



Ministry of Higher Education and Scientific Research
Scientific Supervision and Evaluation Authority
Quality Assurance and Academic Accreditation Department
Accreditation Department

**Description of the
academic program and
curriculum for the
Department of Science**

2025-2026

for the Science Department Template Academic Program Description

University Name: University of Diyala

College/Institute: College of Basic Education

Department: Department of Science

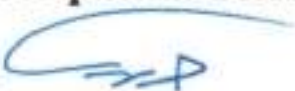
Academic or Professional Program Name: Bachelor of Education/Life Sciences

Certificate Name: Bachelor of Education/Life Sciences

Academic System: Semester-based

Date of Description Preparation: October 1, 2020

Date of File Completion: October 10, 2020

Signature: 

Name of Scientific Assistant:

Prof. Dr. Haider Abdulbaqi

Date: 10/10/2020

Signature: 

**Department Head: Dr. Nawwar
Thamer Mohammed**

Date: 10/10/2020

The file was reviewed by

Division Quality Assurance and University Performance

Name of the Director of the Quality Assurance

University Performance Division : Dr. Widian Habib Hamid and ance

Date: 10.10.2020

Signature 

Approval by the Dean

Assistant Professor Dr. Ayman Abdul Aoun Nazal

Number of units	Program Description					
	Credit Hours			Course name	Course code	Year / Level /
	merging watches	practical	theoretical			
3	3	---	3	General teaching methods	SCBB04GMT326	/Third Fifth
3	3	---	3	Educational research methodology	SCBB04EC317	
3	4	2	2	Animal physiology	SCBB04AP321	
3	4	2	2	parasitology	SCBB04P312	
4	5	2	3	Plant and animal production	SCBB04PP316	
16	19	6	13			the total

Number of units	Program Description					
	Credit Hours			Course name	Course code	Year / Level /
	merging watches	practical	theoretical			
2	2	---	2	Measurement and evaluation	SCBB04ME325	/Third Sixth

2	2	---	2	Curricula and textbooks	SCBB04C 313	
3	4	2	2	Immunology	SCBB04IS322	
3	4	2	2	entomology	SCBB04GE323	
2	2	---	2	Methods of teaching science	SCBB04SM 314	
2	2	---	2	Plant classification	SCBB04T314	
2	2	---	2	Environmental Education and Health	SCBB04PP	
2	2	---	2	sustainable development	SCBB04PP	
18	20	4	16			the total

template Course description

Course Name	
Educational research methodology	
code Course	
SCBB04EC317	
Year /Semester	
Fifth/Third	
description was prepared Date this	
٢٠٢٥/١٠/١	
forms of attendance Available	
mandatory	
(Number of study hours (total) / Number of units (total	
hours practical ١٥ hours theory and ٣٠ hours: ٤٥ 2 units	
if there is more than one,) Name of the course coordinator (please mention it	
:Email .A -Prof. Dr. Majid Abdul Sattar Al :Name Basicsci55@quodiyala.edu.k	
objectives Course	
Cognitive objectives -A Enabling students to acquire --\A of the knowledge and understanding research methodology Enabling students to acquire -٢A For types knowledge and understanding of research methodology Students were taught how to apply -٣A hods to societal problemsresearch met Enabling students to acquire -٤A understanding of the knowledge and principles and steps of scientific research Enabling students to acquire the -٥A knowledge and understanding to apply action research methodology the the of objectives skill specific The -B course	Course objectives

of the steps for writing a Analysis – 1B descriptive research methodology the descriptive approach Compares – 1B and the experimental approach scientific of Applying the steps – 1B research in practice information by writing Gathers – 1B methodologies reports on research based objectives–Affective and value –C To explain and analyze the concept – 1A of research methodology Compare the scientific method in – 1Q descriptive research and the experimental method tes some problems that used Evalua – 1Q the descriptive and experimental methods	
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Teaching and learning strategies

Giving or lecturing – 1 Question and Answer – 1 Discussion – 1	strategy
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Course structure

Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week
Daily tests	1- delivery 2- discussion	Action research methodology (its concept and importance)	Enabling students to understand the concepts and importance of action research methodology	3	1.
ing a Writ paper on the topic	Discussion and questioning	Characteristics of action research Ethical	To enable students to understand the	3	2.

		considerations in educational research	characteristics of action research and the most important ethical considerations in educational research		
Class participation	Discussion and inquestion	Research Introduction: Research problem, rules for formulating the problem, importance of the research, conditions and writing of the importance of the research, research objectives, research limitations, research hypotheses, defining terms	Enabling students to know the definition of research, its problem, rules for formulating it, its importance, conditions for writing it, research objectives, its limits, research hypotheses, and defining terms	३	3.
Daily tests	Discussion presentations	Theoretical framework, previous studies	Students should know what the theoretical framework is, what previous studies are, and how to write them	३	4.
chooses a problem and writes its steps	Problem solving	descriptive research	Students should be familiar with descriptive research in all its	३	5.

himself			details		
Oral questions	Discussion and questioning	experimental research	Students should become familiar with experimental research in all its aspects	३	6.
Writing a paper on the topic	Discussion and questioning	Search variables and their settings	Students should learn about research variables and how to control them	३	7.
test Monthly	First month exam			३	8.
Class participation	discussion	Research population, sample members, sampling methods, probability -non sampling, sample size	Enabling students to understand the research population, samples and their -members, non probability samples, and sample size	३	9.
Writing a summary of the topic	discussion	Data collection tools: questionnaire, interview, observation	Enabling students to learn about data collection tools questionnaires,) interviews, (observations	३	10.
Daily test	Presentation discussion and	Statistical methods, their concept, importance, some statistical methods mean, median,) (mode	Introducing students to statistical methods in terms of concept, (mean, (median, mode	३	11.
Writing a paper on the topic	Presentation discussion and	Presenting and interpreting the results Conclusions, recommendations, and proposals	To familiarize students with the mechanism for presenting and interpreting results, conclusions, recommendations, and proposals, and how to formulate	३	12.

himself			details		
Oral questions	Discussion and questioning	experimental research	Students should become familiar with experimental research in all its aspects	३	6.
Writing a paper on the topic	Discussion and questioning	Search variables and their settings	Students should learn about research variables and how to control them	३	7.
test Monthly	First month exam			३	8.
Class participation	discussion	Research population, sample members, sampling methods, probability -non sampling, sample size	Enabling students to understand the research population, samples and their -members, non probability samples, and sample size	३	9.
Writing a summary of the topic	discussion	Data collection tools: questionnaire, interview, observation	Enabling students to learn about data collection tools questionnaires,) interviews, (observations	३	10.
Daily test	Presentation discussion and	Statistical methods, their concept, importance, some statistical methods mean, median,) (mode	Introducing students to statistical methods in terms of concept, (mean, (median, mode	३	11.
Writing a paper on the topic	Presentation discussion and	Presenting and interpreting the results Conclusions, recommendations, and proposals	To familiarize students with the mechanism for presenting and interpreting results, conclusions, recommendations, and proposals, and how to formulate	३	12.

Daily test	discussion and interrogation	Conducting a field visit to the college and university libraries to review some master's theses and doctoral dissertations	them The students were given a field trip to the college and university libraries and shown some theses and dissertations	۳	13.
Writing a paper on the topic	Discussion and presentation	Summarizing a Master's thesis or PhD dissertation by students	Assigning students to prepare a summary of a master's thesis or doctoral dissertation	۳	14.
Second month exam	Second month exam			۳	15.

Course evaluation

is distributed according to the tasks assigned to the student, such as ۱۰۰ The grade out of .daily preparation, daily, oral, monthly, and written exams, reports, etc

Degree	Grade distribution
Theory ۴۰ + with activities + Practical with ۶۰ (activities)	Monthly theory exam + daily exam + attendance reports +
theory + ۴۰ + (practical ۶۰)	Final exam grade
۱۰۰	Final grade

Learning and teaching resources

Scientific Research Methods Book	textbooks (methodology, if Requi (applicable
Dr. Muhammad Sarhan Ali D. Abdul Rahman Badawi	(Main references (sources
Libraries	Recommended supporting books and (...references (scientific journals, reports
Scientific Research Portal	s, websitesElectronic reference

of the course description Growth

. Course name	
General teaching methods and their applications	
code Course	
SCBB04GMT326	
. Year /Chapter	
First/Third	
description was prepared Date this	
٢٠٢٥/١٠/١	
/ of attendance forms	
mandatory	
(Number of study hours (total) / Number of units (total	
(practical ٢٠ theory and ٢٠) ١٠	
if there is more than one, please) Name of the course coordinator	
.(mention it	
:Email .A -Name: A.M. Mona Abdullah Ismail Alaljmely30@gmail.com Basicsci9@uodiyala.edu.iq	
objectives Course	
I- Cognitive objectives Enabling students to acquire knowledge -١ and understanding of the concept of teaching methods Enabling students to acquire knowledge -٢ and understanding of the concept of teaching strategies to acquire knowledge Enabling students -٣ and understanding of the concept of teaching methods Enabling students to acquire knowledge -٤ and understanding of commonly used .teaching methods a) Enabling students to acquire knowledge	Students' understanding of the concept .١ of teaching methods importance Students' awareness of the .٢ of teaching methods Identifying the most commonly used .٣ methods Identifying the most important trends .٤ and innovations in teaching methods Learning teaching methods for mastery .٥ and creativity Students' knowledge of teaching .٦ tion and strategiesdiversifica

and understanding of the concept of diversified teaching Enabling students to acquire knowledge and understanding of the concept of trends and innovations in teaching methods based objectives-Affective and value - Developing a spirit of development and renewal innovations Keeping up with the latest and developments in teaching methods Keeping pace with the use of technology in education Keeping abreast of global developments in educational and psychological sciences based objectives of the -The skills course n distinguishing between Special skills and methods Special skills In analyzing and interpreting each method in terms of its advantages and disadvantages Skills in how to choose the best teaching method Special skills in how to combine more than one method in a single lesson	
Teaching and learning strategies	
Brainstorming, the hot seat, the lecture method, the discussion solving method, and programmed -method, the problem .instruction	Strategy and teaching methods

Course structure

Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week
Classroom participation in the lecture	delivery Interrogation discussion	Teaching theories: • their concept and • importance .focus	To enable students to know and understand teaching theories in terms of concept, importance, and interests	4	the first
Classroom participation in the lecture	delivery Interrogation discussion	The relationship between teaching theory and – learning theory examples of teaching theories	Enabling students to know and understand the relationship between teaching theory and learning theory and to models apply .from them	4	the second
Classroom participation in the lecture	delivery Interrogation discussion	Teaching -terminology: Teaching methods Teaching - strategies .models Teaching -	Enabling students to know and understand the appropriate teaching method and the most	4	the third

			important techniques and strategies, while applying some teaching models		
Classroom participation in the lecture	delivery Interrogation discussion	:Teaching skills concept Its - Its elements- Effective teaching Creative teaching	Enabling students to know and understand the concept and elements of skills, along with knowledge of effective and creative teaching	4	Fourth
Classroom participation in the lecture	delivery Interrogation discussion	Teaching diversification and its strategies: The concept of teaching its – diversification its – justifications foundations and – principles teaching diversification strategies	To enable students to know and understand the concept of differentiated instruction, its justifications, its most and important foundations and principles, while mastering the most important differentiated instruction strategies	4	Fifth

Classroom participation in the lecture	delivery Interrogation discussion	The concept of diversifying its – teaching its – justifications foundations and – principles strategies for diversifying .teaching	To enable students to know and understand the concept of differentiated instruction, its justifications, and its most important foundations and principles, while mastering the most important differentiated instruction .strategies	£	Sixth
Classroom participation in the lecture	delivery Interrogation discussion	Commonly used methods teaching (lecture) - Interrogation (	Enabling students to know, understand, perform and organize commonly used teaching methods lecture and) .(questioning	£	Seventh
Achievement test	First month exam			£	Eighth
Classroom participation in the lecture	delivery Interrogation discussion	Discussion - Induction and deduction	Enabling students to know, understand, perform, and organize the methods of 'discussion	£	Ninth

			induction, and measurement		
Classroom participation in the lecture	delivery Interrogation discussion	Teaching methods based on research, knowledge organization, and inquiry Problem solving Units -	Enabling students to know, understand, perform, and organize -problem solving methods and based-unit approaches	4	tenth
Classroom participation in the lecture	delivery Interrogation discussion	The project- Appointments -	Enabling students to know, understand, perform, and organize project and assignment methods	4	eleventh
Classroom participation in the lecture	delivery Interrogation discussion	Cooperative learning and individual learning methods The cooperative - learning method Individual - learning method	Enabling students to know, understand, perform, and organize both cooperative and individual learning methods	4	twelfth
Classroom participation in the	delivery Interrogation	Teaching methods for mastery and creativity	Enabling students to know,	4	thirteenth

lecture	discussion	The method of - learning for mastery playing -Role - method	·understand perform, and organize the learning method for mastery and .playing-role		
Classroom participation in the lecture	delivery Interrogation discussion	brainstorming method	Enabling students to know, understand, perform, and organize the brainstorming method	4	fourteenth
Achievement test	Second month exam			4	fifteenth

evaluation Course

is distributed according to the tasks assigned to the student, such as 100 The grade out of
.daily preparation, daily, oral, monthly, and written exams, reports, etc

Degree	Grade distribution
Theory 40 + with activities + Practical with 10 (activities	Monthly theory exam + daily exam + attendance reports +
theory + 10) 50 (practical 10	Final exam grade
100	Final grade

Learning and teaching resources

The latest publications on methods and strategies, teaching covering the prescribed .curriculum	(Required textbooks (methodology, if applicab
Dr. Dawood Maher Mohammed and Majid Mahdi Mohammed: Fundamentals of General Teaching Methods	(Main references (sources

Amin: General -Shaker Al Teaching Methods for Social Studies The trick: teaching methods and strategies	Recommended supporting books and (...reports ,references (scientific journals
All books and references available online	Electronic references, websites

(Sustainable Development(Course description

Course Name	
sustainable development	
Course code	
Semester/Year	
Third / Sixth	
Date this description was prepared	
٢٠٢٥/٤/١	
Available forms of attendance	
mandatory	
(Number of study hours (total) / Number of units (total	
hours of theory (٢٠)	
units ٢	
Name of the course coordinator (if there is more than one, .(please mention it	
:Email A'i -Nawwar Thamer Mohammed Al .Name: Dr basicsci14@uodiyala.edu.iq	
objectives Course	
of the The student should be able to at the end academic year Sustainable Development Definition of • of Lists the characteristics sustainable development • of The historical development is sustainable development .shown • for the requirements It explains .sustainable development • of It analyzes the elements .sustainable development • information He possesses	Course objectives Among them Cognitive -A objectives Enabling -٢A students to acquire knowledge and understanding of of the concept sustainable development Enabling -٢A students to acquire

of about the dimensions sustainable development • of It illustrates the philosophy sustainable development • of the goals It outlines sustainable development • He is aware of the challenges and obstacles to achieving the Sustainable Development Goals • He is able to form partnerships to achieve goals	knowledge and of understanding the characteristics sustainable of development Enabling -tA students to acquire knowledge and of understanding the historical of development sustainable development Enabling -eA students to acquire knowledge and of understanding the requirements sustainable of development Enabling -vA students to ire acqu knowledge and of understanding of the elements sustainable development Enabling -vA
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	students to acquire knowledge and of understanding the dimensions Sustainable development Enabling –AA students to acquire knowledge and understanding of Philosophy Sustainable Development The specific – B skills objectives of the course. Establishes - 1B partnerships to achieve the Sustainable Development Goals Achieving – 2B goals practically the Analyzes – 3B goals Overcoming – 4B the challenges and obstacles that
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	hinder the achievement of goals the Explains –eB values and ethics sustainable of . development of The role –vB sustainable in development addressing . problems Write a research –v sustainable on paper development .
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Teaching and learning strategies

Several teaching strategies and methods will be used to information to students, including lecturing, deliver .solving, etc-discussion, questioning, problem	strategy
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Course structure

Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week
Preliminary test	Discussion and questioning	The concept of sustainable development and its definitions The reasons for - setting the Sustainable .Development Goals Characteristics of - sustainable development and the elements that ensure .uityits contin	Definition of Sustainable Development • Lists the characteristics sustainable of development	2	1.
Daily test	Lecture	Historical development of	• The	2	2.

	Problem solving	sustainable development	historical of development sustainable development is shown		
Oral question	Discussion and questioning	Requirements for sustainable development	• It explains the requirements for sustainable development	2	3.
Preliminary test	Lecture Problem solving	Elements of sustainable development - Economic aspect - social aspect - Environmental aspect - Technological aspect	• It analyzes of the elements sustainable development	2	4.
Daily test	Discussion and questioning	Dimensions of sustainable development - Economic dimension - social distance - Environmental dimension - Technological dimension	He possesses information about the of dimensions sustainable development	2	5.
First month exam					6.
Preliminary test	Lecture Problem	Philosophy of Sustainable Development Values and ethics of	• It illustrates the philosophy	2	7.

	solving	sustainable development The facts upon which - sustainable development is based	sustainable of development		
Daily test	Discussion and questioning	Sustainable Development Goals and Principles - The goal is to eradicate poverty - The goal of good health being-and well	• It outlines of the goals sustainable development	✓	8.
Oral question	Lecture Problem solving	The goal of good education The goal of gender equality The goal of clean water and hygiene The goal is clean and affordable energy	• It outlines of the goals sustainable development	✓	9.
Preliminary test	Discussion and questioning	The goal of decent work and economic growth The goal is industry, innovation, and infrastructure The goal is to reduce inequalities	• It outlines of the goals sustainable development	✓	10.
Daily test	Lecture Problem solving	Challenges and obstacles to achieving the Sustainable Development Goals Sustainable cities and local communities Responsible consumption and production	• He is aware of the challenges and obstacles to achieving the Sustainable Development Goals	✓	11.
Oral question	Discussion and	- Climate action - underwater life - Life on land	• He is aware of the	✓	12.

	questioning	- Peace, justice, and strong institutions	challenges and obstacles to achieving the Sustainable Development Goals		
Preliminary test	Lecture Problem solving	Forming partnerships to achieve goals Iraq's vision for the Sustainable Development Goals	• He is able to form partnerships to achieve goals	✓	13.
Daily test	Discussion and questioning	The international community's vision for the Sustainable Development Goals Challenges and obstacles to achieving the Sustainable Development Goals	• He is able to form partnerships to achieve goals	✓	14.
Second month exam				✓	15.

Course evaluation

according to the tasks assigned to the student, such as is distributed 100 The grade out of daily preparation, daily, oral, monthly, and written exams, reports, etc

Total	Final grade	Degree of pursuit	Grade distribution
100	100	100	Monthly theory exam + daily exam + attendance reports +

Learning and teaching resources

Nothing	(Required textbooks (methodology, if applicable)		
All	Sustainable Development	(Main references (sources	

References and Charters	
books written in the field of sustainable development	Recommended supporting books and (...references (scientific journals, reports
quality lectures and web –High hosting	Electronic references, websites

Course description template

: Course Name
Immunology
: code Course
SCBB04IS322
: Year /Chapter
٢٠٢٦-٢٠٢٥ semester / Academic year Second
: description was prepared Date this
٢٠٢٥/٣/٢٤
: forms of attendance Available
person lectures held in the halls of the Science Department / College -Weekly in of Basic Education
Practical : Total study hours/total units
30 practical hours ٢٠ hour theory + ١٠
if there is more than one, please) Name of the course coordinator .(mention it
:Email A'i -Name: Dr. Sundus Adel Naji Albasicsci22@uodiyala.edu.iq
objectives Course
Immunology, what immunity is, Introducing students to the science of -A .and what its types are b) To become familiar with the immune system and its primary organs Secondary And cell types .Understands innate immunity and distinguishes between mechanical (c .chemical , and cellular barriers Distinguishes between the types of immune cells of innate immunity and (their biological roles Understands inflammation as a second line of defense within the innate - .hronic inflammationimmune system and distinguishes between acute and Course objectives

He defines acquired immunity and distinguishes between active and -e .passive immunity .distinguishes between humoral immunity and cellular immunity - And Explains the mechanism of production, maturation, and differentiation of B cells and T cells both .Explain what antigens are, their general characteristics, and their types - Define opposites, their structure, types, and vital roles -Q Define cytokines and the vital role of their types -S actionsExplains allergies, their types, and re -D Understands the mechanism of immune loading -A	
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Teaching and learning strategies

Teaching and learning methods	strategy
Lecture-A b) Presentation and interrogation c) Discussion Practical lessons -D :Visual aids The blackboard- colored pencils data projector Models, photographs .1 Learning outcomes, teaching and learning methods, and :assessment Knowledge and understanding known Immunology is -1 A Learn about the immune system and explain the primary :Y-1 A .and cell types .immune organs, secondary immune organs He defines innate immunity and distinguishes between mechanical, -1 .chemical, and cellular barriers Differentiate between the types of immune cells of innate Y-1 A immunity and their biological roles ond line of defense within the Understands inflammation as a sec -2 A innate immune system and distinguishes between acute and chronic .inflammation Define acquired immunity and distinguish between active and -1 A .passive immunity Distinguishes between humoral and cellular immunity -1 A Distinguish between B cells and T cells, and the mechanism of their - .production, maturation, and differentiation Explains antigens and their types, and antibodies and their types -1 A	

Explains what allergies are, their types, and the causes that lead to hypersensitivity
 Understands the mechanism of immune loading - 1A
 Define cytokines and their vital roles - 1A
 specific skills-Subject
 primary and secondary organs of the immune system Draw the - 1B
 using a diagram the origins of immune cells Distinguish between - 1B
 .illustrating their sequential origin
 a diagram of how complement types work Draws - 1B
 Distinguish between acute and chronic inflammation using a table - 1B
 .phagocytic cell exit from blood vessels using a diagram
 ion of B and T cellsDraws the differentiat - 1B
 Distinguish between the types of specific antonyms using a - 1B
 diagram
 Illustrate with a diagram the types of allergies - 1B
 Diagram the mechanism of immune loading - 1B
 Thinking skills -
 Analytical thinking - 1A
 ergent thinkingFree thinking and div - 1Q
 Critical thinking - 1Q
 Creative Thinking - 1Q

Course structure

Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week
oral exam Daily exam monthly exam	Lecture an offer the picture And the lessons The process	Immunology-1 The immune -1 system Innate immunity - Types of cells-1 For innate immun The second line of defense Inflammation and	Definition of immunology, -1 immunity, an overview Historically, it lists the branches .of immunology Explains the components of the immune system Defines innate immunity and role explains its Mechanical biological barriers Chemical and cellular Distinguishes between types - of immune cells	week	16-1 Week 17-1 Week 18-1 Week 19-1 Week 20-1 Week 21-1 Week 22-1 Week 23-1 Week 24-1 Week 25-1 Week 26- eleven Week

	types	Innate immunity and its biological roles	27- Week Twelve
	Acquired - ^١ immunity	Understands inflammation as a second line of defense	28- ^{١٣} Week
	First month exam- Origin and - ^٨ differentiation of cells	Within the framework of innate immunity, and distinguishes between acute and chronic inflammation	29- Week Fourteen
	B cells The letter T Antigens- ^٩	Acquired immunity is defined. It shows the types	30- Week fifteen
	Opposites - ^{١٠}	First month exam - ^٧ Explains the mechanism of - ^٨ production, maturation, and differentiation of each	
	Cytokines - ^{١١}	From B cells and T cells	
	Monthly exam - ^{١٢} the second	.Explain what antigens are - ^٩ General characteristics and types of antigens	
	Allergies, their - ^{١٣} types, and reactions	Define antonyms and -Sh - ^{١٠} their structure	
	Immunological - ^{١٤} loading	What are their types and vital roles	
		Define cytokines and the - ^{١١} vital role of their types	
		Second Monthly Exam - ^{١٢}	
		Explains allergies and their - ^{١٣} types	
		interactions and its	
		Understands the mechanism - of immune loading	

Course evaluation

is distributed according to the tasks assigned to the student, such as daily ^{١٠} • The grade out of preparation, daily, oral, monthly, and written exams, reports, etc

Degree	Grade distribution
٢٥) ^{١٠} theoretical and (practical ^{١٥}	theory exam + Monthly daily exam + attendance reports +
٤٠) ^{١٠} theoretical and (practical ^{٢٠}	Final exam grade
١٠٠	Final grade

Learning and teaching resources

1- Fundamentals of Immunology 2- Principles of Immunology	Required textbooks (methodology, if applicable)
1- Fundamentals of Immunology 2- Principles of Immunology	(Main references (sources

3- Immunology 4- Immunology 5- Cellular and molecular immunology 6- Introduction to Immunology	
Journal periodicals Immunological Reviews, Journal of Allergy and Clinical Immunology, Cellular and Molecular Immunology	Recommended supporting books and (...references (scientific journals, reports
Wikipedia, PubMed	Electronic references, websites

template Course description

1. Course Name	
Environmental Education and Health	
2. code Course	
3. Year /Semester	
Chapter Two/ ٢٠٢٦-٢٠٢٥	
4. description was prepared Date this	
Beginning ٢٠٢٦/٢/٧ of semester the second	
5. forms of attendance Available	
My presence	
6. (hours (total) / Number of units (total Number of study	
.units ٢^hours and the number of units is ٢^	
7. if there is more than one,) Name of the course coordinator	
.(please mention it	
.Name: ProfDr. :Email A'i -Wasfi Mohammed Kadhim Al basicsci25@uodiyala.edu.iq : M.M. Bahaa Nazem Ali, email basicsci16@uodiyala.edu.iq	
8. objectives Course	
To introduce students to the importance of -١the environment and its preservation Knowledge of diseases and methods of -٢ ... preventing them Definition of addiction, its types, and methods of prevention	Course objectives
9. Teaching and learning strategies	
This course aims to define the environment, its importance, and its types (soil problems, and how to air, water), the problems it faces, how to solve these + preserve the environment, keeping it free from disease. It also covers controlling pollution levels, managing diseases, and how to prevent them, reducing environmental damage to living organisms, and maintaining an from pollution as possible through modern methods and environment as free techniques to reduce pollution and prevent diseases. Finally, it addresses the .dangers of addiction, alcohol, and internet addiction and Protecting individuals and avoiding anything harmful to human health society	strategy

10. Course structure

Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week
Tests Daily tests	Lecture	of Pollution: Definition pollution, Types of pollutants and Air pollution effects on humans and the environment the With noise pollution and its harmful effects on humans and the environment	Pollution and moral pollution	hours ↑	the first
Tests	Lecture	its : Water pollution causes and effects on Food humans its and contamination impacts environmental Humans and the – Ways : Environment and Prevention –risks of reduction .Pollution	Water pollution	hours ↑	the second
Daily tests	Lecture	Immunity, its definition, types, • medical, improvement for • importance its and against diseases humans and the vaccines that children should take .before starting school	Immunity	hours ↑	HBOJFHV J HGD,LD III
Tests	Lecture	one of the is Nutrition most important factors and it is •for humans one of the most important diseases .resulting from it anemia, • Malnutrition and obesity: symptoms Methods of – – – causes and prevention of it • thousand words A • words, and words And –definitions their .its types	Nutrition	hours ↑	Fourth

Daily tests	Lecture	its sources, : A Vitamin to humans, and benefits sources of . its presence N Y T U M Y F · B its · sources, benefits, and .sources of availability sources , C , its Vitamin and the diseases that deficiency cause its sources , · D Vitamin and the · its presence diseases caused by its deficiency in . the body of presence the Ink and And the its sources diseases caused by its deficiency in the body	Vitamins	hours ↑	Fifth
Tests	Lecture	affect Diseases that including · humans coronavirus, and their Causes of –symptoms methods of measles and Its .treatment symptoms and methods of treatment	Diseases	hours ↑	Sixth
Daily tests	Lecture	Polio: its causes, treatment methods, and German .symptoms and (rubella) measles its symptoms; tetanus and its symptoms and Epilepsy methods treatment, its symptoms, and methods of treatment	polio	hours ↑	Seventh
Tests Daily tests	Lecture	Diarrhea: Symptoms, Causes, Types, and Treatments From it, oral Prevention rehydration, common between diseases animal The humans exposed to war: causes by By it and of injury Its treatment –ways prevention and	diarrhea	hours ↑	Eighth
Tests Daily tests	Lecture	is It that The diseases transmitted by lice and mosquitoes and is among widespread	Infectious diseases	hours ↑	Ninth

		School students' classes and methods of and prevention .treatment			
Tests	Lecture	Addiction and its harms · smoking ·to humans Electronic – depression · hookahs · cigarettes · smoking and passive	blood	hours †	tenth
Daily tests	Lecture	The drugs khat and · morphine Methods of treating and · addiction preventing	drugs	hours †	atheistic ten
Tests	Lecture	of Types Modern Addiction and Mobile phones their effects on - children's health the child's on The effect personality and the vision effect on	Addiction	hours †	the second ten
Daily tests	Lecture	Electronic addiction to humans and its risks · environment and the and its Digital addiction impact on humans and environment the	Internet addiction	hours †	the third ten
Tests	Lecture	its and recycling Waste the on future effects environment Economic and · environmental	waste	hours †	Fourth ten

11.

marks) for each month, †)consists of a monthly exam The course assessment
.(marks †)marks), and attendance †)marks), a report †)totaling

12. distributed according to the tasks assigned to the is †. The grade out of
student, such as daily preparation, daily, oral, monthly, and written exams,
·reports, etc

Learning and teaching resources	
book, The Environment and Pollution :authored by Munther Mubdir Abdul Karim Wasfi Muhammad Kazim	Required textbooks (methodology, if (applicable
The Environment and Pollution book, :authored by Munther Mubdir Abdul Karim	(Main references (sources

Wasfi Muhammad Kazim	
Education Health and Environmental Sharqat-Al -Textbook, Tikrit University	Electronic references, websites

Course description template

Course Name:	
Plant classification	
code Course	
SCBB04T314	
:Year /Chapter	
Sixth/Third	
:description was prepared Date this	
1/10/2025	
: attendance forms of Available	
mandatory	
: (Number of study hours (total) / Number of units (total	
30units ↑ / Hour	
if there is more than one,) Name of the course coordinator	
.(please mention it	
:Email A'i- Intisar Karim Abdul Hassan Al .Dr :Name	
basicsci5@uodiyala.edu.iq	
objectives Course	
• Explain to the students what .classification is • Introducing them to the stages of .plant classification development • types of Introducing them to the stems, leaves, and roots	Course objectives
Teaching and learning strategies	

Using a data projector to present scientific material Using a whiteboard and colored markers to explain the scientific material Using process models and visual aids					strategy
structure Course					
Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week
Take a monthly test	Theoretical lectures hours 1 and	Definition of taxonomy	Definition of taxonomy, its importance, and its relationship other sciences to	1	1
Take a monthly test	hours of work Theoretical lectures hours 1 and	Diagnosis and Nomenclature	Fields of taxonomy	1	2
Take a monthly test	hours of work	Systems of classification	Artificial classification, natural classification, and evolutionary classification	1	3
Take a monthly test	Theoretical lectures hours 1 and	Gender concept		1	4
Take a monthly test	hours of work	Gender concept	Scientific nomenclature	1	5
Take a monthly test	Theoretical lectures hours 1 and	Primates	Classification ranks	1	6
Take a monthly test	hours of work	Primates		1	7
Take a monthly test	Theoretical lectures hours 1 and	Division of neighborhoods	Division of neighborhoods	1	8
Take a monthly test	hours of work	fungi	Plant Kingdom	1	9

Perform a monthly test	Theoretical lectures hours √	Multiple animals	mycology		
Conduct a monthly test	√ and hours of work		zoology		
	hours of √ theoretical lectures				
	√ and hours of practical work				
	Theoretical √ lectures: hours;				
	Practical √ lectures: hours				

Course evaluation

is distributed according to the tasks assigned to the student, such as √ ∙ ∙ The grade out of ∙ daily preparation, daily, oral, monthly, and written exams, reports, etc

Degree	Grade distribution
1 ∙	Monthly theory exam + daily exam + attendance reports +
2 ∙	Final exam grade
3 ∙ ∙	Final grade

Learning and teaching resources

The book "Theoretical and "Practical Classification	(Required textbooks (methodology, if applica
The book "Theoretical and "Practical Classification	(sources) Main references
The book "Theoretical and "Practical Classification	Recommended supporting books and (...references (scientific journals, reports

of the course description Growth

: Course Name					
Animal physiology					
code Course					
SCBB04AP321					
Year /Semester					
Sixth/Third					
description was prepared Date this					
٢٠٢٥/١٠/١					
forms of attendance Available					
mandatory					
(hours (total) / Number of units (total Number of study					
hours ١٠					
3 units					
if there is more than one, please) Name of the course coordinator					
.(mention it					
:Email A'i -Name: Dr. Sundus Adel Naji Albasicsci22@uodiyala.edu.iq					
: Email Name: M.M. Alaa Sahamalaaseham@uodiyala.edu.iq					
objectives Course					
- Understanding the physiology or functions of its parts, such as organs, tissues, or cells				Course objectives	
.functions of microorganisms within a single cell Studying the -					
Teaching and learning strategies					
To present the material to the students, several teaching strategies were used, including Lecture method - Interrogation method - Simulation method method Discussion Laboratory method					strategy
Course structure					
Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week

Written and oral tests	Lecture with discussion	Physiology	Introduction to animal physiology and fields of physiology Physiology of the nervous system	↑	the first
Written and oral tests	Lecture with discussion	Types of muscles in man	Physiology of the muscular system	↑	the second
Written and oral tests	Lecture with discussion	Development of the nervous system in living organisms	Physiology of the nervous system	↑	the third
Written and oral tests	Lecture with discussion	Components of the digestive tract	Physiology of the digestive system	↑	Fourth
Written and oral tests	Lecture with discussion	Human respiration	Physiology of the respiratory system	↑	Fifth
Written and oral tests	Lecture with discussion	blood circulation in living organisms	Device physiology Cardiovascular	↑	Sixth
Written and oral tests	Lecture with discussion	Study of the device's structures urine in humans	urinary system physiology	↑	Seventh
and oral tests Written	Lecture with discussion	Classification of animals according to body temperature	physiological effects For temperature	↑	Eighth

Course evaluation

is distributed according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, and written exams, reports, etc

Degree	Grade distribution
↑ 2	Grade for the monthly theory exam + daily exam
↑ 0	Practical level
↑ 1	Final theory exam

		grade
	٢٠	Final practical exam grade
	١٠٠	Final grade

Learning and teaching resources

	Required textbooks (methodology, applicable)
foreign books , magazines Arabic and Scientific, Internet	(Main references (sources
	Recommended supporting books and (...references (scientific journals, reports
	Electronic references, websites

Course description template

Course Name	
evaluation Measurement and	
code Course	
SCBB04ME325	
Year /Semester	
Sixth/Third	
description was prepared Date this	
٢٠٢٥/١٠/١	
forms of attendance Available	
mandatory	
(Number of study hours (total) / Number of units (total	
hours ٣٠ units ٣	
if there is more than one,) Name of the course coordinator (please mention it	
:Email .A- Obaidi Al-Name: Dr. Israa Akef Ali basicsci31@uodiyala.edu.iq	
1. objectives Course	
-1 Understanding the scientific meaning of the concepts of measurement and evaluation and the difference between them 2- evaluation and to To understand the importance of .identify its main areas, steps and types 3- Equipping students with the skill to prepare .different types of tests 4- Equipping students with the practical skills of the fundamentals of statistics in educational measurement evaluation and 5- Introducing students to assessment tools and their use in a way that suits the different aspects of the learner	Course objectives :course aims to help students achieve the following This Cognitive objectives - A Enabling students to acquire -١A knowledge and understanding of the concept of measurement and . evaluation Enabling students to gain -٢A knowledge and understanding of . tests the concept of personality Enabling students to gain -٣A

	knowledge and understanding of the concept of oral and written . tests Enabling students to acquire –1A g of knowledge and understandin and the concept of objective . essay tests Enabling students to gain –2A knowledge and understanding of . tests how to prepare Enabling students to gain –3A knowledge and understanding of how . map to prepare a test B- Specific to skill The Objectives the course. Special skills in – 1B distinguishing between the concepts of measurement and . evaluation a Skills in how to prepare – 2B . specifications table or test map Skills in choosing the – 3B appropriate test to measure the ch the set goals have extent to whi . achieved been in preparing a set of Skills –4B . behavioral objectives
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2. Teaching and learning strategies

Interrogation and discussion
Lecture
brainstorming

strategy

3. Course structure

Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week
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oral tests tests Daily Assignments and brainstorming	Lecture, questioning, and discussion	Measurement and evaluation and their role in the educational the concept of -process measurement and evaluation, the purposes of measurement and evaluation, and the areas of measurement and evaluation	Introducing students to the of concept measurement and their evaluation purposes, fields, and their role in the educational process	۲	1.
oral tests Daily tests Duties	Lecture questioning, and discussion	Types of educational assessment Formative assessment Final Calendar	Introducing students to the importance of educational assessment and familiarizing them with its main types formative and summative	۲	2.
oral tests Daily tests Duties	Lecture, questioning, and discussion	Practical applications relating to how to prepare formative and summative assessments	- To equip students with the skills to prepare various formative types of and summative assessments	۲	3.
oral tests Daily tests Duties	Lecture, questioning, and discussion	Achievement tests (classroom) Its types, purposes, and interpretation of its result	Introducing students to the concept of achievement tests, their types, purposes, and interpretation of their results	۲	4.
oral tests Daily tests Duties	Lecture, questioning, and discussion	Steps for preparing classroom tests Educational objectives Formulating educational objectives in behavioral terms Analysis of the course content specifications Prepare a table Principles for determining the type of items in tests	Introducing to the students steps of preparing classroom tests, from formulating objectives and analyzing the subject content to preparing a specifications table and explaining the mechanism for determining the type of items in the test	۲	5.
oral tests Daily tests	Lecture, questioning,	Objective tests Objectivity-	Introducing students to	۲	6.

			.them practically		
oral tests Daily tests Duties	Lecture, questioning, and discussion	Grades and ways to from them benefit Raw grade and derived grade	Enabling students their to understand grades, how to use them, and what raw and derived .grades are	↑	13.
oral tests Daily tests Duties	Lecture, questioning, and discussion	Standard scores and percentiles Methods of interpreting grades	Enabling students to understand standardized grades and methods of grade .interpretation	↑	14.
Second month exam				↑	15.

Course evaluation

is distributed according to the tasks assigned to the student, such as daily ... The grade out of
.written exams, reports, etc preparation, daily, oral, monthly, and

Degree	Grade distribution
1.	Grade based on: Monthly theory exam + Daily exam + Attendance + Reports
2.	Final exam
3.	Final grade

Learning and teaching resources

Nothing	(Required textbooks (methodology, if applica (Main references (sources
School achievement tests: Foundations for .constructing and analyzing their questions Kubaisi and -Prof. Dr. Abdul Wahid Hamid Al Prof. Dr. Hadi Mishaan Rabie	Recommended supporting books and (...ortsreferences (scientific journals, rep
Psychological and educational assessment The stranger symbolism .and measurement Principles of Educational Measurement and Evaluation for University Students and Arab Seven Abu Labda Teachers	Electronic references, websites

of the course description Growth

Course Name	
entomology	
code Course	
SCBB04GE323	
Year /Semester	
Sixth/Third	
description was prepared Date this	
٢٠٢٥/١٠/١	
forms of attendance Available	
mandatory	
(Number of study hours (total) / Number of units (total	
units ٧ hours / ٦٠	
if there is more than one,) Name of the course coordinator	
.(please mention it	
:Email .A -Name: M.D. Kadhim Adel Hadi Al	
basicsci10@uodiyala.edu.iq	
:A'eem - M.M. Taghreed Hadi Al basicsci60@uodiyala.edu.iq	
objectives Course	
- .Defining the basic concepts of entomology - .Explaining the relationship between humans and insects - Studying the external appearance of insects and methods of classify	Course objectives

.them					
Teaching and learning strategies					
- Lecture - learning-e - discussion					strategy
Course structure					
Evaluation Method	Learning method	Unit or topic name	Required learning outcomes	Hours	Week

Acquisition oral	Lecture	The importance of insects and their spread	The student should be able to understand the importance of insects	✓	1
Daily test	Lecture			✓	2
oral test	Lecture	External appearance and body wall of insects	The student should be able to list the layers of the body wall	✓	3
oral test	Lecture	Head and accessories	The student should be able to identify the parts of an insect's head and its appendages	✓	4
Monthly test	lecture T	Chest and its accessories		✓	5
test Daily					6
Daily test	Lecture	wings and legs	The student should be able to identify the parts of an insect's thorax	✓	7
oral test	Lecture			✓	8
oral test		The abdomen and its appendages	The student should be able to list the the appendages in chest area	✓	9
Daily test	Lecture				10
Daily test	Lecture	Anatomy of the digestive system	should The student be able to identify the parts of the abdomen	✓	11
Achievement test	Lecture	excretory system	The student should be able to explain the importance of the digestive system	✓	12
a dialogue					13
Achievement test	Lecture			✓	14
test		Reproductive system	The student should be able to explain the importance of the excretory system in insects	✓	15
Achievement test	Lecture				16
	Achievement test	Metamorphosis in insects	The student should be able to explain the importance of the insect reproductive system	✓	17
	Lecture			✓	18
	Achievement test	respiratory system		✓	19

	test Achievement test	circulatory system First month test For the previous material First month test First month test	The student should be able to explain the importance of metamorphosis in .insects be able to should understand the .respiratory system The student should be able to explain the importance of the .circulatory system First month test review First month test First month test		
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Course evaluation

is distributed according to the tasks assigned to the student, such as 100 The grade out of .preparation, daily, oral, monthly, and written exams, reports, etc daily

Degree	Grade distribution
100 100 theoretical and (practical 100	Grade based on: Monthly theory exam + Daily exam + Attendance + Reports

4.) 1. theoretical and (practical 1.	Final exam
1..	Final grade

Learning and teaching resources

General Entomology Book	Required textbooks (methodology, (applicable
General Entomology (by Dr. Hussein (Ali-Abbas Al	(Main references (sources
The Structure and Classification of Insects by George Nasrallah Rizk	Recommended supporting books scientific) and references (...journals, reports
	Electronic references, websites