3	4	Pest Control Method	Applied	Explanation and	Theoretical
			Entomology	presentation of t	tests
				slide model and	Practical test
				lecture	Reports
4	4	Methods of	Applied	Explanation and	Theoretical
		transmitting	Entomology	presentation of t	tests
		pathogenic		slide model and	Practical test
		microbes for		lecture	Reports
		humans and animals	A 11 1		T 1 1
5	4	Pulex types of	Applied	Explanation and	Theoretical
		medicinal and	Entomology	presentation of t	tests
		veterinary importanc		slide model and	Practical test
	4		A 1' 1	lecture	Reports
6	4	Culicidae family,	Applied		Theoretical ter
		types of Culex	Entomology		Practical test
		and			Reports
7	4	control methods	Applied	Explanation and	Theoretical
/	4	Annulatus types of medicinal and	Applied Entomology	Explanation and presentation of t	tests
		veterinary importanc	Linomology	slide model and	Practical test
		vetermary important		lecture	Reports
8	4	First month	Applied	Explanation and	Theoretical
0	т	exam	Entomology	presentation of t	tests
		UNUITI	Linomory	slide model and	Practical test
				lecture	Reports
9	4	Diptera order of	Applied	Explanation and	Theoretical
	•	medicinal	Entomology	presentation of th	tests
		and		slide model and	Practical test
		veterinary importanc		lecture	Reports
10	4	House fly, life	Applied	Explanation and	Theoretical
		cycle, types of fly	Entomology	presentation of the	tests
		and	27	slide model and	Practical test
		control methods		lecture	Reports

_									
Γ	11	4	Insecticides	A	Applied	Explanation and	Theoretical		
					tomology	-	tests		
					0.	slide model and	Practical test		
						lecture	Reports		
	12	4	Insects behavior	A	Applied		Theoretical		
				Ent	tomology		tests		
							Practical test		
							Reports		
	13	4	Social relationships	A	Applied	Explanation and	Theoretical		
			between insects	Ent	tomology	presentation of the	tests		
						slide model and	Practical test		
						lecture	Reports		
	14	4	Insect environment		Applied	Explanation	Theoretical		
				Ent	tomology	and presentation	tests		
						the slide model a	Practical test		
						lecture	Reports		
	15	4	Second month		Applied	Explanation and	Theoretical		
			exam	Ent	tomology	-	tests		
						slide model and	Practical test		
						lecture	Reports		
					aluation				
	Distribut	-	score out if 100 accordi	-		-	1		
		pre	paration, daily oral, mo	-		· •	etc.		
				•	ns 25 mar				
			Daily preparation, d						
					n: 10 mar	ks			
	D' 1				degrees	·	()		
	Final	exam (4	5 marks for theoretical	exam +	- 15 mark	s for practical exan	n = 60 marks		
			Learning ar	1					
	Require	d textbo	oks (curricular books,	if any)	-	cialization book Er			
					Protection - Theoretical medical and				
						veterinary ins			
					https://driv	e.google.com/file/d/1PC4z CEZpveERdF7/vz			
					Environmental Protection Specialization				
					Book - Practical Medical and Veterinary				
						Insects	5		
					https://drive.	google.com/file/d/1F8Pgp			
						UEgcJ8ue/viev	V		
ļ									
		Main	references (source)			ractical Medical Er	0.		
					В	y Pr. Dr. Abdul-lat	eet Molan		

Recommended books and references (scientifi	Fundamentals of medical and veterinary
journals, reports)	entomology
	Written by Prof. Dr.: Mr. Hassan Shorb
	Professor Zo, Head of Entomology
	Department, Faculty of Science - Cairo
	University 2013
Electronic references, websites.	Use electronic references and websites

Cours	Course Description						
1. Course Name:							
A	Animal Physiology						
2. Course Code:							
	WEB3312						
3. Semester / Year:							
	Semester						
4. Description Preparation Date:							
	30-3-2024						
5. Available Attendance Forms:	Waalday						
6. Number of Credit Hours (Total) /	Weekly Number of Units (Total)						
2 theoretical hours + 2 practical Number of units (3)							
7. Course administrator's name (mention all, if more than one name) Name: Nbaa Mutea Abid AL-Alh & Nuha Hatem Khalif Email: <u>naba.mutia@uoanbar.edu.iq</u> <u>nuha.tatem@uoanbar.edu.iq</u>							
8. Course Objectives							
9. Teaching and Learning Strategies							
Strategy	 Presenting the lecture through a meeting using the blackboard or projector (data show) - dialogue - group discussion - investigation and exploration - problem solving - scientific research - practical application in the laboratory - brainstorming. 						
	- 1						

Week	Hours	Required Learning	Unit or	Learning method	Evaluation
		Outcomes	subject		method
			name		
1	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Circulation physiology1	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tes Reports
2	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Circulation physiology2	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tes Reports
3	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Circulation physiology3	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tes Reports
4	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Respiratory physiology1	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tes Reports
5	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Respiratory physiology2	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tes Reports

6	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Regulation of body fluid or homeostasis	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tests Reports
7	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Physiology of kidney	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tests Reports
8	4		First month exam		Theoretical tests Practical tests Reports
9	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Digestive physiology1	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical te Practical tests Reports
10	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Digestive physiology2	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tests Reports
11	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Temperature regulation	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tests Reports

12	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	General energ metabolism	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tests Reports
13	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Nervous physiology	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tests Reports
14	4		second month exam		Theoretical tests Practical tests Reports
15	4	Explanation, lecture, and presentation of the material using the blackboard and projector. Conducting laboratory experiments, preparing reports, and discussing	Muscles physiology	Knowledge and understanding Ability to analyze Developing teaching skill solving problems Practical application skill	Theoretical tests Practical tests Reports
11. Cou	ırse Evalu	ation			
preparation Monthly ex Daily prepa Practical ex Strive 40 de	Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,etc. Monthly exams 25 marks Daily preparation, daily exams and reports 5 marks Practical exam: 10 marks Strive 40 degrees Final exam (45 marks for theoretical exam + 15 marks for practical exam) = 60 marks				
12. Lea	rning and	Teaching Resources			
Required te	Required textbooks (curricular books, if any) Youssef Muhammad Arab, Saba				Arab, Sabah
	Nasser Al-Alouji, Farouk Na				
	Karmasha, Marwan Abdel Rahir				
	Yas. Animal Physiology.1989				

Main references (source)	Guyton and Hall Textbook of medical physiology / John E. Hall & Michael E Hall , 14 edition,2016
Recommended books and references (scientific journals, reports)	Principle of anatomy and physiology / Derrickson, Bryan H., Tortora, Gerard j.2017 * Animal physiology .Richard W Hill, Gordon A.Wyse, Margaret Anderson . 2016
Electronic references, websites.	Use electronic references and websites

1. Course	Name:				
Genetics 1					
2. Course	Code:				
EWB3303					
3. Semeste	er / Year:				
First Seme	ster / 2024				
4. Descrip	tion Preparation Date:				
– Adding n	ew sciences for students for fu	ture benefit			
- Keeping	pace with scientific development	nt			
- The stud	ent knows the basic principle o	f genetics			
	e Attendance Forms:				
Attenda	nce in classrooms				
	of Credit Hours (Total) / Numb	er of Units (Total)			
	retical/2				
50 1100					
7. Course	administrator's name (mention	on all, if more than one name)			
	Assist. Prof. Dr. Omar Ismail Ha	· /			
ag.omar	<u>.hazym@uoanbar.edu.iq</u>				
-	ssisi. Prof. Dr. Hadeel Abdelel	ah Abdel Razaag			
	el aldaraji@uoanbar.edu.iq	•			
8. Course	Objectives				
Course Objective	S	 Adding new sciences for students 			
		future benefit			
		 Keeping pace with scientific development 			
		development • The student knows the basic			
		principle of genetics •			
9. Teaching	g and Learning Strategies				
Strategy	Student activities				
	Legends				
Daily exams					
	Reports				
	Discussions during the le				

Week	Hours	Required Learning Outcomes	Unit or	Learning	Evaluation
			subject name	method	method
1	2	Adding a new scientific aspect + cognitive objectiv	Genetics	Theoretical demonstrat	Daily exams
2	2	Adding a new scientific aspect + cognitive objectiv	Genetic Mendelian	Theoretical + demonstration	Daily exams
3	2	Adding a new scientific aspect + cognitive objectives	Genetic Mendelian	Theoretical + demonstration	Daily exams
4	2	Adding a new scientific aspect + cognitive objectiv	Deviations from Mendel's first law	Theoretical + demonstration	Daily exams
5	2	Adding a new scientific aspect + cognitive objectiv	Penetrance & expressivity	Theoretical + demonstration	Daily exams
6	2	Adding a new scient aspect + cognitive objectiv	First month		
7	2	Adding a new scientific aspe + cognitive objectives	Epistasis	Theoretical + demonstration	Daily exams
8	2	Adding a new scientific aspect cognitive objectives	Epistasis	Theoretical + demonstration	Daily exams
9	2	Adding a new scientific aspe + cognitive objectives	Multiple alleles	Theoretical + demonstration	Daily exams
10	2	Adding a new scientific aspe + cognitive objectives	Multiple alleles	Theoretical + demonstration	Daily exams
11	2	Adding a new scientific aspect + cognitive objectives	Quantitative traits	Theoretical + demonstration	Daily exams
12	2	Adding a new scientific aspe + cognitive objectives	Heritability	Theoretical + demonstration	Daily exams
13	2	Adding a new scientific aspe + cognitive objectives	Sex determination	Theoretical + demonstration	Daily exams
14	2	Adding a new scientific aspe + cognitive objectives	Sex limited traits	Theoretical + demonstration	Daily exams
15	2	Adding a new scientific asp + cognitive objectives	Second month exam		

Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Basics of genetics, introduction human genetics
Main references (source)	Jenna Smith, The Post-Genomic E Jenna Smith, The Post-Genomic Era
Recommended books and references (scientific	
journals, reports)	
Electronic references, websites.	

1. Course Name:

Microscopes preparation

2. Course Code

: EWB3307

3. Semester / Year:

semester / second year

4. Description Preparation Date: second

30/3/ 2024

5. Available Attendance Forms:

Weekly

6. Number of Credit Hours (Total) / Number of Units (Total)

3 hours theoretical / 2 units

7. Course administrator's name (mention all, if more than one name) Name: Hebatallah adel abdullah

Email: Hebatallah85@uoanbar.edu.iq

8. Course Objectives

Course Objectives	Introduse students to the type of tissue that make up the body of an organism
-	How to obtain plant and animal samples.
	Examine the steps involved in routine histological microscopy preparation
	Installation, its importance and materials used
	Follow all the sequential steps to staining ,loading and microscope

9. Teaching and Learning Strategies

Strategy

Learning Outcomes, Teaching, Learning and Assessment Methode

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
The first 2 3	4	Tissue components of livingorganism theoretical lectur Daily test How to samples,installatio ,its character importance and type of stabilized		Daily t	

1

4 5	advantages and disadvata Microscopic preparatior		
6	Washing ,materials used and t		
7	requird Microscopic preparatior		
	Monthly exam Clarification		
	importance,mateerials used in and imperegnation		
	First month exam		
	Dyeing and loading examina		
	under a microscope distinguishing histological sectio		
0	Siloden technology and free:		
8	technology electron microsc Second month exam		
10			
11			
	ne score out if 100 according to the task aily oral, monthly, or written exams, repo		
) daily oral 10 written exams10 reports	JI 15,Etc.	
	g and Teaching Resources		
Required textb	ooks (curricular books, if any)	Textbook of Textile Technology	
		Professor Dr. Nouri bin Taher	
		Tayeb	
Main reference	s (source)	Microscopic preparation	
Recommended reports)	books and references (scientific journals,	Practical obligation	
Electronic references, websites.		Online educational lectures	



1. Course Name:

Plant classification

2. Course Code

EWB3310

3. Semester / Year:

2023-2024

4. Description Preparation Date:

29\3\2014

5. Available Attendance Forms:

Student attendance in the halls

6. Number of Credit Hours (Total) / Number of Units (Total) 32\2

7. Course administrator's name (mention all, if more than one name) Name: Prof. Dr. Ashwaq Talib Hameed Email: ashwaq.talib@uoanbar.edu.iq

8. Course Objectives

ourse Objectives	•
	Enhancing understanding of biodive
	Students learn about the diversity of plan
	and its importance to ecosystems.
	Develop scientific and research skills
	provide a basis for studying pl
	scientifically, including determining
	identity, anatomy, and evolutio
	relationships.
	Promoting conservation awaren
	Knowledge of plant diversity is critica
	conservation efforts and understan
	environmental impacts.
	Support agricultural and horticul
	applications: Helps improve yields,
	control and sustainable agricultural practic
	Building analytical thinking: Encour
	critical thinking and problem solving thr
	observation and classification.

				To prepare for advanced studies: serves foundational knowledge base for f academic endeavors in biology and r fields		
9. Teaching a		ning Strategies				
trategy	-Fiel plan	tures and educational j d trips to forests and ts		• •	-	
0. Course Stru Week	cture Hours	Required Learning	Unit or	Learning	Evaluation	
		Outcomes	subject name	method	method	
first second third fourth Fifth Sixteen Seventh Eighteen Ninth The tenth The eleven twelveth Thirteenth fourteenth Fifteenth	2	Definition of taxonomy The importance of taxonom and its relationship to other sciences Plant classification systems Nomenclature and diagnosi Collecting plants and pressing them Monocot family First month exam The Najili and Saadian famil Anatomical classification Chemical classification Chemical classification Scientific and general nomenclature Plantain family The family of the goose mar and the pomegranate Composite and cruciferous family	plant species	Theoretical lectu = = = Theoretical exam Theoretical lectu = = = = = =	Daily cuz = = = = = Paper exam Daily cuz = = = =	
		Second month exaM			Paper exam	
0	core out i	f 100 according to the tas thly, or written exams, rep	0		such as dail	

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Plant taxonomy - Dr. Ali Hussein Al-Moussawi
Main references (source)	Plant Morphology Book - Dr. Ashwaq Talib Hameed
Recommended books and references (scientific	
journals, reports)	
Electronic references, websites.	

- 1. Course Name:
- Plant Morphology
 - 2. Course Code:

EWB3306

3. Semester / Year:

2023-2024

4. Description Preparation Date:

29\3\2024

5. Available Attendance Forms:

Presence in the halls

- 6. Number of Credit Hours (Total) / Number of Units (Total)
 32\2
- 7. Course administrator's name (mention all, if more than one name) Name: Prof. Dr.Ashwaq Talib Hameed Email: ashwaq.talib@uoanbar.edu.iq

8. Course Objectives

b	· · j · · ·	
Course Objectiv	/es	Understanding plant form and function: To provide students with an depth understanding of the form (morphology) and function (physiolo of plants, including the study of plant organs such as roots, ster leaves, flowers and fruits, and how these structures adapt to the environment. • Identification skills: to develop the ability to identify and classify pla based on their morphological traits. This includes learning how to the keys and clues to identify plants, which is essential for fieldwork, resea and ecological studies. • Evolutionary Insights: To gain insights into the evolution of plant for and structure over time, and to understand how morphological adaptation have enabled plants to colonize a wide range of habitats on Earth
9. Teachi	ng and I	Learning Strategies
Strategy	and pr interp	l Thinking and Problem Solving: To develop critical thinkin oblem-solving skills by analyzing morphological data, reting patterns of plant evolution, and understanding the ve significance of plant structures.

Communication Skills: To enhance communication skills through accurate description and documentation of plant morphology, enabling effective sharing of knowledge with peers, professionals and the public.

Appreciation of Plant Diversity*: To foster appreciation of the gre diversity of plant forms and the aesthetic value of plants, and foster interest in plant observation, horticulture and conservati as lifelong pursuits.

10. Course Structure

Week	Hours	Required	Unit or	Learning method	Evaluation
WEEK	nours	-		Learning method	
		Learning	subject name		method
		Outcomes			
the first second the third the four Fifth Sixth Seventh Eighth Ninth The tent The eleven twelveth Thirteer		Definition of morphology The importance of morphology and its relationship to oth sciences Description of root and their types Description of plan leaves and their typ Variations of plant leaves Leaf mutations First month exam Description of plan stems Stem mutations		Theoretical lecture = = = = = Theoretical exam = = =	Daily cuz = = = = = Paper exam Daily cuz = = = = = =
fourteer Fifteent		Earthen stems Flowers Types of flowers ar their shapes Plant flower mutations Fruits and seeds Second month exa		= = = Theoretical exam	= Paper exam
11. Co	ourse Ev	aluation			

Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources	3
Required textbooks (curricular books, if any)	Classification plant by Dr. Ali Hussein Al-Moussawi
Main references (source)	Plant morphology.D. Ashwaq Taleb Hameed
Recommended books and references	
(scientific journals, reports)	
Electronic references, websites.	

		Cou	rse Description	n	
1.	Course Name:				
		comparative ar	natomy of chordate		
2.			ourse Code:		
			/B3301		
3.	Semester / Year	•			
4	Description Dra	nonotion Dotos	Semester		
4.	Description Pre		30\3\2024		
5.	Available Atten	dance Forms:			
			Weekly		
6.		lit Hours (Total) / Number of U			
	2 theoretical no Number of units	urs + 2 practical hours = (4 hours) s (3)	rs) per week		
7.	Course adminis	trator's name (mention all, if mo	ore than one name)		
	Name: Hanan F				
	Email: hanan. fa	awzi@uoanbae.edu.iq			
8.	Course Objectiv	VAS			
Course 9. Strateg	y 1- lal	earning Strategies Explanation and clarification, 2 boratory and scientific trips, Brainstorming	2- Lecture method, 3-	 phyla included in chordates Students learned between animals thro and comparison of the In addition to studyin of animal groups Introducing students characteristics and chordates 	the classification about compari- ough internal anato- ir systems and organg all types and organist to the most impor characteristics
10. C	Course Structure				
	Veek Hours	1 8	Unit or subject	Learning method	Evaluation
	1 4	Outcomes General features chordata	name chordata	Explanation presentation the slide mo and lecture	method Theoretical tests Practical tests Repor ts

2	4	group of vertebrates	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
3	4	Chordata classificat	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
4	4	Skin system	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
5	4	Skeletal system	Chordat	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
6	4	First month exam	chordata		Theoretical tests Practical tests Reports
7	4	Nerves system	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests
8	4	Digestive system	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
9	4	Circulation of syste	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
10	4	Pulmantory systrm	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
11	4	Muscular system	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
12	4	econd month exam	chordata		Theoretical tests Practical tests Reports
13	4	excretory system	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests
14	4	Reproductive system	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
15	4	Sense organs	chordata	Explanation presentation the slide mo and lecture	Theoretical tests Practical tests Reports
11. Course E	Evaluation	n	I		

Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

Monthly exams 25 marks Daily preparation, daily exams and reports 5 marks Practical exam: 10 marks Strive 40 degrees Final exam (45 marks for theoretical exam + 15 marks for practical exam) = 60 marks

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	-Basics of comparative anatomy of chordates / wri
	by Shukri Habib Khalil, Abdul Zahra Kazem
Main references (source)	Book: Comparative Anatomy of Vertebrates Wri
	by: Dr. Mona Farid Abdel Rahman
Recommended books and references (scientific journals,	Atlas of comparative anatomy of chordates
reports)	
Electronic references, websites.	Use electronic references and websites

			Courses	Description		
1. (Course N	Name:				
I	Headway	/ Plus I	ntermediate			
2. 0	Course C	Code:				
3. 5	Semester	r / Yea	r:			
	Semeste	r				
4.]	Descript	ion Pre	paration Date:			
28	3/٣/2024					
5. 4	Availabl	e Atter	dance Forms:			
	Attendar	nce in c	lassrooms			
6. I	Number	of Cre	dit Hours (Total) /	Number of Units (7	Fotal)	
	30 hours	/ 15 u	nits			
7. (Course a	dminis	trator's name (men	tion all, if more that	in one nam	e)
]	Name: P	rof.Dr.	Ali Sabah Jameel			
]	Email: al	lisabah	40@uoanbar.edu.i	q		
8. (Course (Objecti	ves			
			 developing a The ability to Understand concepts. Analyze text Forming a 	anguage skills, m cognitive vocabulary s use multiple types of t written materials, ar to divide information i coherent cognitive n a specific field	store. reading. nd distingui nto parts.	
9. 7	Teaching	g and L	earning Strategies			
Strate				, and using technol	logy tool.	
10. Co	ourse Sti	ructure				
Week	Hours	Requir	ed Learning Outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	2		tioned in item 8	It's wonderful world.		
2	2		tioned in item 8	Get Happy.		
3	2		tioned in item 8	Telling Tales.		
4	2	As men	tioned in item 8	Review Units 1, 2, and 3.		
5	2	As mer	tioned in item 8	Doing the Right Thing.		
6	2	As mer	tioned in item 8	On the Move.		

7	2	As mentioned in item 8	Just Love it.	
8	2	As mentioned in item 8	Mid-Term Exam	
9	2	As mentioned in item 8	The world of Work.	
10	2	As mentioned in item 8	Just Imagine!	
11	2	As mentioned in item 8	Getting on Together.	
12	2	As mentioned in item 8	Obsessions.	
13	2	As mentioned in item 8	Tell me about It!	
14	2	As mentioned in item 8	Life's Great Events!	
15	2	As mentioned in item 8	Review Units 7 -12.	
11.	Course I	Evaluation		
	aluation p llotted 60	process consisted of 2 mid-te marks.	erm exams allotted 4	40 marks, and summative
12.Le	earning a	and Teaching Resources		
Require	d textboo	ks (curricular books, if any)	Headway Plus Ir	ntermediate.
Main re	ferences (source)	-	
	nended bo	books and references (scientific		

journals, reports...) Electronic references, websites.

1. Course Name:

Molecular Biology

2. Course Code:

EWB3406

3. Semester / Year:

1st Semester

4. Description Preparation Date:

6/4/2024

5. Available Attendance Forms:

Personal, weekly

- 6. Number of Credit Hours (Total) / Number of Units (Total)
 - 48
- 7. Course administrator's name (mention all, if more than one name) Name: Assist. Prof. Dr. Mohammed Abbas Jasim Email: mohammed.a.jasim@uoanbar.edu.iq

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8. Course Objectives

<u> </u>					
Course	Obj	ective	es		

- 9. Teaching and Learning Strategies
- Strategy
 - Lectures.
 - Educational videos.
 - Self-learning method (assigning students to complete learning some skills after giving them the basics).

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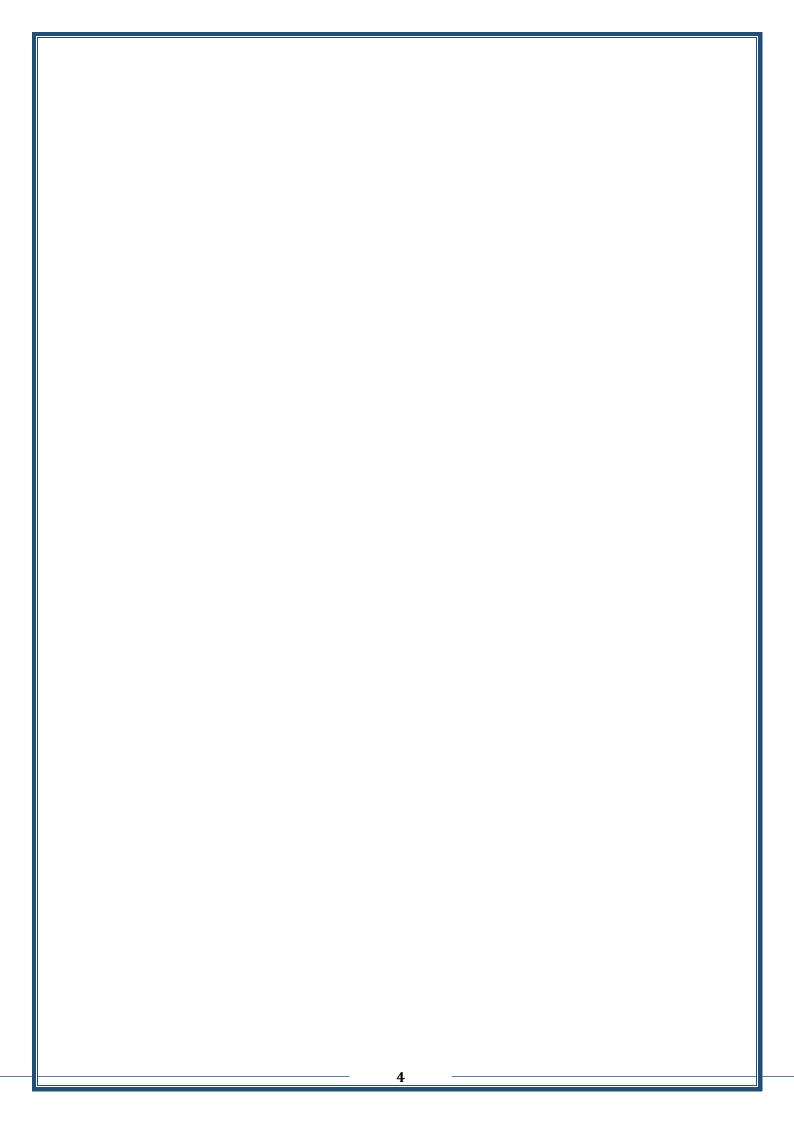
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- Scientific Labs.
- Virtual labs
- Discussions
- Brainstorming
- 10. Course Structure

 Week
 Hours
 Required Learning
 Unit or subject
 Learning
 Evaluation

		Outcomes	name	method	method
1	4	Learning and	Genetic	Theoretical	- Monthly
2	4	thinking	materials	teaching	exams
3	4	Molecular	Structure	Practical	- Written
4	4	biology	DNA	teaching	and oral
5	4	concepts	Replication	Virtual labs	quizzes
6	4	Understanding	DNA	Learning	1
7	4	and	Replication II:	groups	
8	4	imagination	The Mechanism	0	
9	4	Connecting	of		
10	4	theoretical and li	Transcription		
11	4	applications	in Bacteria		
12	4	Analyzing of thos	Operons		
13	4	connections			
14	4	Explaining	DNA-Protein		
		thoughts	Interactions in		
			Bacteria		
			Eukaryotic RNA		
			Polymerases		
			and Their		
			Promoters		
			General		
			Transcription		
			Factors in		
			Eukaryotes		
			Transcription		
			Activators		
			in Eukaryotes		
			Chromatin		
			Structure		
			and Its Effects		
			on Tasaa a saisa ti sa		
			Transcription		
			RNA Processing		
			I: Seali sin s		
			Splicing		
			RNA Processing		
			II:		
			Capping and Polyadenylatio n Other RNA Processing		

5 15 20 40 60 100 12. Learning and Teaching Resources Required textbooks (curricular books, if any) - Molecular biology, Robert F. Weaver 2017				Fuent	-0	<u> </u>					
Image: Second state of the student such as daily preparation, daily oral, monthly, or written exams, reports,etc. Final Exam Final Second Seco						Deat					
Control of Gene Expression The Mechanism of Translation I: Initiation The Mechanism of Translation II: Elongation and Termination Ribosomes and Transfer RNA 11. Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,etc. Quizzes Laboratory 15 Laboratory Term Tests Semester Final Exam 5 15 20 40 60 100 12. Learning and Teaching Resources Required textbooks (curricular books, if any) - Molecular biology, Robert F. Weaver 2017 Main references (source) - Molecular biology, Nashaat G. Mostafa, 2018 - Molecular biology, Abbas Recommended books and references (scientific journals, reports) - Molecular biology, Abbas											
of Gene Expression The Mechanism of Translation I: Initiation Initiation The Mechanism of Translation I: Initiation Initiation The Mechanism of Translation II: Elongation and Termination Ribosomes and Transfer RNA Termination 11. Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,etc. Quizzes Laboratory Term Tests semester 5 15 20 40 60 100 12. Learning and Teaching Resources - Weaver 2017 Main references (source) - Molecular biology, Robert F. Weaver 2017 - Molecular biology, Nashaat G. Mostafa, 2018 - Molecular biology, Abbas A. AlJanabi 2013 Recommended books and references (scientific journals, reports) U -					-	Jiiai					
Expression The Mechanism of Translation I: Initiation Initiation The Mechanism of Translation II: Elongation and Termination Bistributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,etc. Quizzes Laboratory 5 15 20 40 60 100 12. Learning and Teaching Resources Required textbooks (curricular books, if any) - Molecular biology, Robert F. Weaver 2017 Main references (source) - Molecular biology, Nashaat G. Mostafa, 2018 - Molecular biology, Abbas A. AlJanabi 2013						20100					
Image: The Mechanism of Translation I: Initiation The Mechanism of Translation II: Elongation and Termination Ribosomes and Transfer RNA 11. Distributing the score out if 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,etc. Quizzes Laboratory Term Tests semester Final Exam Final 5 15 20 40 60 100 12. Learning and Teaching Resources Final Exam Final Required textbooks (curricular books, if any) - Molecular biology, Robert F. Weaver 2017 - Molecular biology, Nashaat G. Mostafa, 2018 Main references (source) - Molecular biology, Abbas A. AlJanabi 2013 Recommended books and references (scientific journals, reports) Image: Content of the tasks account of the tasks ac						Jelle					
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Quizzes Laboratory Term Tests semester Final Exam Final 5 15 20 40 60 100 12. Learning and Teaching Resources Required textbooks (curricular books, if any) - Molecular biology, Robert F. Weaver 2017 Main references (source) - Molecular biology, Nashaat G. Mostafa, 2018 - Molecular biology, Abbas A. AlJanabi 2013 Recommended books and references (scientific journals, reports)	-			-			-		e stu	dent su	ch as
5 15 20 40 60 100 12. Learning and Teaching Resources Required textbooks (curricular books, if any) - Molecular biology, Robert F. Weaver 2017 Main references (source) - Molecular biology, Nashaat G. Mostafa, 2018 - Molecular biology, Abbas A. AlJanabi 2013 Recommended books and references (scientific journals, reports)	ually prepar			viitteii	c c anns	, report	.3,				
12. Learning and Teaching Resources Required textbooks (curricular books, if any) - Molecular biology, Robert F. Weaver 2017 Main references (source) - Molecular biology, Nashaat G. Mostafa, 2018 - Molecular biology, Abbas A. AlJanabi 2013 Recommended books and references (scientific journals, reports) Recommended books and references (scientific lour biology)	Quizzes	Laboratory	Term Tests	sem	nester	Final	Exar	n	Fina	al	
Required textbooks (curricular books, if any) - Molecular biology, Robert F. Weaver 2017 - Molecular biology, Nashaat G. Main references (source) - Molecular biology, Nashaat G. Mostafa, 2018 - Molecular biology, Abbas A. AlJanabi 2013 - Molecular biology, Abbas A.	5	15	20	4	0	6	0		100)	
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Main references (source) - Molecular biology, Nashaat G. Mostafa, 2018 - Molecular biology, Abbas A. AlJanabi 2013 AlJanabi 2013	Required tex	tbooks (curricu	llar books, if any	/)	- Mole	ecular b	oiolo	gy, R	lober	rt F.	
Mostafa, 2018 - Molecular biology, Abbas A. AlJanabi 2013 Recommended books and references (scientific journals, reports)				,	Weave	er 2017	7				
- Molecular biology, Abbas A. AlJanabi 2013 Recommended books and references (scientific journals, reports)	Main references (source)				- Mole	ecular b	oiolo	gy, N	Jasha	aat G.	
AlJanabi 2013 Recommended books and references (scientific journals, reports)					Mosta	fa, 201	8				
Recommended books and references (scientific journals, reports)								oiolog	gy,	Abbas	Α.
journals, reports)					AlJana	abi 201	3				
	Recommend	ed books and	references (scie	entific							
	journals, rep	orts…)									
		,	tes								



		Course Description		
1. Course Name): :			
		Ecology		
2. Course Code:				
		qe27ywb		
3. Semester / Y	ear:			
		Semester		I
4. Description F	reparation	Date:		
		30-3-2024		
5. Available Atte	endance For	ms:		
		weekly		
		(Total) / Number of Units (Total)		-
2 theoretical Number of u	-	oractical hours = (4 hours) per week		
7. Course adm	inistrator's	name (mention all, if more than one na	ame)	
Name: Assist	.Prof. Dr. M	ohammed musleh &berka hmood		
<u>mohammed</u>	<u>.musleh@ı</u>	uoanbar.edu.iq		
8. Course Objec	tives			
Course Objectives	11000			-
_	ent to the pr	rinciples of ecology and the relationship o	fliving	
	-	omponents and the effect of each factor on	-	
Learn about the di	ifferent types	s of ecosystem.		
Learn about living	; environme	ntal factors.		
C Teaching and	Leomina S	· . (·		
9. Teaching and			1 1 2 6	-
Strategy		 Explanation and clarification, 2- Lectur ractical lessons in the laboratory and sc 		IQ 5
		- Brainstorming	lenunc urps,	
	-	Dramstorming		
				_
10. Course Structur	e			
Week	Hours	Required Learning Outcomes	Unit or	l
WEEK			subject name	
Week				
1	4	A brief history of ecology	Ecology	1

2	4	The foundation of the division of ecology	Ecology
3	4	Ecosystem	Ecology
4	4	Primary Division - its characteristics And its classification	Ecology
5	4	tolerance laws and limiting factors	Ecology
6	4	First month exam	Ecology
7	4	Productivity	Ecology
8	4	Food chin	Ecology
9	4	Nets chin	Ecology
10	4	Energy of pyramids	Ecology
11	4	population	Ecology
12	4	Second month exam	Ecology
13	4	Environmental suc cession	Ecology

14	4	Environmental factor	Ecology	Ex
				re ne
				nc
15	4	Species divergence	Ecology	lx re
				ne ne
11. Course Ev		according to the tasks assigned to the stud		
or written exams,				
vionum exams 25				
Daily preparation,	, daily exams a	nd reports 5 marks		
Daily preparation, Practical exam: 10	, daily exams a	and reports 5 marks		
Daily preparation, Practical exam: 10 Strive 40 degrees	, daily exams a) marks		= 60 marks	
Practical exam: 10 Strive 40 degrees	, daily exams a) marks	nd reports 5 marks tical exam + 15 marks for practical exam) =	= 60 marks	
Daily preparation, Practical exam: 10 Strive 40 degrees	, daily exams a) marks rks for theore	tical exam + 15 marks for practical exam) =	= 60 marks	
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma	, daily exams a) marks rks for theore	tical exam + 15 marks for practical exam) =	Al-rav	
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma	, daily exams a) marks rks for theore	tical exam + 15 marks for practical exam) =	Al-rav and A	b
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma	, daily exams a) marks rks for theore	tical exam + 15 marks for practical exam) =	Al-rav and A ashee	b 1 (1
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma	, daily exams a) marks rks for theore	tical exam + 15 marks for practical exam) =	Al-rav and A ashee pollut	b 1 (1 0 1
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma 12. Learning a	, daily exams a marks orks for theore and Teaching	tical exam + 15 marks for practical exam) =	Al-ray and A ashee pollut Bagho	b) 1 (1 1 01 1 10
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma 12. Learning a	, daily exams a marks orks for theore and Teaching	tical exam + 15 marks for practical exam) =	Al-rav and A ashee pollut Bagho Al-rav	b 1 (1 2 1 <u>10</u> 1 10
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma 12. Learning a	, daily exams a marks orks for theore and Teaching	tical exam + 15 marks for practical exam) =	Al-ray and A ashee pollut Bagho Al-ray and A	b 1 (1 2) 1 <u>1 (</u> 1 <u>1 (</u> 1) 1) 1)
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma 12. Learning a	, daily exams a marks orks for theore and Teaching	tical exam + 15 marks for practical exam) =	Al-rav and A ashee pollut Bagho Al-rav and A ashee	
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma 12. Learning a	, daily exams a marks orks for theore and Teaching	tical exam + 15 marks for practical exam) =	Al-ray and A ashee pollut Bagho Al-ray and A ashee pollut) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma 12. Learning a	, daily exams a marks orks for theore and Teaching	tical exam + 15 marks for practical exam) =	Al-rav and A ashee pollut Bagho Al-rav and A ashee	
Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma 12. Learning a	, daily exams a marks arks for theore and Teaching ource)	tical exam + 15 marks for practical exam) = Resources	Al-rav and A ashee pollut Bagho Al-rav and A ashee pollut Bagho	

	Course Description
1. Course Name:	
	Ecology
2. Course Code:	
	qe27ywb
3. Semester / Year:	
	Semester
4. Description Prepa	aration Date:
	30-3-2024
5. Available Attenda	nce Forms:
	weekly
	Hours (Total) / Number of Units (Total)
2 theoretical hou Number of units (rs + 2 practical hours = (4 hours) per week (3)
	rator's name (mention all, if more than one name)
	f. Dr. Mohammed musleh &berka hmood
mohammed.mu	<u>sleh@uoanbar.edu.iq</u>
8. Course Objectives	
ourse Objectives	
Introduction the stud how to treat than	lent to the sources of pollution and thi3r danger to humans and
	nental pollution of all kinds knowing source and to how to treat
	on substance or energy and the extent of its impact.
_	s of pollution of all kinds and their impact on humans.
9. Teaching and Lea	
itrategy	 1- Explanation and clarification, 2- Lecture method, 3- Stud lessons in the laboratory and scientific trips, 5- Brainstorming
	I

Week	Hours	Required Learning Outcomes	Unit or su
			name
		Abrief history of pollution	Environmenta
1	4		pollution
	4	Effects of Environmental pollution	Environmenta
2			pollution
3	4	Air pollution	Environmenta pollution
4	4	Noise pollution	Enviro
5	4	Radiation pollution	Enviro
6	4	First month exam	Enviro
7	4	Water pollution	Enviro
8	4	Food contamination	Enviro
9	4	Microbiology contamination	Enviro
10	4	Soil pollution	Enviro

11	4	The ozone	Envirc ame I ollu
12	4	Second month exam	Envirc ame J ollu
13	4	Global warming	Envirc 1me 1 ollu
14	4	Drug contamination	Envirc ame I ollu
15	4	Global pollution	Envirc 1me polluti 9n
11. Course Ev	valuation		
Distributing the sc exams, reports,et Monthly exams 25 Daily preparation, Practical exam: 10 Strive 40 degrees Final exam (45 ma	ore out if 100 a tc. marks daily exams a marks marks	according to the tasks assigned to the studen nd reports 5 marks ical exam + 15 marks for practical exam) = 6	
12. Learning a	and Leaching	Resources	Al-: aw Abl alr ash eer pol uti
Main references (so	ource)		Al-: aw Abl alr ash eer pol uti

Recommended books and references (scientific journals, reports)	Ob: cur
Electronic references, websites.	Use e
	websit

1. Co	urse Nai	me:				
		a	pplied ba	acteria		
2. Co	urse Coo	de:				
			EWB3	403		
3. Ser	nester /	'Year:				
			Semes	ter		
4. Des	scriptio	n Preparation Date	•			
	p		30-3-2	024		
5 Av	ailable A	Attendance Forms:	0002	<u> </u>		
J. 11V			147	eekly		
6 Mu	mbor of	Credit Hours (Total)		<i>.</i>	Total)	
		, ,			, ,	
		cal hours + 2 practio	cal nours	s = (4 nours)	J per weeк	
Nu	mber of	units (3)				
			1			
		ministrator's name				name)
		ist.Prof. Dr.afaa tali			ed ghani	
Em	ail: waf	-tal-1982@uoanb	ar.edu.i	q		
8. Co	urse Obj	ectives				
Course Obj	ectives			Identify the	e most importa	nt bacteria tha
				live within their environment in nature,		
				such as air bacteria, water bacteria, food		
				bacteria, soil bacteria, as well as medica		
				bacteria and industrial bacteria, and stu		
				their characteristics and the most		
				important a	activities in that	t environment
9 Tea	aching a	nd Learning Strategi	es	p 01 00000 0		
Strategy	Ē	Explanation and cl		on 2-Lectu	re method 3-	Student
87		oups, 4- Practical				
	-	-	16220112	III LITE IADOI	atory and sele	entine trips,
	5-	Brainstorming				
10 0		4				
10. Cour	-		TT •4		T	E (*
Week	Hours	Required Learning Outcomes		or subject ame	Learning method	Evaluation method
		Introduction and	Applied ba		Explanation	Theoretical test
		definition of applied		== ===	presentation of	
1	2	bacteriology			slide model	Reports
					lecture	L
	2	Introduction and	Applied ba	cteria	Explanation	Theoretical test
2		definition of applied			presentation of	Practical tests
		bacteriology			slide model	Reports

				lecture	
3	2	air bacteria	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical tes Practical tests Reports
4	2	water bacteria	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
5	2	Use of bacteria as an indicator of fecal Use of bacteria as an indicator of fecal contamination of water	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical tess Practical tests Reports
6	2	sewage bacteria	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical tess Practical tests Reports
7	2	Food bacteria (meat	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical tess Practical tests Reports
8	2	Food bacteria (milk	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
9	2	First mounth exam	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
10	2	soil bacteria	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical tess Practical tests Reports
11	2	Bacteria that contribute to nitrogen solvation in nature	Applied bacteria	Explanation a presentation of slide model a lecture	Theoretical tess Practical tests Reports
12	2	Second month exam	Applied bacteria		Theoretical tess Practical tests Reports
13	2	Industrial bacteria	Applied bacteria 1	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
14	2	Some industries in which industrial bacteria contribute	Invertebrates 1	Explanation a presentation of slide model a lecture	Theoretical tess Practical tests Reports

15	4	Medical bacteria	Invertebrates 1	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
11.Cour					
preparatio Monthly en Daily prep Practical e Strive 40 d	n, daily o xams 25 1 aration, o xam: 10 1 legrees	daily exams and report	n exams, reports,etc. ts 5 marks		
12.Leari	ning and	Teaching Resources	}		
		Teaching Resources	7) Dr Al-Zaidi, Ham (theoretical), Minis	nid Majeed. (2000). stry of Higher Educa n, University of Bag	Microbiology ation and
	extbooks (curricular books, if any	7) Dr Al-Zaidi, Ham (theoretical), Minis	stry of Higher Educ	Microbiology ation and
Required te Main refere	extbooks (ences (sou ded bool	curricular books, if any	7) Dr Al-Zaidi, Ham (theoretical), Minis Scientific Research	stry of Higher Educ	Microbiology ation and

une cel		
• • Introducing students to the role of immune cell in resisting diseases		
• And learn about the mechanical mechanisms of i		
workAs well as the importance of immunity in our date		
lives and how the body responds when a foreign		
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3	4	Acquired and inr immunity	Immunity	Explanation presentation of	Theoretical test Practical tests
				slide model a lecture	Reports
4	4	Antibodies, their ty and functions	Immunity	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
5	4	Antigens	Immunity	Explanation a presentation of slide model a lecture	Theoretical tests Practical tests Reports
6	4	First month exam	Immunity		Theoretical test Practical tests Reports
7	4	Immune receptors	Immunity	Explanation a presentation of slide model a lecture	Reports
8	4	Immune response	Immunity	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
9	4	Complementary system	Immunity	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
10	4	Serums, vaccines, and methods of manufacturing them	Immunity	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
11	4	Inflammation infection, their types symptoms	Immunity	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
12	4	Second month exam	Immunity		Theoretical test Practical tests Reports
13	4	Allergies	Immunity	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
14	4	Immunodeficiency diseases	Immunity	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports
15	4	Autoimmune diseases	Immunity	Explanation a presentation of slide model a lecture	Theoretical test Practical tests Reports

11.Course Evaluation	
-	ing to the tasks assigned to the student such as daily
preparation, daily oral, monthly, or writt	en exams, reports,etc.
Monthly exams 25 marks	rta 5 montra
Daily preparation, daily exams and repo Practical exam: 10 marks	rts 5 marks
Strive 40 degrees	
8	m + 15 marks for practical exam) = 60 marks
Thui caun (+e murks for theoreticul cau	m + 10 marks for practical champ = 00 marks
12.Learning and Teaching Resource	es
Required textbooks (curricular books, if an	ny) LIppincotts IIIIustrated Reviews- Richard Hari
Main references (source)	Basic science principles and immunological tes
	James Abdel Dehmen Eurodementels of abusic
	James Abdel Rahman Fundamentals of physic
	Mohamed Abdel Aziz
Recommended books and references (sc	Mohamed Abdel AzizcientificCellular and Molecular Immunology - Paul a
Recommended books and references (so journals, reports)	Mohamed Abdel Aziz
× ×	Mohamed Abdel Aziz cientific Cellular and Molecular Immunology - Paul : Andrew H. Lichtman
× ×	Mohamed Abdel AzizcientificCellular and Molecular Immunology - Paul a
× ×	Mohamed Abdel Aziz cientific Cellular and Molecular Immunology - Paul a Andrew H. Lichtman

	Course Desc	ription	
1. Course Na	me:		
Cellular metabolis	m		
2. Course Coo	le:		
EWB3407			
3. Semester /			
First course ۲۰۲٤	/		
	n Preparation Date:		
2024/3/29	Attendance Forms:		
weekly	Attendance Porms.		
	Credit Hours (Total) / Num	ber of Units (Total)
3/4			
	ministrator's name (ment		re than one name)
_	eer obaid talak , Nedhal Ib er_obaid@uoanbar.edu.ig_, Edw.ne		ar edu ig
	<u>, cumarcuuriq</u> , <u>cumarcuuriq</u>	<u>sunal_roeuoano</u>	
8. Course Obj	ectives		
Course Objectives		•	Knowledge of amino acid
			metabolism
		•	Knowledge of the metabolic
			process
		•	Knowledge of carbohydrate
			metabolism
	nd Learning Strategies		
Strategy	the students on the	screen and i	rified by presenting it to re-clarifying it practicall l through daily exams.

10. Course Structure						
Week	Hours	Required	Unit or subject	Learning	Evaluation	
		Learning	name	method	method	
		Outcomes				
First	4	Metabolism	Cellular metabolism	A theoretical and practical	Daily exams and daily	
Second	٤	Factors that affect t metabolism process	=	lecture =	assignments =	
Third	٤	Carbohydrate metabolism process	=	=	=	
Fourth	٤	Sections of carbohydrates	=	=	=	
Fifth	٤	Digestion and absorption of carbohydrates	=	=	=	
Sixth	٤	Cellular respiration	=	=	=	
Seventh	٤	Oxidation and reduction reactions	=	Practical and	=	
Eighth	۲	First month exam	=	theoretical exam		
Ninth	٤	Metabolic processes on different food parts	=	=	=	
Tenth	٤	Hydrolysis	=	=	=	
Eleventh	٤	Stages of cellular respiration	=	=	=	
Twelveth	ź	Summary of glycolysis	=	=	=	
Thirteenth	٤	Redox reactions	=	=	=	
Fourteenth	٤	in the cell Amino acid	=	= Practical and	=	
Fifteenth	۲	metabolism Second month exam	=	theoretical exa	=	

11. Course Evaluation

The grade is distributed out of 100 according to the theoretical exams: 20 marks, the practical exams: 10 marks, the daily exams: 5 marks, and the daily assignments: 5 marks. The final exam is 60 marks, divided into 15 practical marks and 40 theoretical marks.

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (source)	Book of biochemistry and metabolic processes
Recommended books and references (scientific	
journals, reports)	
Electronic references, websites.	

1. Course Name: Basic of plant science

2. Course Code: EWb3104

- 3. Semester / Year: Semester
- 4. Description Preparation Date: 28/3/2024
- 5. Available Attendance Forms: Presence
- 6. Number of Credit Hours (Total) / Number of Units (Total): 30

7. Course administrator's name (mention all, if more than one name)

Name: Prof. Dr. Ali Hussein Ibraheem Al-Bayati	Email: ag.ali Hussein@uoanbar.edu.iq
Lecture Dr. Asmaa Abdulameer Bedn	asmaa.abdulameer@uoanbar.edu.iq

8. Course Objectives

Course Objectives	This course aims to enable the biologist sciences student to master the
	general basics of botany, and includes a historical introduction. The
	branches of science, its scope, and its importance. It also mainly deals with
	the study of the apparent appearance and internal structure of the plant, the
	most important biological processes that occur in the plant, and the plant's
	relationship with humans and the environment.

9. Teaching and Learning Strategies Strategy Through theoretical lectures and the laboratory aspect of training in the field of botany and determining the characteristics of its parts morphologically and anatomically using clarification methods and daily examinations, as well as discussing quarterly reports.

10. Course Structure

10. Course structure						
Week	Hour s	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method	
First	5	Introduction, and getting acquainted with the basic terms in the field of botany.	Basic of plant Science	Giving the lecture	Weekly exam	
Second	5	Learn about the history of the development of botany and the contribution of Arab	Basic of plant Science	Giving the lecture	Weekly exam	

Third	5	and Muslim scientists in the progress of science, its fields and branches and its importance. Plant tissue Meristem tic plant tissue. Permanent plant tissues.	Basic of plant Science	Giving the lecture	Weekly exam
Fourth	5	Basic plant tissues. Plant connective tissue. Vascular plant tissue. Secretory plant tissue. Learn about the composition of the plant cell and interpretation of basic biological processes	Basic of plant Science	Giving the lecture	Weekly exam
Fifth	5	in plants and linking basic concepts in botany and plant chemistry. Root phenotypic structure. Types of roots - and the anatomical structure of the roots - natural secondary growth and types of	Basic of plant Science	Giving the lecture	Weekly exam
Sixth Seventh	5 5	modifications in the apparent and anatomical structure of the roots to adapt to the environment. Semester exam Phenotypic structure of the leg. Types of stems - and the anatomical structure of the stem - natural secondary growth and types of modifications in the apparent and anatomical structure	Basic of plant Science Basic of plant Science	- Giving the lecture	- Weekly exam
Eight		of the stems to adapt to the environment.			

	5	Phenotypic structure of leaves. Types of leaves according to function - and the anatomical structure of the leaf -and types of modifications in the apparent and anatomical structure of leaves to adapt to	Basic of plant Science	Giving the lecture	Weekly exam
Ninth	5	the environment. Flower structure - types of inflorescences - and different types of	Basic of plant Science	Giving the lecture	Weekly exam
Tenth Eleventh Twelfth Thirteenth Fourteenth Fifteenth	5 5 5 5	fruits. Root anatomy Semester exam Stem anatomy Anatomy of leaves The basic biological processes in plants (photosynthesis and respiration) and their relationship to the environment. The relationship between plants, humans, medicinal	Basic of plant Science Basic of plant Science	Giving the lecture Giving the lecture Giving the lecture Giving the lecture	Weekly exam Weekly exam Weekly exam Weekly exam

11.Course Evaluation

30% for each semester exam - 20% for weekly exams and 20% for the semesterly report.

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Basic of plant science
Main references (source)	Basics of Botany - Ruqaya Hussein Jassim -
	2013 - Dar That Al Salasil for Printing and
	Publishing.
Recommended books and references (scientific	Principles of Plant Science: Environmental
journals, reports)	factors and technology in growing plants.
	by Dennis R. Decoteau (Author)2005.
Electronic references, websites.	https://www.agro-lib.site/2019/01/blog-
	post_66.html
	https://academic.oup.com/journals/

pages/plant-science-
hub?campaignid=21060394715
&adgroupid=160285785780&adid
=692152224375&gad_source=1&gclid
=Cj0KCQjwzZmwBhD8ARIsAH4v1gWSCnLo

				L		
1. (Course N	Vame:				
H	Headway	v Plus Upp	per- Intermediat	e		
2. 0	Course C	Code:				
3. 5	Semester	r / Year:				
	Semeste	r				
4. I	Descript	ion Prepa	ration Date:			
28	8/٣/2024					
5. 4	Availabl	e Attenda	nce Forms:			
1	Attendar	nce in clas	srooms			
6. I	Number	of Credit	Hours (Total) /	Number of Units (7	Fotal)	
	30 hours	/ 15 units	6			
7. (Course a	dministra	tor's name (men	tion all, if more that	in one nam	e)
1	Name: P	rof.Dr. Al	li Sabah Jameel			
I	Email: al	lisabah40	@uoanbar.edu.i	q		
8. (Course C	Objectives				
	 Mastering language skills, mastering writing, and developing a cognitive vocabulary store. The ability to use multiple types of reading. Understand written materials, and distinguish between concepts. Analyze text to divide information into parts. Forming a coherent cognitive text that expresses information in a specific field 					
9. 7	Feaching	g and Lean	rning Strategies			
Strate	Strategy Modern lecture, group work, and using technology tool.					
10. Course Structure						
Week	Hours	Required I	Learning Outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	2	As mentior	ned in item 8	No place Like Home.	memou	munuu
2	2	As mentioned in item 8		Been there, Done That!		
3	2	As mentior	ned in item 8	What a Story.		
4	2	As mentioned in item 8		Review Units 1, 2, and 3.		
5	2	As mentior	ned in item 8	Nothing But the Truth.		

6	2	As mentioned in item 8	An Eye to the Future.		
7	2	As mentioned in item 8	Making it Big.		
8	2	As mentioned in item 8	Mid-Term Exam		
9	2	As mentioned in item 8	Getting on together.		
10	2	As mentioned in item 8	Going to Extremes.		
11	2	As mentioned in item 8	Things ain't What they Used to Be!		
12	2	As mentioned in item 8	Risking Life and Limb.		
13	2	As mentioned in item 8	In Your Dreams.		
14	2	As mentioned in item 8	It is Never too Late.		
15	2	As mentioned in item 8	Review Units 7 -12.		
11. Course Evaluation					
The evaluation process consisted of 2 mid-term exams allotted 40 marks, and summative					
exam allotted 60 marks.					
12.Learning and Teaching Resources					
Require	d textboo	ks (curricular books, if any)	Headway Plus Upper- Intermediate.		
			* **		

Main references (source)	
Recommended books and references (scientific	
journals, reports)	
Electronic references, websites.	