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



# Academic Program and Course Description Guide

**Department of Science** 

2024/2025

# Introduction

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

# **Concepts and terminology:**

**Academic Program Description:** The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision:</u> An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission:</u> Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

<u>Program Objectives:</u> They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum Structure:</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

**Learning Outcomes:** A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

<u>Teaching and learning strategies</u>: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

# **Academic Program Description Form**

**University Name: Wasit University** 

**Faculty/Institute: College of Basic Education** 

**Scientific Department: Science** 

**Academic or Professional Program Name:** 

Final Certificate Name: Bachelor's Degree in Physics

Academic System: Courses/ 2nd Course

**Description preparation date: 27-1-2025** 

File completion date: 27-1-2025

Signature:

**Head of Department Name:** 

Dr. Yahya M. Abbas

Date: 27 / 1/2025

Signature: 2

**Scientific Associate** 

Name: Prof. Dr. Salah Abdel Hadi

Date: 28/1 / 2025

The file is checked by:

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

Department: Areej Fawzi Hatroush

Date: 29 / 1 /2025

Signature:

Approval of the Dean Abbas Fadel Abed 30 / 1 /2025

#### 1. Program Vision

The Department of Science at the College of Basic Education / Wasit University seeks to achieve a distinguished and prestigious position among the scientific departments in accredited Iraqi and Arab universities and to provide a distinguished environment for teaching, effective learning and scientific research. It also seeks to develop itself through leadership and excellence in providing various community services at the local and national levels in a way that serves Comprehensive development purposes to achieve the goals of sustainable development and green education.

#### 2. Program Mission

The Department of Science is committed to its own responsibilities in explaining and interpreting the cultural values of society in their local, national and global context. And to provide the community with distinguished graduates who possess the mental and physical skills to serve the community and develop the environment surrounding them. The department should provide comprehensive education in the various scientific disciplines related to the natural and human environment. Graduating students who are proficient in field and environmental studies and are proficient in interacting with various civil institutions. The department teaches and produces students who understand and appreciate the accumulated human knowledge and culture of peoples, their civilizations, beliefs and traditions in the past and present, as well as helping students in developing the necessary skills in criticism, analysis and creative work, which allows graduates to adapt to the changing labor market and achieve success in various professions.

## 3. Program Objectives

Through developing its study plan and the activity of its faculty members, the department aims to prepare the student for scientific research and the labor market. Qualifying the department's faculty members and their assistants in some specialized programs and scientific and training courses with the aim of providing them with more scientific experience. Participation in research projects that serve the environment and society, such as projects to train students in health and environmental practices in the city of Al-Aziziya, a project to develop scientific courses in the faculties of Wasit University, and a project to work in the local market of Iraqi cities. Qualifying students scientifically to advance them and achieve better development of their skills between science and specialization (science). The student graduates with many mental skills, manual skills, and the ability to use the computer and its modern programs.

# 4. Program Accreditation

Does the program have program accreditation? And from which agency? NO

## 5. Other external influences

Is there a sponsor for the program?

Ministry of Higher Education and Scientific Research - Iraq

# 6. Program Structure

<b>3</b>				
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Enterprise requirements	13	26	19.1 %	
College requirements	12	30	22.05 %	
Department requirements	23	80	58.8 %	
summer training				
Other				

<sup>\*</sup> This can include notes whether the course is basic or optional.

7. Program D	escription			
Year/Level	Course Code	Course Name		Credit Hours
2024/ 2025 First, second, third and fourth levels			theoretical	practical
First Level	1	the computer Democracy and human rights Basics of psychology General biology General chemistry Logic (mathematics)	1 2 2 3 3 2	2  2 2 2
	2	Arabic English Principles of basic education Islamic education General physics Human biology Laboratory security and safety	2 2 3 2 3 2 2 2	  2 2
Second Level	3	Arabic English the computer Counseling and mental health Wave motion and sound Material properties Classic mechanics Baath Party crimes	2 2 1 3 2 2 2 2 2	2  2  2 
	4	Educational statistics Educational psychology Thermodynamics Electric and magnetic Calculus Optical physics	3 2 2 3 2 2	2 2 2 2
	5	General teaching methods Educational research methodology Modern physics Quantum mechanics Astronomy	3 3 2 2 2	2 

Third Level				
		sustainable development	2	
		Environment and health	2	
		Measurement and evaluation	2	
		Curricula and textbooks	2	
	6	Electronics science	2	2
		Solid state physics	3	
		Methods of teaching science		
		Radioactivity	2 2	2
		Arabic literature	3	
		Professional ethics	2	
		Educational administration and	2	
	7	supervision		
		Practical education (watching)		
Fourth Level		Laser	2	2
		Electromagnetism	3	
		Nuclear Physics	3 2 2	
		Plasma physics	2	
	8	Undergraduate Research	3	
		Practice Teaching	12	

#### 8. Expected learning outcomes of the program

#### Knowledge

- 1.Empowering students scientifically advance them achieve and better development of their scientific and practical skills.
- 3. Acquiring students' scientific geographical field research skills and linking it to community service. environmental development, sustainable development, and green education..
- 2. Enabling students to understand and know broad scientific concepts and the relationship of physics to the rest of the sciences.
- 4. Raising the level of preparation among students to suit the requirements of the labor market as university teachers.

#### Skills

- research and reports, how to search for sources, collect data, and methods of analysis.
- 3. Training students on other applications related to computer science, statistics, weather science, climate, environment, and pollution using the latest modern technologies and applications.
- 1. Enabling them to formulate and write scientific 2. Training students well on practical applications and the use of modern technologies.

#### **Ethics**

- exchanging dialogue, and creating groups to discuss and dialogue about various topics
- 1. Giving a lecture and discussion with students, 2- Transferring what the student has acquired in physics to serve society
- 3. Strengthening scientific honesty.
- 4- Rapid response to physical problems facing the workplace and finding quick solutions to them, such as global warming, the green belt, and sustainable development.

# 9. Teaching and Learning Strategies

The lecture is delivered by the professor, after which they open the questions and answers section, after which the discussion and expression of different opinions about the scientific material and discussion of its validity.

# 10. Evaluation methods

Monthly exams

Daily exams (quizzes)

Oral exams

Writing scientific reports

Daily preparation and effectiveness in class

Final Exams

# 11. Faculty

# **Faculty Members**

Academic Rank	Spec	cialization	Special requirer skills (in applical	mnts f	Number of the	ne Teaching Staff
	General	Special			staff	Lecturer
1.Prof. Dr. Gazi Kamal Al- Shammary	Physics	Physics Materials			V	
2.Lecture D.YahyaM. Abbas	Physics	Physics Materials			$\checkmark$	
3.Lecture D. Firas S. Mized	Physics	Astronomy is celestial bodies			$\checkmark$	
4. Asst. Lec Masar A. Kauod	Physics	Thin film			ما	
5. Asst. Lec Rasol hamed	Physics	Plasma			V	
6. Lecture D. Jafar kamad	Biology science	Methods of teaching			$\sqrt{}$	
7.LectureD.HannaAbdAl hussen	Mathematics	Mathematics applied			√	
8. Lec. Ansam Gazi	Mathematics	Analytical Mathematics			V	
9. Asst. Lec. Sara hachm	Biology science	Methods of teaching			$\sqrt{}$	
10. Asst. Lec. Ranya M.	Biology science	Methods of teaching			$\checkmark$	
11. Asst. Lec. Rasha Reda	Psychology	Psychology			$\sqrt{}$	
12. Asst. Lec. Sara Kalaf	Computer Engineering	Computer			$\sqrt{}$	
13.Asst.Prof.Zinah Mohammed	Veterinary medicine Surgery	Physiology			$\sqrt{}$	
<ul><li>14. Lecture D. Ali Saad</li><li>Kadhim</li><li>15. LectureD.Anfal Izaldeen</li><li>AL Kateeb</li></ul>	Microbiology  Biology	Immunolgy Genetic and bioengineering			V	

16.LectureD.SaifAli Muttaleb	Chemistry	Clinical biochemistry	$\sqrt{}$	
17. Lecture. Alaa Sabah Aleewi	Biology	Biotechnology	ما	
18. Lecture. Raad Saad Sultan	Veterinary medicine	Poultry Diseases	√ √	
19.Asst.Lec. Hanan Hameed Attyhia	Biology	Special-Medicinal	$\sqrt{}$	
20. Asst.Lec. Ruaa Salam Abbas	Biology	Plants Botany	$\sqrt{}$	
21. Asst.Lec.Huda Hussein Eid Fayr	Biology	Human anatomy , histoiogy and embryology	√ √	
22. Asst.Lec. Linda Khalaf Kenawe	Biology	Micobiology	$\checkmark$	
23. Asst.Lec. Zaman Isaa Hachim	Biology	Zoology/ Genetics	$\sqrt{}$	
24.Asst.Lec.Manar naji hamad	Biology	Molecular	√ √	
25. Asst.Lec. Alaa Hussein Hamel	Biology	Microbiology	$\checkmark$	
26. Asst.Lec.Shatha Qasim Jaber	Veterinary medicine	Department of Physiology	√ √ √	

#### **Professional Development**

#### Mentoring new faculty members

- 1. Developing the technical, professional and administrative capabilities and skills of new faculty members in the field of specialization.
- 2. Indulging them in scientific activities, donation campaigns, and service to the institution and society
- 3. Including them in the various committees in the department
- 4. Allocating a training program and introducing them to training courses for the purpose of strengthening their professional, scientific and administrative skills

#### Professional development of faculty members

- 1. Annual evaluation of faculty members, which includes teaching, scientific and research activity, and the educational and administrative aspects
- 2. The teaching and scientific activities of the teaching staff are gathered. Then, the scientific committee, the student opinion questionnaire, and the Quality Assurance and University Performance Division at the college and university take part in the evaluation process of each lecturer.

#### 12. Acceptance Criterion

- 1. Admission requirements for students are approved in accordance with the laws of the Ministry of Higher Education and Scientific Research (central admission).
- 2. The student must pass the personal interview prepared by the department council.
- 3. Students must be medically fit for the specialty they are applying for.
- 4. The department's absorptive capacity and focus on quality, not quantity, and the market's need for the required numbers is another important criterion.

# 13. The most important sources of information about the program

- 1. Department Syllabuses
- 2. In addition to several sources related to the topics of each subject taught in the department, provided that they are modern and keep pace with the development of curricula and new terminology.

## 1. Program Development Plan

- 1. Forming an improvement plan committee, as the plan relates to reviewing and updating curricula on the one hand, and reviewing activity related to scientific research and methods of teaching for teachers in the department on the other hand.
- 2. Distributing a questionnaire to the students to extract their opinions at the end of each semester about the academic program
- 3. Distributing a questionnaire to the faculty members to collect their opinions at the end of each semester for the purpose of developing the curricula and courses
- 4. Coordination with the Quality Assurance and University Performance Division and implementing the prepared academic program effectively
- 5. Conduct a comprehensive review of the curriculum during any new developments regarding the program, such as changing some topics or adding others, and updating them periodically.

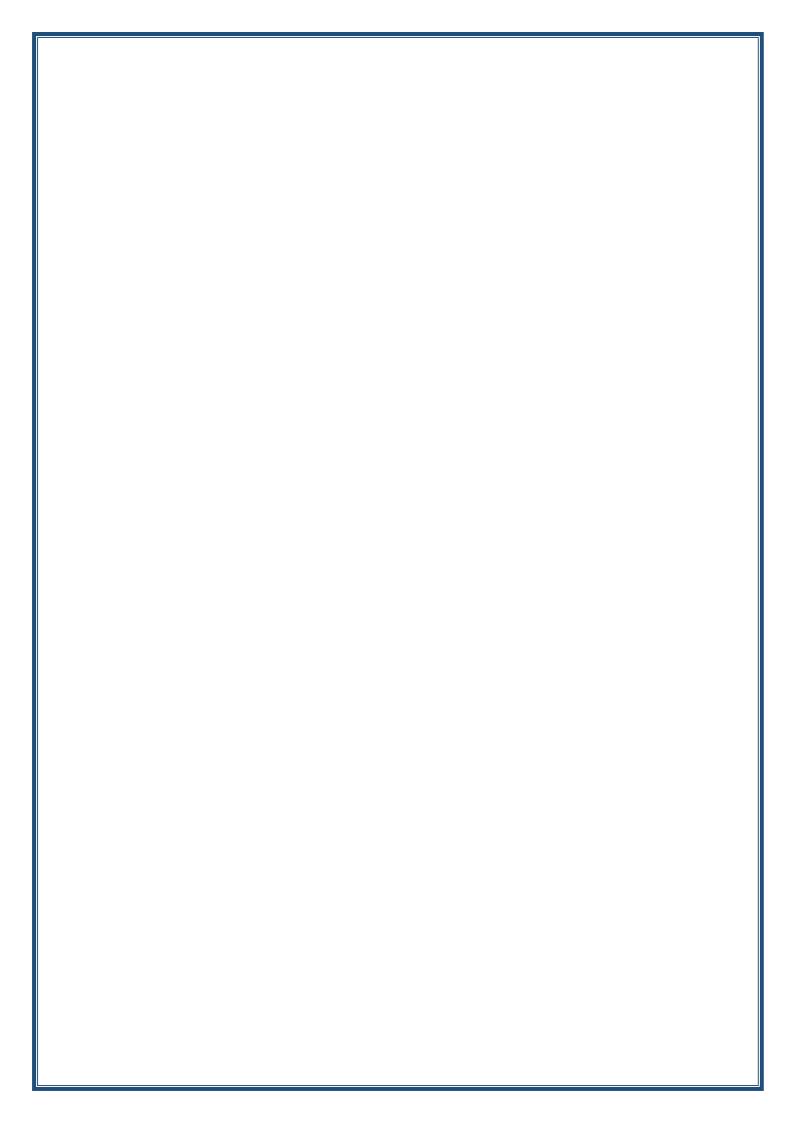
			Pro	gram	Skills	Outl	ine								
							Req	uired	progr	am L	earnin	g outcor	nes		
Year/Level	Course Code	Course Name	Basic or optional		vledge			Skill				Ethics			
		Name		A1	<b>A2</b>	A3	A4	B1	B2	В3	B4	C1	C2	<b>C</b> 3	C4
2024/ 2025		Arabic	Basic	•				•				•			
First, Second, Third, and Fourth Levels		The computer	Basic	•				•				•			
		Democracy and human rights	Basic	•				•				•			
		Basics of psychology	Basic	•				•				•			
		General biology	Basic	•				•				•			
		General chemistry	Basic	•				•				•			
		Logic (mathematics)	Basic	•				•				•			
		English	Basic	•				•				•			
		Principles of basic education	Basic	•				•				•			
		Islamic education	Basic	•				•				•			
		General physics	Basic	•				•				•			
		Human biology	Basic	•				•				•			
		Laboratory security and safety	Basic	•				•				•			
		Arabic	Basic	•				•				•			
		English	Basic	•				•				•			

The Computer	Basic	•			•			•		
Counseling and mental health	Basic	•			•			•		
Wave motion and sound	Basic	•			•			•		
Material properties	Basic	•			•			•		
Classic mechanics	Basic	•			•			•		
Baath Party crimes	Basic	•			•			•		
Educational statistics	Basic	•			•			•		
Educational psychology	Basic	•			•			•		
Thermodynamics	Basic	•			•			•		
Electric and magnetic	Basic	•			•			•		
Calculus	Basic	•			•			•		
Optical physics	Basic	•			•			•		
General teaching methods	Basic	•			•			•		
Educational research methodology	Basic	•			•			•		
Modern physics	Basic	•			•			•		
Environment and health	Basic		•			•			•	

Astronomy sustainable development	Basic		•		•		•	
Measurement and evaluation	Basic		•		•		•	
Curricula and textbooks	Basic		•		•		•	
Electronics science	Basic		•		•		•	
Solid state physics	Basic		•		•		•	
Methods of teaching science	Basic		•		•		•	
Radioactivity	Basic		•		•		•	
Quantum mechanics	Basic		•		•		•	
Arabic literature	Basic		•		•		•	
Professional ethics Educational	Basic		•		•		•	
administration and supervision	Basic		•		•		•	
Practical education (watching)	Basic		•		•		•	
Laser	Basic		•		•		•	
Electromagnetism	Basic		•		•		•	
Nuclear Physics	Basic		•		•		•	

Plasma physics	Basic		•		•		•
Graduation research project	Basic		•		•		•
Application	Basic		•		•		•

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



1. Course Name:

**Headway Plus for Beginner** 

2. Course Code:

3. Semester / Year:

Second Semester / 2024-2025

4. Description Preparation Date:

27/01/2025

5. Available Attendance Forms:

**Traditional place-based classroom methods** 

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

30 Hours/ 2 Units

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

Name: M. K. H. Shahad Email: mkareem@uowasit.edu.iq

8. Course Objectives

- 1-New Headway Plus is the course you can always trust, and constant updates mean the material is always current and with a huge range of components,
  - Its proven methodology,
  - Clear focus on grammar,
  - Balanced, integrated-skills syllabus,
  - Gives them lessons that work in class.
  - 2-Try activities from the unit again.
- 3- Extend their knowledge with extra Reading, Writing, Listening, and Speaking skills practice.
- 4-Test themselves on the primary language from the unit and get instant feedback.
- 5-The English Lecturer offers his students full support both for lesson preparation and in the classroom.
- 6-There are plenty of suggestions and ideas; the English Lecturer exploits most of the materials with weaker students and others as well to use English inside and outside the classroom.

# 9. Teaching and Learning Strategies

#### Strategy

- Each unit has a wide variety of practice activities.
- Students are encouraged to analyze the target language and use it communicatively.
- The primary skills used are speaking and listening, but there is also some reading and writing.
- There are information gap exercises, socialize activities, and a lot of personalized activities.

Motivating interactive activities for Arabic students learning English

## **10. Course Structure**

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
			name	method	
		Outcomes			method
12	30	Cognitive, skillful, communicative, and effective Magnetism	14	-Each unit has a wide variety of practice activitiesStudents are encouraged to analyze the target language and use it communicativelyThe primary skills used are speaking and listening, but there is also some reading and writingThere are information gap exercises, socialize activities, and a lot of personalized activitiesMotivating interactive activities for Arabic students learning English	Written, Oral, Daily Preparation , Class Activity, – Brainstormi ng Question, Attendance , Discipline (in addition to E- Learning)

## 11. Course Evaluation

Twenty for two monthly written exams and twenty for daily preparations and activities. Final exam: sixty marks

# 12. Learning and teaching resources

Required textbooks (curricular books)	New Headway Plus for Beginners. (Textbook)
Primary references (sources)	English Grammar in use.
Recommended books and references	-Oxford Advanced Learner's Dictionary.
(scientific journals, reports)	-Language Level: Beginner, Elementary,
	Pre-Intermediate and Intermediate.
Electronic References, Websites.	Electronic libraries.
	Internet.

- 1. Course Name:- General Physics
- 2. Course Code:
- 3. Semester / Year: Fourth semester / 2024 2025
- 4. Description Preparation Date: 15/1/2025
- 5. Available Attendance Forms:

Classroom + laboratory

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

Theoretical lectures (3 hours) & lab. (2hours)

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

Name: Firas S. MAZYED Email: fsaleem@uowasit.edu.iq

Name: Mohammed J. Ibrahim

#### 8. Course Objectives

## Course Objective

- 1) Developing students' positive attitudes towards understanding the scientific material.
- 2) Achieving the objectives of the educational content through the basic principles of physical measurements and units
- 3) Identifying numerical and directional quantities and their properties
- 4) Studying vectors, their properties and methods of graphical representation
- 5) Identifying kinematics and its types and the relationship between motion and force and studying Newton's laws.
- 6) Defining the basic concepts and laws related to work and energy.

#### 9. Teaching and Learning Strategies

#### Strategy

General and transferable skills (other skills related to employability a personal development).

- 1-The ability to employ skills. Managing class discussion
- 2-The skill of testing a good method
- 3-The skill of choosing the appropriate educational model for student according to individual circumstances
- 4- The skill of mastering all the methods presented in the curriculum in the practical aspect.

10.Course Structure					
Week	Hours	Required Leering Outcome	Unit or Subject name	Learning method	Evaluation method
1-2	٦	Measurements and units	Measurements and units, types of basic and derived units - systems of units - the international system.	Discussion	questions and answers
3-4	٦	Scalar and vector quantities	Vector quantities definition and concept - graphical representation.	Communicati ve + Practical laboratory	Oral Test
5-6	6	Scalar and vector quantities	Vector addition and subtraction		First monthly exam
7-8	6	Scalar and vector quantities	Scalar and vector multiplication - and the resultant	Communicati ve + Practical laboratory	Discussion
9-10	6	Force and motion	Definition and concept of motion - Types of motion - Linear motion - Newton's laws	Communicati ve + Practical laboratory	Daily exam
11-12	6	Force and motion	Law of universal gravitation - mass - free fall - projectile motion	Discussion + Practical laboratory	Discussion
13-14	6	Work and power	Work and power laws	Discussion + Practical laboratory	Oral test
15	6	Energy and Energy types.	Energy and Energy types.	Discussion + Practical laboratory	Second monthly exam

#### 11.Course Evaluation

Activities: 5 Daily exams: 5

First month theoretical exam: 10 Second month theoretical exam: 10

First month practical exam: 5 Second month practical exam: 5

Total: 40 marks Final exam: 60 marks

## 12. Learning and teaching resources

#### Main references

## Book:

- Physics for the first year of geology by Abdul Sattar Jawad.
- Physics for Earth Sciences Students by Farouk Aboudi and Moayed Abdullah.
- General Physics for Non-Physicists by Abdel Salam Abdel Amir

# Electronic patches

- 1 -Lectures for corresponding scientific departments in other Iraqi universities.
- 2- Video lectures through the YouTube platform.

1. Course Name:

Laboratory Safety and Security

2. Course Code:

3. Semester / Year:

Second semester / 2025

4. Description Preparation Date:

28\01\2025

5. Available Attendance Forms:

Classroom

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

30 Hours/ 3 Units

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

Name: Lec. D. Anfal AL KATEEB and MSc. Wessam Haseeb

Email: anfal@uowasit.edu.iq

8. Course Objectives

Learn about the concept of laboratory safety, safety methods, and the most important procedures that must be available, and learn about the international safety card MSDS. Learn about the physical, chemical, and biological risks that laboratory workers may be exposed to, and learn how to confront these risks.

## 9. Teaching and Learning Strategies

#### Strategy

- 1- Introducing students to the importance of laboratory safety and security.
- 2- Developing and enabling students to understand safety topics and how to deal with and reduce risks.
- 3- Identifying the basic and international rules and the most important global regulations that must be available in every laboratory

#### 10. Course Structure

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
			name	method	
		Outcomes			method
1-2	5	Static electricity	Static electricity	Discussion	questions and answers
3-4	5	Definition of safety and security in the laboratory Safety guidelines	The concept of laboratory safety and security The most important laboratory signs and their explanation	Communicative + Practical laboratory	Oral Test
5-6	5	Safety and Security Card Components	MSDS	Discussion + Practical laboratory	First monthly exam
7-8	5	chemical risks	What are dangerous and toxic chemicals and how to deal with them	laboratory	Discussio n
9-10	5	Biological risks	What are biological risks and how to deal with them	Communicative + Practical laboratory	Daily exam
11-12	5	Safety precautions	Informing students of all precautions and how to deal with an accident	Discussion + Practical laboratory	Second month exam
13-14	5	Types of waste in the laboratory	Separation of chemical and biological waste and how to deal with it	Discussion + Practical laboratory	Oral test
		Biological risks and ways to prevent them  Physical risks	Evacuation and ways to evacuate citizens and workers	Discussion	Oral test
15	5				End of semester exam

## 1. Course Evaluation

Oral exam: 5

Daily preparation: 5
Conducting experiments and reports: 10

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

# 2. Learning and teaching resources

	Main references (books)	
	1- International principles of laboratory safety	
	2- World Health Organization (Supporting sources and references ) scientific journals, reports	
-	Electronic patches	-
_		]

1. Course Name:

**Human Biology** 

2. Course Code:

3. Semester / Year:

Second semester / 2025

4. Description Preparation Date:

17-1-2025

5. Available Attendance Forms:

Classroom + laboratory

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

70 Hours/ 4 Units

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

Name: Dr. Sada Jasim Abdulameer Email: <a href="mailto:sabdulameer@uowasit.edu.iq">sabdulameer@uowasit.edu.iq</a>

Name: Zaman Issa Hachim Email: <u>Zaman.Issa@uowasit.edu.iq</u> Name: Manar Naji Hamad Email: <u>Manar.Naji@uowasit.edu.iq</u>

#### 8. Course Objectives

- . Knowledge of human biology with its beginnings, discussion and questioning
- -The main aspects of biology
- - Interrogation presenting activities (laboratory work)
- - Power point presentation for the first written exam
- -Create a lecture presentation for students Digestive system
- Cells Tissues .....
- Respiratory system .....
- Skeletal system

## 9. Teaching and Learning Strategies

#### Strategy

- D General and transferable skills (other skills related to employability and personal development).
- 1-The ability to employ skills. Managing class discussion
- 2-The skill of testing a good method.
- 3-The skill of choosing the appropriate educational model for students according to individual circumstances.
- 4- The skill of mastering all the methods presented in the curriculum in the practical

aspect.	

# 1. Course Evaluation

# 10. Course Structure

Week	Hours	Required Learn	ing Unit or subject	Learning	Evaluation
	1		name	method	
		Outcomes			method
1-2	5	Cognitive, skillful, emotional	Introduction human biology	Discussion & Video lectures discussions	Create a presentation of lectures for studen
3-4	5	Cognitive, skillful, emotional	Skeletal system	Video lectures & discussions	quiz
5-6	5	Cognitive, skillful, emotional	Muscles	Video lectures & discussions	First monthly exam
7-8	5	Cognitive, skillful, emotional	Cells	Video lectures & discussions	quiz
9-10	5	Cognitive, skillful, emotional	Metabolism	Video lectures & discussions	Create a presentation of lectures for student
11-12	5	Cognitive, skillful, emotional	Dioou	Video lectures & discussions	Second month exam
13-14	5	Cognitive, skillful, emotional	Tissues	Video lectures & discussions	Exam
15	5	Cognitive, skillful, emotional	Thermal regulation	Video lectures & discussions	Home work

Oral exam: 5

Daily preparation: 5

Conducting experiments and reports: 10

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

#### 2. Learning and teaching resources

## Main references (books)

- 1. Required textbooks (curricular books, if any)
- 2. Main references (sources) Human biology / Walid Hamid Youssef
- 3. Recommended books and references (scientific
- 4. journals, reports...)
- 5.
- 6. Electronic References, Websites
- 7. Supporting sources and references ) scientific journals, reports (....

#### **Course Evaluation**

Using scientific laboratories to link the theoretical and scientific situation Role playing and interrogation Discussion, the teaching method is not devoid of it Weekly, monthly, daily exams and the end of the years are considered as a scientific situation.

1. Course Name:

Basic principles of education

- 2. Course Code:
- 3. Semester / Year:

second semester / 2025

4. Description Preparation Date:

28-1-2025

5. Available Attendance Forms:

Classroom

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

45 Hours/ 3 Units

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

Name: Assistant teacher. Sara Hajim Abdulsaheb

#### 8. Course Objectives

Developing students' positive attitudes toward the subject

- 2. The objectives of the educational content are achieved in identifying the concept of basic education and its historical development
  - 3. Identify the inputs of the basic education system
  - 4. Give an idea about the goals and characteristics of basic education
  - 5. Getting to know the basic education system in Arab countries
  - 6. Getting to know the basic education system in some foreign countries
  - 7. Basic education in the United States of America
- 8. Identify some of the problems facing education in Iraq and try to remedy them (failure/dropout)
  - 9. Teaching and Learning Strategies

#### Strategy

- 1. Learn about the concepts of education and basic education
- 2. Identify the justifications for basic education
- 3. Knowing and understanding the educational goals of basic education in Arab countries
- 4. Identify the reality of basic education in Iraq
- 5. Identifying Arab and foreign experiences in basic education
- 6. Identify the proposed formulas for basic education
- 7. Students possess many skills, including the skill of effective

teaching

- 8.Lesson management skills in the classroom
- 9.Skills for extracting the new method that can be adopted to achieve the educational level and its goal
- 10. Thinking skills in order to deduce the most harmonious and appropriate method for the teacher
- 11. Critical thinking skills to understand the relationship to basic education between Arab countries
- 12. Creative thinking skills to come up with a new idea for movative education formats in the world

## 10. Course Structure

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
			name	method	
		Outcomes			method
1-2	6	Cognitive, skillful, emotional	The concept of basic education and its historical development	and questioning	Additional questions solved by the student
3-4	6	Cognitive, skillful, emotional	Basic education system inputs Basic education	Collaborative learning	solving exercises
5-6	6	Cognitive, skillful, emotional	goals of basic	Discussion and dialogue	Student's answer
7-8	6	Cognitive, skillful, emotional	Characteristics of basic	Questioning	First written exam
9-10		Cognitive, skillful, emotional	The basic education system in Arab countries	Method of presentation and dialogue	Solve questions
11-12		Cognitive, skillful, emotional	The basic education system in some foreign countries	Presentation and interrogation	Solve additional questions about the topic

		Cognitive, skillful,	Proposals to	Problem	Preparatio
13-14	6	emotional	modify basic	Solving	n and oral
			education in Iraq		exam
15	6	Cognitive, skillful,			Second
		emotional			written
					exam

#### 1. Course Evaluation

Oral and written test : 5 Daily preparation: 5

Conducting experiments and reports: 10

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

## 2. Learning and teaching resources

1.Al-Qaisi, Amer Yas Khudair, 2012, (Basic Education), 1st edition, Baghdad. Iraq

2.Ismail, Muhammad Sadiq, 2011, (Developing Basic Education), 1st edition,

.Al-Arabi Publishing and Distribution, Cairo, Egypt

(...Supporting sources and references (scientific journals, reports, websites

**Academic Program Description Form** 

**University Name: University of Wasit** 

College/Institute: College of Basic Education

**Scientific Department: Department of Arabic Language** 

(Name of Academic or Professional Program: Bachelor (Science

Name of Final Certificate: Bachelor of Science

**Study System: Semester** 

**Description Preparation Date: 2/28/2025** 

File Filling Date: 2/28/2025

Department Head Name: Asst. Dr. Yahya Munim Darwish

**Date** 

**Signature** 

Scientific Assistant Name: Prof. Dr. Salah Abdul Hadi Halil

:Date

**Signature** 

File Verified by

**Quality Assurance and University Performance Division** 

Name of Director of Quality Assurance and University Performance :Division

Date

**Signature** 

# Authorization of the Dean Asst. Dr. Abbas Fadhel Obaid

	1. Course Name
	Arabic Language
	2. Course Code
	3. Semester/Year
S	econd/First 2025
4. Date of preparation of	of this description
	2025/28/2
5. Available for	ms of attendance
1. (	Course Objectives
1- Introduction to the sections of grammar, its topics, literatu	re and its trends.
Study of grammar in the Arabic language, a sermon of the Holy Prophet (PBUH), the lives memorization of poetic a	
.Explaining the scientific material by the subject teacher -1	Strategy
Asking questions to students to broaden their horizons -2	
.and attract their attention	
(Using modern learning methods (presentation, PDF files -3	
Developing the skill of discussion and dialogue in the -4	

# $. \\ class room$

Course structure .1 .1					
Evaluatio n method	Teaching method	Name of unit/course or topic	Required learning outcomes	Watches	The week
Daily Test	Discussio n and dialogue	Parts of speech Noun Verb Letter	Cognitive, skill, emotional	2	1
Interrogation	Discussion and dialogue	Noun Definition Signs	Cognitive, skill, emotional	2	2
Daily Test	Discussion and dialogue	Types of definite nouns Pronouns	Cognitive, skill, emotional	2	3
Discussion	Discussion and dialogue	Demonstrative pronouns Relative pronouns	Cognitive, skill, emotional	2	4
Daily Test	Discussion and dialogue	Definite with Al, Definite with addition	Cognitive, skill, emotional	2	Ţ
Discussion	Discussion and dialogue	Pronoun	Cognitive, skill, emotional	2	(
First month test	Discussion and dialogue	Singular and dual and their declension	Cognitive, skill, emotional	2	7
Daily test	Discussion and dialogue	Sound masculine plural: its conditions and declension	Cognitive, skill, emotional	2	{
Interrogation	Discussion and dialogue	Sound feminine plural: its conditions and declension	Cognitive, skill, emotional	2	Ç
Daily test	Discussion and dialogue	Broken plural and some of its weights	Cognitive, skill, emotional	2	10
Discussion	Discussion and dialogue	The five nouns	Cognitive, skill, emotional	2	13
Daily Test	Discussion	Explanation	Cognitive, skill,	2	12

	and dialogue	and	emotional		
		memorization			
		of Ibn			
		Zaydoun's			
		poem			
Discussion	Discussion	Verses of the Holy	Cognitive, skill,	2	
	and dialogue	Quran (from Surat Al-	emotional		13
		Qamar)			
Second	Discussion	The sermon of the	Cognitive, skill,	2	
Month Test	and dialogue	Holy Prophet (PBUH)	emotional		14
		after the Battle of			
		Hunayn			
Discussion	Discussion	Ibn Zaydoun, his life	Cognitive, skill,	2	
	and dialogue	and his poem (Al-	emotional		15
		Nuniyah)			

# Course Evaluation .2

Oral test: (5) marks

Daily preparation: (5) marks

Reports: (10) marks

Monthly exams: (20) marks

Total: (40) marks

Final exam: (60) marks

# :Learning and teaching resources .3

Grammatical Application / Abdo Al Rajhi .1

Collection of Lessons / Mustafa Ghalayini .2

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



# Academic Program and Course Description Guide

Department of Science
The second phase
Biochemistry
2025- 2024

1. Course Name:						
Biochemistry	Biochemistry					
2. Course Code:	2. Course Code:					
3. Semester / Year	:					
4 / 2						
4. Description Prep	paration Date:					
27/01/2025						
5. Available Attend	ance Forms:					
Presence						
6. Number of Credi	t Hours (Total) / Number of Units (Total)					
30 / 2						
7 Course adminis	trator's name (mention all, if more than one name)					
Name: Dr. Saif A						
	@uowasit.edu.iq					
Eman. Smatioob	e dowasic.cud.iq					
8. Course Objective	S					
	university teacher for basic education schools With high scientific a					
artistic skills.	al much laws and days lawing salutions for them					
S	al problems and developing solutions for them. onal methods and techniques in solving					
9. Teaching and Le						
Strategy						
	1- Introducing the student to the importance of biochemistry.					
	2- Developing students' abilities to understand biochemistry					
	topics.					
	3- Identify the structures of organic materials, as well as clarify					
	the importance of each one within the human body.					
	4- Assigning the student to some group activities and duties. to group activities.					

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluat on
					method
1- 2	2	Introduction to the concept Biochemistry	General introduction	View the lecture	Daily exam
3-4	2	Carbohydrates	Monosaccharides, disaccharides and polysaccharides		
5-6	2	Proteins	Amino acids, peptide bonds		
7 -8	2	Enzymes	Its benefits, types of enzymes		
9-10	2	Lipids	Saturated fats and trans fats		
11-12	2	Hormones	Types of hormones		
13-14	2	Nucleic acids	DNA,RNA		
15	2	Endocrinology	Define and types		
11. 0	Course I	⊥ Evaluation			
- Oral exa	m: 10				
- Daily pr	eparation:	5			

duties: 5

- Monthly exams: 20		
- Total: 40		
- Final exam: 60		
12. Learning a	and Teaching Resources	
Introduction to	biochemistry / Dr. Khawla Ahmed	
Falih		
Basics of bioche	emistry / Dr. Sami Al-Muzaffar	
Introduction to	biochemistry / Dr. Khawla Ahmed	

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



# Academic Program and Course Description Guide

**Department of Science** 

The second phase

Electric and Magnetic 2024 /2025

1. Course Name:

Electric and Magnatic

2. Course Code:

3. Semester / Year:

Fourth semester / 2024/2025

4. Description Preparation Date:

27-1-2025

5. Available Attendance Forms:

Classroom + laboratory

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

70 Hours/ 4 Units

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

Name: Lec. D. Yahya M. Abbas Email: <a href="mailto:yminem@uowasit.edu.iq">yminem@uowasit.edu.iq</a>

#### 8. Course Objectives

Getting to know the concept of electrical and magnetic physics, what is the science of electricity and its relationship to physics, and what are the factors affecting electric and magnetic current, then knowing the physical and magnetic properties of materials, then classifying materials and what are the most important factors affecting the impedance of the material, studying Ohm's law and Kirchhoff's laws, as well as studying magnetism and Its relationship to electric current and the study of Ampere's law in magnetism, as well as Piosvar's law.

#### 9. Teaching and Learning Strategies

#### Strategy

- 1- Introducing students to the importance of electricity and magnetism.
- 2- Developing and enabling students to understand electrical topics and their relationship to magnetism.
- 3- Identify the factors affecting the resistance of the conductor and its relationship to the electric current, as well as the relationship of the electric current to magnetism.

10. Course Structure							
Week	Hours	Required Learning	g Unit or subject	Learning	Evaluation		
			name	method			
		Outcomes			method		
1-2	5	Static electricity	Static electricity	Discussion	questions and		
					answers		
3-4	5	Condencer	Factors affecting	Communicative + Practical	Oral Test		
			the capacitor, how	laboratory			
			to connect	,			
			capacitors, and				
5-6	5	Ohm's law and	calculate power Study of Ohm's	Discussion +	First monthly		
3-0		resistors	Law and how to	Practical	exam		
			connect resistors in	laboratory	CAUIII		
			electrical circuits	1200 01 200 01 9			
7-8	5	Electric current and	Electric current, its	Communicative	Discussion		
		Kirchhoff's law	definition, its unit	+ Practical			
			of measurement,	laboratory			
			and how to				
			calculate it, in				
			addition to studying				
0.10			Kirchhoff's laws		D 11		
9-10	5	Magnetism	Overview +	Communicative + Practical	Daily exam		
			Biosafer Act	laboratory			
11-12	5	Magnetism	Ampère's law	Discussion	Second month		
			2 10 × 10 ×	+ Practical	exam		
				laboratory			
		Magnetism	Magnetic force and	Discussion +	Oral test		
13-14	5		moment	Practical			
				laboratory			
15	5				End of		
					semester		
					exam		

# 1. Course Evaluation

Oral exam: 5

Daily preparation: 5

Conducting experiments and reports: 10 Monthly exams: 20

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

# 2. Learning and teaching resources

Main references (books)

- 1 Bosch Series....Bosch Gear
- 2- Electricity and magnetism.... Dr. Muhammad Jassim Al Issa
- 3- Foundations of electricity and magnetism..... Dr. Rashid Abdul Razzaq Al-Rashed and Dr. Nazim Hassoun Al-Attar
- 4- Basics of electricity and magnetism..... Dr. Yahya Abdel Hamid Al Haj Ali

(....Supporting sources and references (scientific journals, reports

Electronic patches

1. Course Name:

Heat and Thermodynamic

2. Course Code:

3. Semester / Year:

Fourth semester / 2024

4. Description Preparation Date:

2025-1-27

5. Available Attendance Forms:

Classroom + laboratory

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

30 Hours/ 2 Units

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

Name: Lec. Alaa Saady Dawood Email: Alaa.saadi@uowasit.edu.iq

#### 8. Course Objectives

- 1- Developing students' positive attitudes towards understanding the scientific material
- 2 -Achieving the objectives of the educational content by identifying heat, its nature, temperature scales and types
- 3 -Conductivity and thermal conductivity coefficient thermal equilibrium.
- 4 -The effect of heat on materials thermal expansion change of phase of matter freezing and melting.
- 5- Identifying the three laws of thermodynamics, work and energy, and internal and external combustion machines

#### 9. Teaching and Learning Strategies

#### Strategy

- 1 -Knowing heat, its nature and the temperature scale.
- 2 -Identifying the methods of heat transfer and the thermal conductivity coefficient.
- 3 -Understanding radiation, Stefan's law, the amount of heat and thermal equilibrium.
- 4- Identifying the effect of heat on materials thermal expansion phase change of matter freezing and melting latent heat of fusion latent heat of vaporization.

#### 10. Course Structure

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
			name	method	
		Outcomes			method
1. (	Course E	Evaluation			
	l exam: 5	Heat	tnermometers - neat		and
	ly prepara		transfer		answers
		xperiments and reports: 10		Communicative	Oral Test
		ns:T210ermal conductivity	conductivity and	+ Practical	
	al: 40 deg		Stefan's law	laboratory	
5- <b>K</b> in	al ex <b>4</b> m: 6	0 marks The effect of heat on	Thermal expansion -	Discussion	First
		materials	phase change -	+ Practical	monthly
		111111111111111111111111111111111111111	freezing and melting	laboratory	exam
7-8	4	Latent heat of fusion - Latent heat of vaporization	Study the states of matter and latent heat of fusion and vaporization	Communicative + Practical laboratory	Discussio n
9-10	4	Boiling point and Newton's law of cooling	Boiling point and Newton's law of cooling	Discussion + Practical laboratory	Daily exam
11-12	4	Thermodynamic laws	Discussing Newton's Three Laws	Discussion + Practical laboratory	Second month exam
13-14	4	Work – Energy	Work – Energy	Communicative + Practical laboratory	Oral test
15	2				End of
					semester
					exam
					CAMIII

2. Learning and teaching resources
2. Learning and teaching resources
Main references (books)
Main references (books)
1 -Basics of Physics / Bosch
2- Heat and Thermodynamics / Translated by Dr. Mohi El-Din Abbas and Dr.
Hussein El-Sayes

1. Course Name:

Optical physics

- 2. Course Code:
- 3. Semester / Year:

Fourth semester / 2025

4. Description Preparation Date:

27-1-2025

5. Available Attendance Forms:

Classroom + laboratory

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

70 Hours/ 3 Units

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

Name: Lec. Masar abd kaood

Email: Masar.Abd@uowasit.edu.iq

#### 8. Course Objectives

Learn about the concept of optical physics, what optical physics is, its relationship to physics, and the factors affecting light waves, then learn about the optical physics properties of materials, then classify materials, what are the most important factors affecting optical phenomena and theories.

#### 9. Teaching and Learning Strategies

#### Strategy

- 1- Introducing students to the importance of optical physics.
- 2- Developing and enabling students to understand the topics of optical physics.
- 3- Identifying the factors affecting optical physics, as well as the relationship between optical phenomena and optical theories.

# 1. Course Evaluation

# 10. Course Structure

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
			name	method	
		Outcomes	1121112		method
1-2	3	Explanation of optical theories	Explanation of optical theories	Discussion	questions and answers
3-4	5	Haykins theory	Haykins theory	Communicative + Practical laboratory	Oral Test
5-6	5	Jung's experiment	Jung's experiment	Discussion + Practical laboratory	First monthly exam
7-8	5	Fresnel theory	Fresnel theory	Communicative + Practical laboratory	Discussio n
9-10	5	Lloyd's theory and Newton's rings		Communicative + Practical laboratory	Daily exam
11-12	5	Thin film interference		Discussion + Practical laboratory	Second month exam
13-14	5	Diffraction and polarization		Discussion + Practical laboratory	Oral test
15	5				End of semester exam

Oral exam: 5 Daily preparation: 5 Conducting experiments and reports: 10 Monthly exams: 20 Total: 40 degrees Final exam: 60 marks 2. Learning and teaching resources Main References (Books) 1- Bosch Series .... Bosch Gerd 2-Optical Physics Supporting sources and references (scientific journals, reports, etc.)

computer							
2. Course Code:							
3. Semester / Year:							
Fourth semester / 2025							
4. Description Preparation Date:							
28-1-2025							
5. Available Attendance Forms:							
Classroom + laboratory							
6. Number of Credit Hours (Total) / Number of Units (Total)							
42 Hours/ 2 Units							
7. Course administrator's name (mention all, if more than one nan	ne)						
Name: Sara khlaf joad, Lec.D.Hanaa abdulhuseein shati, Insam Gl	hazi Nassif						
8. Course Objectives							
Getting to know the concept of computers networks, what is the Artificial i and what are the advantage of its study, getting to know of this study in most 9. Teaching and Learning Strategies	_						
A1- Historically, knowledge of the development of the computer networks.  A2-Learning about Artificial intelligent A3- Know how to use it A4- Get to know about Artificial intelligent in learning A5- Get to know about Artificial intelligent in health field A6- Get to know about Artificial intelligent in transport							
A5- Get to know about Artificial intelligent in health fiel	ld						
A5- Get to know about Artificial intelligent in health fiel	ld						
A5- Get to know about Artificial intelligent in health fiel A6- Get to know about Artificial intelligent in transport  10. Course Structure	ld Evaluation						
A5- Get to know about Artificial intelligent in health fiel A6- Get to know about Artificial intelligent in transport  10. Course Structure							

1-2	6	Static electricity	Static electricity	Discussion	questions and answers
3-4	6	background	Introduction to computers and network	Discussion and questioning	Oral Test
5-6	6	Hardware & software	Artificial intelligent with learning	Discussion + Practical laboratory	First monthly exam
7-8	6	Output devices	Artificial intelligent in health field	Communicative + Practical laboratory	Discussio n
9-10	6	How to use it	Artificial intelligent in transports	Communicative + Practical laboratory	Daily exam
11-12	6	Computers interrupts	Some of errors of computers and how to fix it	Discussion + Practical laboratory	Second month exam
13-14	6	How to use it	Artificial intelligent with mobile , Artificial intelligent in health	Discussion + Practical laboratory	Oral test
15					Oral test

# 11.Course Evaluation

Oral Exam: 5

Daily Preparation: 5

Practical: 10

Monthly Exams: 20

Total: 40 marks

Final Exam: 40 marks

Practical: 20

# 1. Learning and teaching resources

prescribed book is Computer Basics and Office Applications / Author Dr. Ghassan

The book Education and Future Challenges in Light of the Philosophy of Artificial Intelligence / Author Dr. Magdy Salah

1. Course Name: Calculus 2. Course Code: 3. Semester / Year: Fourth semester / 2025 4. Description Preparation Date: 26-1-2025 5. Available Attendance Forms: Classroom 6. Number of Credit Hours (Total) / Number of Units (Total) 28 Hours/ 2 Units 7. Course administrator's name (mention all, if more than one name) Name: Lec. D. Hanaa Abdulhussein Shati 8. Course Objectives 1. Developing students' positive attitudes toward the subject 2. The objectives of the educational content are achieved in identifying functions and their types absolute value function, equal functions, function composition, and function graphing 3. Knowing the goal and theorems about the goals 4. Identify continuity, its conditions and theorems 5. Learn about derivation and the rules of derivation 6. Identify integration and the rules of definite and indefinite integration 7. Learn about physical applications on integration and differentiation 9. Teaching and Learning Strategies Strategy 1- Explaining the scientific material to students in detail. 2- Students' participation in solving mathematical problems 3- Discussion and dialogue about vocabulary related to the topic.

# 10. Course Structure

Week	Hours	Required Lea	rning	Unit or subject	Learning	Evaluation
				name	method	
	'	Outcomes				
1-2	4	Cognitive, skillful, emotional		earn about functions, en and odd functions	Discussion and questioning	Solving exercises and additional questions by the student
3-4	4	Cognitive, skillful, emotional		ypes of functions and nction graphing	Cooperative discussion	Student's answer
5-6	4	Cognitive, skillful, emotional		he starting point and the nge of the function	Discussion with examples	Solving exercises
7-8	4	Cognitive, skillful, emotional	fu	he absolute value nction and the equal nctions	discussion	Solving the first written exam and test
9-10	4	Cognitive, skillful, emotional	co	lgebra of functions, omposition of functions ad limit	Discussion and questioning	Solving additional questions on the topic
11-12	4	Cognitive, skillful, emotional		ontinuity and fferentiation	Discussion and dialogue with examples	Solving exercises
13-14	4	Cognitive, skillful, emotional	in	efinite and indefinite tegration and their oplications	Cooperation and solving exercises	Solving exercises and a second written exam
15	4					End of semester exam

# 1. Course Evaluation

Oral exam: 5

Daily preparation: 10

Solve the exercises and share: 5

Monthly exams: 20

Total: 40 degrees

Final exam: 60 marks

# 2. Learning and teaching resources

- الرياضيات المنتهية تأليف د. على عزيز على وعبدالرزاق على الحسوان ونبيهة مجد جواد -1
- جي. بيرسون .حسبان التفاضل والتكامل مع الهندسة التحليلية جزء ١ اى- -2
- 3- www. Freescience.info/math
- 4- PROBLEMS IN HIGHER MATHEMATICS, V.P.MINORSKY
- 5- Calculus, STANLEYI. GPOSSMAN ACADEMIC Press, New york

Electronic patches

1. Course Name:					
Invertebrates					
2. Course Code:					
3. Semester / Year:					
Fourth semester / 2025					
4. Description Preparation Date:					
2-2-2025					
5. Available Attendance Forms:					
Classroom + laboratory					
6. Number of Credit Hours (Total) / Number of Units (Total)					
70 Hours/ 4 Units					
7. Course administrator's name (mention all, if more than one nam	ne)				
Name: Lec. Alaa Sabah Aleewi Email: alaasabah.uowasit.edu.iq					
8. Course Objectives					
Getting to know the concept of Invertebrates , important, properties, of invertebrates phylum .	taxonomy				
9. Teaching and Learning Strategies					
1- Introducing students to the importance of Invertebrates. 2- Student of taxonomy of Invertebrates Phylum . 3- Identify the Important of Invertebrates Phylum .					
10. Course Structure					
Week Hours Required Learning Unit or subject Learning E	Evaluation				
Week Hours Required Learning Unit or subject Learning name method	Evaluation				

1-2	8	Introduction of	Introduction,Propert	Discussion	questions
1-2	0	Invertebrates	•	Discussion	and
		·			answers
1 /	<u></u>		Protozoa, Taxonomy,		answers
1. (	Course E	Evaluation			
3-4	5	Porifea and Cnidaria	Properties,	Communicative	Oral Test
			taxonomy,	+ Practical	
			Important	laboratory	
5-6	8	Platyhelminthes, Asc	Properties,	Discussion +	First
		helminthes	taxonomy,	Practical	monthly
			Important	laboratory	exam
				-	
7-8	8	First monthly exam			
0.10	0	A 111 A 1 1			D '11
9-10	8	Annelida, Arthropod	Properties,	Communicative + Practical	Daily
		a	taxonomy,		exam
			Important	laboratory	
11-12	8	Insecta,	Properties,	Discussion	Second
			taxonomy,	+ Practical	month
			Important	laboratory	exam
		Second month exam			
13-14	8				
1.5	1				Endof
15	4				End of
					semester
					exam

Oral exam: 5 Daily preparation: 5 Conducting experiments and reports: Monthly exams: 20 Total: 40 degrees Final exam: 60 marks	10
2. Learning and teaching resource	ees
Main references (books)	1 – Inverteberates Mahdi Baban 2- Invertebrates Dr. Abd- Alazez Mohamad et.al

1. Course Name:

VIROLOGY

- 2. Course Code:
- 3. Semester / Year:

Fourth semester / 2025

4. Description Preparation Date:

17-1-2025

5. Available Attendance Forms:

Classroom + laboratory

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

30 Hours/ 2 Units

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

Name: assist prof .dr. zinah mohammed hammad

Email: zmuhammed@uowasit.edu.iq

8. Course Objectives

This course provides an introduction to virology, its nature and characteristics. Topics in this course include: • Identify the basic characteristics and differences between viral families. • Identify the basics of virus reproduction. • Understand the structure and classification of viruses. • Learn how viral infections occur. • Identify methods of detecting viruses, the relationship between viruses and other living organisms and immune types.

9. Teaching and Learning Strategies

#### Strategy

- -\Introducing students to the importance of virology.
- Developing and enabling students to understand the topics of viruses and how viral infection occurs.
- 3- Identifying the structure and classification of viruses

#### 10. Course Structure

Week	Hours	Required Learning	g Unit or subject	Learning	Evaluation			
			name	method				
1.	Outcomes  1. Course Evaluation							
	4	Chemistry of virus	A Brief History of Viruses Virus Chemistry and DNA		answers			
3-4	4	Viral group	Major viral groups (animal and plant)	Communicative + Practical laboratory	Oral Test			
5-6	4	General characteristics of the virus	Classification of viruses according to structure	Discussion + Practical laboratory	First monthly exam			
7-8	4	Virus proliferation	Methods of virus reproduction	Communicative + Practical laboratory	Discussio n			
9-10	4	Influencing factors.	The effect of physical and chemical factors on viruses.	Communicative + Practical laboratory	Daily exam			
11-12	4	virus pathogenesis	Stages of virus pathogenesis	Discussion + Practical laboratory	Second month exam			
13-14	4	The most important viruses that cause disease in humans	composition and methods of infection	Discussion + Practical laboratory	Oral test			
15	4				End of semester exam			

Oral exam: 5

Daily preparation: 5

Conducting experiments and reports: 10

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

# 2. Learning and teaching resources

Main references (books)

Concise Review of Veterinary ) Microbiology; 2nd Edition; P J Quinn, B K Markey, F C Leonard, E S FitzPatrick, S Fanning. (2016)

Veterinary Virology; 3rd edition; Frederick A Murphy, E Paul J Gibbs, Marian C Horzine Michael J Studdert. (1999).

(....Supporting sources and references ) scientific journals, reports

1. Course Name:

Histology & Emperology

2. Course Code:

3. Semester / Year:

Second Semester / 2025

4. Description Preparation Date:

2025-1-26

5. Available Attendance Forms:

Classroom

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

28 Hours/ 2 Units

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

Name: Asst. Lec Huda Hussein Eid ALJurani Asst. Lect. Zamin Issa Hajim (practical

Email: heid @uowasit edu.iq .com

#### Course Objectives

- A1- Developing students' positive attitudes towards tissues and embryos
- 1. The objectives of the educational content are achieved in learning about histology and embryology. It is the science that studies the stages of growth, formation and differentiation that take place in living organisms from the beginning (the first cell or zygote) until they become fully formed animals with complex structures similar to their parents, fully mature and approved in Her life is completely dependent on herself.
- 2. The term histology and histology (a compound of the Greek words (1) histo "tissue" and λογία logia anatomy), which is the study of microscopic anatomy
- 3. For cells and tissues of plants and animals. It is based on examining a thin slice (section) of tissue under a microscope or on an electron microscope. The use of histological stains often enhances the ability to visualize or quantify microstructural anisotropy. Histology is an essential tool of biology and medicine
- 4. A2 Embryology is the study of the individual's life cycle from fertilization to sexual maturity, and that mutation, hatching, and birth are only signs that indicate the end of one stage of development and the beginning of another stage in a series of developments in the individual's life.
  - 3- Embryology is considered an important "auxiliary" factor to understanding anatomy

# 9. Teaching and Learning Strategies

#### Strategy

- D General and transferable skills (other skills related to employability nd personal development).
- D1-The ability to employ skills. Managing class discussion
- D2-The skill of testing a good method
- D3-The skill of choosing the appropriate educational model for students coording to individual circumstances

D4- The skill of mastering all the methods presented in the curriculum in the practical aspect

#### 10. Course Structure

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
			name	method	
		Outcomes			method
1-2	2	kowledge of histology and embryology with its beginnings, discussion and questioning	kowledge of histology and embryology with its beginnings, discussion and questioning	Discussion	questions and answers
3-4	2	manifestations of	Interrogation presenting activities (laboratory work)	Communicative	Oral Test
5-6	2	Stages of embryonic formation in animals and also types of tissues	The fate map and gastric formation of the interrogated frog	Discussion	First monthly exam
7-8	2	Stages of formation of the frog embryo. Diploidy in the frog	Stages of embryonic formation in animals and also types of tissues	Communicative	Discussion
9-10	2	Stages of formation of the frog embryo. Diploidy in the frog		Communicative	Daily exam
11-12	2	• •	Epithelial tissue connective tissue	Discussion	Second month exam

			nerve tissue muscle tissue		
13-14	2	Embryology and its branches Human	development from fertilization	Discussion	Oral test
15		Cleavage in frogs, chickens, and spears Cleavage in frogs, chickens, and spears	Stages of formation of the frog embryo. Diploidy in the frog		End of semester exam

#### 1. Course Evaluation

Oral exam: 5

Daily preparation: 5

Daily exams and reports: 10

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

### 2. Learning and teaching resources

Main references (books)

- 1 –Embryo Research UK philosophy and ethics website discussing the ethics of embryology
- 2- A squamous cell carcinoma with a Saint Valentine's day message". Int J Surg Pathol. DOI:10.1177/1066896911434768. PMID:2228765
- 3- Histology book
- 4- Emperology book

(Supporting sources and references (scientific journals, reports)

1. Course Name: Crimes of the Baath Party regime in Iraq 2. Course Code: 3. Semester / Year: Fourth semester / 2025 4. Description Preparation Date: 8-2-2025 5. Available Attendance Forms: Classroom 6. Number of Credit Hours (Total) / Number of Units (Total) 30 Hours/2 Units 7. Course administrator's name (mention all, if more than one name) Name: Assistant Professor Ahlam Mohi Naoum Marji Email: ahlam.muhay@uowasit.edu.iq 8. Course Objectives The student's familiarity with the most important events and crimes committed by the Baath regime in Iraq during its rule of Iraq 2. Identify the types of crimes and violations against humanity Study and know the penalties and decisions issued by the Iraqi Supreme Criminal Court against criminals from the Baath Party and its henchmen 4. The student's knowledge of the most important crimes and violations committed by the Baath Party members and the numbers of victims and their burial places in mass graves and prisons 5. Knowledge of the penalties and decisions issued by the Iraqi Supreme Criminal Court and the prison terms and penalties against each accused who participated in the killing and torture of the Iraqi people, each according to his role in these crimes 9. Teaching and Learning Strategies

The lecture is given by the professor, followed by a question and answer session, followed by discussion and expression of different

Strategy

	opinions	about	the	scientific	material	and	discussion	of its	validity.
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Week	Hours	Required Learnin	g Unit or subject	Learning	Evaluation
			name	method	
		Outcomes			method
1-2	4	Skill and knowledge	The concept of crimes and their types	Discussion and Dialogue	questions and answers
		Skill and knowledge	Definition of types of international crimes	Communicati on + Dialogue	
		Skill and knowledge	Decisions issued by the Iraqi Supreme Criminal Court 2005	Discussion and Dialogue	
		Skill and knowledge	Psychological and social crimes and their effects and violations of the Baathist regime in Iraq	Communicati on + Discussion	
		Skill and knowledge	Militarization of society and violations of Iraqi laws	Communicati on + Dialogue	
		Skill and knowledge	Environmental crimes and locations of Baathist regime prisons in Iraq		

		Skill and knowledge	Destruction of cities and villages, draining marshes and bulldozing orchards	Discussion and Dialogue  Discussion and Dialogue	
		Skill and knowledge	Crimes of mass graves and their locations and genocide	Communicati	
				on and Discussion	
3-4	4				Oral Test
5-6	4				First monthly exam
7-8	4				Discussion
9-10	4				Daily exam
11-12	4				Second month exam
13-14	4				Oral test
15	2				End of semester exam

#### 1. Evaluation

Oral exam: 5

Daily preparation: 5

Conducting experiments and reports: 10

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

#### 2. Learning and teaching resources

Main references (books)

The curriculum book on the crimes of the Baath regime in Iraq / a study course for all government universities

Websites, electronic references, Internet sites <a href="https://www.hrw.org">https://www.hrw.org</a>

(....Supporting sources and references ) scientific journals, reports

Electronic patches

#### 1. Course Name:

Solid state physics

#### 2. CourseCode:

#### 3. Semester/Year:

Sixth semester / 2025

#### 4. Description Preparation Date:

27-1-2025

#### 5. Available Attendance Forms:

Classroom + electronic Classroom

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

45 Hours/ 3 Units

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

Name: Prof. Dr. Ghazi K. Saeed Email: <u>gkamal@uowasit.edu.iq</u>

#### 8. Course Objectives

Developing students' positive attitudes towards matter and what solid state physics is, achieving the objectives of the educational content: achieving the objectives of the educational content in identifying the science of solid state physics, which is concerned with studying materials science in terms of the compositional and microscopic structure of matter, and identifying the types of solid materials, and the types of bonding bonds. Solid materials and the seven crystalline systems, understanding and comprehending topics related to solid physics, getting to know the scientific terminology specific to the course, understanding the crystalline structure and distinguishing it from random materials, studying the laws related to the topic, solving examples on the topic, solving various questions about the topic.

#### 9. Teaching and Learning Strategies

#### Strategy

- 1- Introducing students to the importance of solid state physics.
- 2- Developing and enabling students to understand the topics of solid state physics of crystalline and non-crystalline materials.
- 3- Identify the seven crystal systems and the structures of Bravais

10. Course Structure						
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation	
1.	Course 1	Evaluation	name	method		
		Outcomes			method	
1-2	6	Crystalline and non- crystalline solids, solids are interconnected through the type of bonds	The difference between crystalline and amorphous materials, and the type of bonds		questions and answers	
3-4	6	Different crystal patterns, crystal systems	Crystals are one- dimensional, two- dimensional, and three- dimensional	Discussion and dialogue	questions and answers	
5-6	6	Basic crystallographic systems, Bravias structures	The seven crystalline systems, the four types of Bravias structures	Discussion and dialogue	questions and answers	
7-8	6	Basic crystallographic systems, Bravias structures	The seven crystalline systems, the four types of Bravias structures	Discussion and dialogue	questions and answers First month exam	
9-10	6	Miller Indices	Calculate Miller Indices for different systems and for many examples	Discussion and dialogue	questions and answers	
11-12	5	Filling factor	Filling factor for simple cubic, facet-centered, and body-centered systems	Discussion and dialogue	questions and answers, daily exam	
13-14	6	Bragg's law and examination of materials	Bragg's law and the concept of X-rays	Discussion and dialogue	Questions and answers, second month exam	
15	3	Raman phenomenon	Raman phenomenon and its applications	Discussion and dialogue	questions and answers	

Oral exam: 5

Daily preparation: 5

Activities, scientific reports, and attendance: 10

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

## 2. Learning and teaching resources

Main references (books)

- Modern Physics book / Muhammad Ahmed Al-Jubouri
- Solid State Physics book / Kittle
- Rigid body physics / Fawzi Ghaleb Awad, 2012

-Supporting sources and references (scientific journals, reports

Electronic patches

1. Course Name:

Electronics

- 2. Course Code:
- 3. Semester / Year:

6th semester / 2025

4. Description Preparation Date:

27-1-2025

5. Available Attendance Forms:

Classroom + laboratory

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

70 Hours/ 3 Units

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

Name: Lec. Masar abd kaood Email: Masar.Abd@uowasit.edu.iq

#### 8. Course Objectives

Learn about ionic and thermal emission, which is concerned with the study of electronics that enables the relationship between binary and ternary, and study the importance of this science and the relationship of physics to other sciences, as well as learn about the types of donor and acceptor crystals that came as a result of discoveries, experiments and efforts of a large number of those working in science.

#### 9. Teaching and Learning Strategies

#### Strategy

- 1-Developing students' positive attitudes towards the subject
- 2- Achieving the objectives of the educational content in identifying the ionic and thermal emission that is concerned with the study of electronics that enables the relationship between the diode and the triode and studying the importance of this science and the

relationship of physics to other sciences

3-Explaining the transistor and its types and the concept of its

## 1. Course Evaluation

- Explaining the basic amplifiers

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation				
			name	method					
		Outcomes			method				
1-2	3	Ion emission	Ion emission	Discussion	questions and answers				
3-4	3	Semiconductors	Semiconductors	Communicative + Practical laboratory	Oral Test				
5-6	3	Transistors	Transistors	Discussion + Practical laboratory	First monthly exam				
7-8	3	Feedback	Feedback	Communicative + Practical laboratory	Discussio n				
9-10	3	Wave Oscillations	Wave Oscillations	Communicative + Practical laboratory	Daily exam				
11-12	3	Basic Amplifiers	Basic Amplifiers	Discussion + Practical laboratory	Second month exam				
13-14	3	Electrical Conductivity	Electrical Conductivity	Discussion + Practical laboratory	Oral test				
15	3				End of semester exam				

Daily preparatio	n: 5
Conducting expe	eriments and reports: 10
Monthly exams:	20
Total: 40 degree Final exam: 60 r	S mortes
rmai exam: ou i	пагкѕ
2. Learning ar	nd teaching resources
Main Referen	nces (Books)
Electronics	
Supporting cour	ces and references (scientific journals, reports, etc.)
apporting sour	ces and references (scientific journals, reports, etc.)

1. Course Name				
Curricula and Textbooks				
2. Course Code				
3. Semester/Year				
27-1-2025				
Available attendance forms				
(Number of study hours (total) / Number of units (total				
urs / 4 units 30	l			
(Name of the course administrator (if more than one name is mention	ea			
. Abdul Zahra Kazar Jader Youssef				
Abdel-zahraQzar@uowasit.edu.iq				
Email				
1. Course objectives .				
1. Building advanced competencies in critical reading, analytical writing,	and			
.quantitative thinking, with a focus on integrating these skills across discip	olines			
2. Enabling students to apply scientific research skills to solve problems	s in a			
.systematic manner, by providing advanced tools and methods				
3.Enhancing students' ability to manage academic and professional proje	cts using			
.creative thinking techniques				
4. Focusing on developing effective communication and negotiation skills as part of				
the competencies necessary for professional success				
Teaching and learning strategies				
	Stratogy			
<ol> <li>Enabling students to define their educational goals</li> <li>Using different learning resources such as books, articles and digital</li> </ol>	Strategy			
.sources				

3.Enhancing time management skills and personal effort

#### :Collaborative learning

4..Working in groups to exchange ideas and experiences

Developing leadership, negotiation and conflict resolution skills -1

5.

#### 1. Course structure

e of Unit or Topic	e of Unit or	e of Unit or Topic	e of Unit or Topic	e of	e of Unit or
Learning Method	Topic Learning	Learning Method	Learning Method	Unit or	Topic Learning
Evaluation	Method	Evaluation Method	Evaluation Method	Topic	Method
Method	Evaluation			Learnin	Evaluation
	Method			g	Method
				Metho	
				d	
				Evaluat	
				ion	
				Metho	
				d	
First-Second	First-Second	First-Second	First-Second	First-	First-Second
				Second	

#### 1. Course Evaluation

Oral Exam: 5

Daily Preparation: 5

Daily Exams: 5

Activities: 5

Monthly Exams: 20

Total: 40 marks

Final Exam: 60 marks

### 1 Learning and teaching resources

urriculum and School Book ..... by Dr. Dawood Abdul Salam -(Main References (Books Sabry and Zainab Hamza Raji

rabic Language, Its Curricula and Teaching Methods ..... by Dr. Taha Hussein Al-Dulaimi and Suad Abdullah Abbas Al-Waili

(.Supporting Sources and References (Educational Magazines, Reports, and Research

1. Course Name:

Plant Taxonomy

2. Course Code:

3. Semester / Year:

Six semester / 2025

4. Description Preparation Date:

27-1-2025

5. Available Attendance Forms:

Classroom

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

30 Hours/ 2 Units

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

Name: Asst. Lec Hanan Hameed Atiyah AlQaragholy

Email: Hanan.Hamid@uowasit.edu.iq

#### 8. Course Objectives

- The main goal of plant classification is to try to find a method or system for placing plants in groups based on the similarities and genetic relationships that link them to facilitate the task of studying them.
- Giving a scientific name for each new plant discovered, according to international rules of plant nomenclature.
  - 9. Teaching and Learning Strategies

#### Strategy

- 1- Introducing students to the importance of plant classification.
- 2- Develop and enable students to know the types of plants and the ystems used to group plants
- 3- What is the correct way to name plants and what is the relationship of plant taxonomy to other sciences.

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation	
			name	method		

Taxonomy			Outcomes			method
Seed plants	1-2	4	Taxonomy		Discussion	questions and
3-4   4   Seed plants   Know the types of seed plants   Discussion and Communicative					and	answers
Seed plants				taxonomy	Communicative	
Second month exam   Communicative	3-4	4	Seed plants	Know the types of	Discussion	Oral Test
5-6				seed plants		
Leaf veining of plant leaves, Knowing the types of venation in plant leaves  7-8 3 First monthly exam  9-10 4 Flower Know the types of flowers  The pollination of pollination and the factors that help in pollination. How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  13-14 3 Second month exam  Leaf veining of plant leaves, Knowing the types of venation in plant leaves  First monthly exam  Discussion and Communicative  Discussion and Communicative  Discussion and Communicative  Second month exam  Second month exam  End of semester						
Knowing the types of venation in plant leaves	5-6	4			Discussion	questions and
7-8 3 First monthly exam  9-10 4 Flower Know the types of flowers  11-12 4 Pollination , Knowing the types of pollination and the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  13-14 3 Second month exam  First monthly exam  First monthly exam  Discussion and Communicative  Discussion and Communicative  Second month exam  Second month exam  First monthly exam  First monthly exam  Secund monthly exam  First monthly exam  Daily exam  Second month exam  First monthly exam  Secund monthly exam  First monthly exam  Daily exam  Second month exam  First monthly exam  Secund monthly exam  First monthly exam  Daily exam  Second month exam  First monthly exam  Daily exam  Second monthly exam  First monthly exam  First monthly exam  Daily exam  Second monthly exam  First monthly exam  Daily exam  Second monthly exam  First monthly exam  Discussion  and  Communicative  Second month exam  First monthly exam  Daily exam  First monthly exam  Daily exam  End of semester			Leaf veining	of plant leaves,		answers
T-8   3   First monthly exam   First monthly exam   First monthly exam   Pollonation   Discussion and Communicative   Commun				Knowing the types	Communicative	
7-8 3 First monthly exam  9-10 4 Flower Know the types of flowers  11-12 4 Pollination , Knowing the types of pollination and the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  13-14 3 Second month exam  15 3 End of semester				of venation in plant		
9-10 4 Flower Know the types of flowers  Know the types of flowers  I1-12 4 Pollination , Knowing the types of pollination and the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  Second month exam  13-14 3 End of semester				leaves		
9-10 4 Flower Know the types of flowers    Second month exam   Second month exam   Figure 1   Flower	7-8	3	First monthly exam			First monthly
flowers  flowers  and Communicative  Nowing the types of pollination and the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  13-14  Second month exam  End of semester						exam
flowers  flowers  and Communicative  Nowing the types of pollination and the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  13-14  Second month exam  End of semester	9-10	4	Flower	Know the types of	Discussion	Daily exam
11-12 4 Pollination , Knowing the types of pollination and the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  13-14 3 Second month exam  End of semester				• •		
11-12 4 Pollination , Knowing the types of pollination and the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  13-14 3 Second month exam  End of semester						
Fertilization of pollination and the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  Second month exam  13-14 3 End of semester	11-12	4	Pollination .	Knowing the types	Discussion	
Fertilization the factors that help in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  Second month exam  End of semester		•	,			
in pollination, How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  13-14 3 End of semester			Fertilization	_		
How does the fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  Second month exam  End of semester			1 0101112001011	1		
fertilization process occur in plants and what are the factors that help in the success of the process  Second month exam  13-14 3 Second month exam  End of semester				_		
occur in plants and what are the factors that help in the success of the process  Second month exam  Second month exam  End of semester						
what are the factors that help in the success of the process  Second month exam  13-14 3 End of semester						
that help in the success of the process  Second month exam  13-14 3 End of semester						
success of the process  Second month exam  13-14 3 End of semester						
Second month exam  13-14 3 Second month exam  15 3 End of semester				_		
Second month exam  Second month exam  13-14 3  End of semester						
13-14 3 exam  15 3 End of semester			Second month evan	process		Second month
15 3 End of semester	13_1/	3	Second month cauli			
semester	13-14	J				CAAIII
semester	15	3				End of
	1.5	3				
						CAAIII

1. Course Evaluation
Oral exam: 5 Daily preparation: 5 Daily exams and reports: 10 Monthly exams: 20 Total: 40 degrees Final exam: 60 marks
2. Learning and teaching resources
Main references (books)
1- Dr. Areej Abdel Sattar
2- Dr . Please Fadel Hamdi
(Supporting sources and references (scientific journals, reports)

1. Course Name:

Methods of teaching science

- 2. Course Code:
- 3. Semester / Year:

Sixth semester / 2025

4. Description Preparation Date:

27-1-2025

5. Available Attendance Forms:

Classroom

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

28 Hours/ 2 Units

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

Name: M.D. Jaafar Khamat Jalo Email: drjaafark@gmail.com

#### 8. Course Objectives

Identifying the nature of science, its characteristics, and cognitive levels, introducing learners to the general and specific objectives of teaching science, how to formulate behavioral objectives, and how to plan various types of teaching, quarterly and daily, introducing them to the most important teaching skills and competencies of the teacher, his duties and rights, and introducing them to the most important teaching methods used in teaching science at the primary stage.

#### 9. Teaching and Learning Strategies

#### Strategy

Using various teaching strategies such as

Dialogue and discussion 2- Investigation 3- Exploration 4- Brainstorming 5- Interrogation

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
			name	method	
		Outcomes			method
First / Second	4	Knowing the nature of science, its	the nature of science	Dialogue and discussion.	Asking questions
Second		interpretation, and the		discussion.	questions
		characteristics of			
Third /	4	Knowing the	The general goals	questioning	Asking
Fourth		general goals of	of teaching science		questions
		teaching science	The educational goals are		
Fifth /	4	Knowing the types	competencies and	presentation	discussion
Sixth		of teaching teaching competencies	their dimensions		
Seventh /	4	Knowing the plans,	teaching planning,	discussion	a home
Eighth		their types, and their			activity about
		importance, ,			the daily plan
Ninth/Te	4	Dimensions of	learning and its	learning	Asking
nth		effective classroom	characteristics Effective classroom	Lecture	questions
Eleventh	4	Knowing the steps	used in teaching	Discussion	Applying
/ Twelfth		of teaching methods,	science - laboratory		methods in the
		their advantages and	experimentation		classroom
		importance Teaching	•		
		methods	experiments		
Thirteent	4	Knowing the steps	the historical	recitation	applying the
h /		of teaching methods,	method - the		methods in the
Fourteent		their advantages and	scientific story - the		classroom
h		importance	method of		
			exploration		

#### 1. Course Evaluation

Oral exam: 5

Daily preparation: 5
Practical activities: 10
Monthly exams: 20
Total: 40 degrees
Final exam: 60 marks

#### 2. Learning and teaching resources

Cognitive learning and teaching strategies / Prof. Dr. Youssef Qatami

Active learning strategies / Prof. Dr. Ambo Saidi - Hoda bint Ali Al Hosaniyah

Scientific education and science teaching / Prof. Dr. Muhammad Al-Sayed Ali

Methods of teaching educational and psychological sciences / Prof. Dr. Anwar Hussein

Abdel Rahman, Prof. Dr. Falah Al-Safi

Supporting sources and references (scientific journals, reports...)

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



# Academic Program and Course Description Guide

## Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and	d terminology:		
Academic Pro	gram Description: The	e academic program	n description provides a
brief summary	of its vision, mission	n and objectives,	including an accurate
		2 ———	
		_	

description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision:</u> An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission:</u> Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

<u>Program Objectives:</u> They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum Structure:</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

**Learning Outcomes:** A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

<u>Teaching and learning strategies</u>: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

#### **Academic Program Description Form**

University Name: .	wassit
Faculty/Institute: c	college of basic education

Scientific Department: .science						
Academic or Professional Program Name: baclloeios						
Final Certificate Name: .scientific academy  Academic System: semester						
						Description Preparation Date: 27-1-2025
File Completion Date: 27-1-2025						
Signature:	Signature:					
Head of Department Name:	Scientific Associate Name:					
Date:	Date:					
The file is checked by:						
Department of Quality Assurance and U	Jniversity Performance					
Director of the Quality Assurance and U	·					
Date:	,					
Signature:						
	Approval of the Dean					
1 Program Vision						
1. Program Vision						

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

#### 2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

#### 3. Program Objectives

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

#### 4. Program Accreditation

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

#### 5. Other external influences

Is there a sponsor for the program?

#### 6. Program Structure

Number of	Credit hours	Percentage	Reviews*
Courses			
yes	3		basic
-			
	Courses	Courses	Courses

<sup>\*</sup> This can include notes whether the course is basic or optional.

#### 7. Program Description

Year/Level	Course Code	Course Name	Credit Hours		
2025-2024			entomology	3	

8. Expected learning outcomes of the program					
Knowledge					
Learning Outcomes 1	Learning Outcomes Statement 1				
Skills					
Learning Outcomes 2	Learning Outcomes Statement 2				
Learning Outcomes 3	Learning Outcomes 3 Learning Outcomes Statement 3				
Ethics					
Learning Outcomes 4	earning Outcomes 4 Learning Outcomes Statement 4				
Learning Outcomes 5	Outcomes 5 Learning Outcomes Statement 5				

## 9. Teaching and Learning Strategies

Teaching and learning strategies and methods adopted in the implementation of the program in general.

#### 10. Evaluation methods

Implemented at all stages of the program in general.

11. Faculty						
Faculty Members	5					
Academic Rank	Specializ	ation	Special Requirement (if applicable	,	Number of	the teaching staff
	General	Special			Staff	Lecturer
				2		1

#### **Professional Development**

#### Mentoring new faculty members

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

#### 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)

## 13. The most important sources of information about the program

State briefly the sources of information about the program.

#### 14. Program Development Plan

	Program Skills Outline														
					Required program Learning outcomes										
Year/Level Course Course Basic or Code Name	Knov	Knowledge			Skills			Ethics							
			optional	<b>A1</b>	A2	A3	<b>A4</b>	B1	B2	B3	B4	C1	C2	С3	<b>C4</b>
2025-2024						*			*				*		

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

1. Course Name:

sixth

- 2. Course Code:
- 3. Semester / Year:

2025-2024

- 4. Description Preparation Date:
- 2 basic science and 2 practice
  - 5. Available Attendance Forms:
  - 6. Number of Credit Hours (Total) / Number of Units (Total)

3

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

Name: Raad Saad Sultan

Email:radsad1975@gmail.com.

8. Course Objectives

Course Objectives	•	entomology
	•	insect dissecting
	•	insect life cycle

9. Teaching and Learning Strategies

Strategy	Learn student bases of entomology and practice programs

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
		Outcomes	name	method	method
	3	integument	General bo	Data	Exam a
			structures	Show	discussi
	3	body syster	Digestive,	Data	
			respiratory	show	
			reproductiv,		
			systems		

11. Course Evaluation							
Distributing the score out of 100 according to the tasks assigned to the student such daily preparation, daily oral, monthly, or written exams, reports etc							
12. Learning and Teaching Resources	3						
Required textbooks (curricular books, if any)	Entomology references						
Main references (sources)	Insects anatomy						
Recommended books and references	Basic entomology reference						
(scientific journals, reports)							
Electronic References, Websites							

Course nan		.1
Educat	ional sta	tistics
Course cod	de	۲.
the chapter/Ye	ear	.۳
Fourth s	emester	/2025
Date this description was prepa	ared	. ٤
		-2025
Available attendance		.0
Classro	om	
Number of study hours (total) / Number of units (to	otal)	٦.
(22.2.7.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	, ,	-
16hou	ır/ 2lon	liness
Name of the course administrator (if more than one name is men	tioned)	.٧
	,	
Dr. Yahya Munim	Abbas	
Course ob	iectives	٠.٨
	,	
Understand the conceptEducational statisticsWhat is science?Stati	sticsAnd	its
relationship with sciencethe sciencesInfluentialAndinMathematical app		
laws of centr	al tende	ency.
Teaching and learning str	rategies	.9
	s	trategy
Introducing students to the importance of electricity and magnetism \		
Develop and enable students to understand the topics of statistics and -		
their relationship to science.		
Learn about the laws of central tendency "		
	•	

## Course structure . . .

Evaluation	Learning	Name of the unit or	Required learning	Watche	The week
method	method	topic	outcomes	s	
AskAndAnsw ersAnd	Discussion and dialogue	Dispersion –	First. Statistics, definition of	4	First- Second
viva voce	Communicat ion + Illustrations	measures, types of dispersion measures.	statistics, measurement and statistics, population,	4	Third- fourth
examFirst month	Discussion and discussionAr	Correlation – measures, types of correlation coefficients:	sample, statistical symbols.	4	Fifth-Sixth
AskAndAnsw ersAnd	е	<ol> <li>Pearson's correlation coefficient.</li> </ol>	Data display	4	Seventh- Eighth
examdaily	Communicat ion + Illustrations	2. Spearman's correlation coefficient.	methods: A. Quantitative data B. Qualitative data	4	Ninth - Tenth
Second month exam	Communicat ion + Illustrations	Inferential – statistics: hypotheses, level of significance,	- Bar charts, histograms, polygons, graphs, pie charts.	4	Eleventh - Twelfth
viva voce	Discussion and dialogue	degrees of freedom, standard deviation, steps for choosing hypotheses.	Statistical measures: 1.  Descriptive statistics Inferential	3	Thirteenth - Fourteenth
End of term	Discussion		statistics		

exam	and dialogue	- Measures of	fifteenth
		central	
		tendency,	
		arithmetic	
		mean	
		(average),	
		weighted	
		mean	
		(weighted),	
		median,	
		mode.	
		Course Ev	raluation .۱۱
			Oral test: 5
		Daily <sub>I</sub>	preparation: 5
			Daily exams:5
			Activities: 5

Monthly exams:

Learning and teaching resources . 17

Total: 40 degree

Final Exam: 60 marks

20

Main references (Books)
Educational Statistics Dr. Tawfiq Al-Bayati
Luucationai Statistics Di. Tawny Al-Dayati
thesourcesSupporting references (scientific journals, reports, etc.)

1. Course Name:

Measurement and evaluation

- 2. Course Code:
- 3. Semester / Year:

Sixth semester / 2025

4. Description Preparation Date:

8-2-2025

5. Available Attendance Forms:

Classroom + laboratory

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

70 Hours/ 4 Units

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

Name: RASHA AHMED RIDAH Email: rasha@uowasit.edu.iq

#### 8. Course Objectives

dentify the concept of measurement and evaluation and its relation to scientific and educational research, and the factors affecting measurement and evaluation. Then identify the characteristics of measurement and evaluation, and then study measurement and evaluation and what are the most important types of measurement and evaluation.

#### 9. Teaching and Learning Strategies

#### Strategy

- 1 -Introducing students to the importance of measurement and evaluation.
- 2 -Developing and enabling students to understand the topics of measurement and evaluation and their relationship to practical and educational research.
- 3-Identify the factors affecting measurement and evaluation and their uses

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
			name	method	
		Outcomes			method
1-2	5			Discussion	questions and answers
3-4	5	Measurement and evaluation	Measurement and evaluation	Communicative + Practical laboratory	Oral Test
		Measurement and evaluation and its role in the process	Measurement and evaluation and its role in the process		
		And its role in the process	And its role in the process		
5-6	5	.Educational	.Educational	Discussion + Practical	First monthly
		.Educational	.Educational	laboratory	exam
		Measurement concept	Measurement concept		
		.And reinforcement	.And reinforcement		
		Measurement concept	Measurement concept		
7-8	5	Measurement and	Measurement and	Communicative	Discussio
		.evaluation purposes	evaluation	+ Practical	n
		.And reinforcement	.purposes	laboratory	
		Measurement and	.And reinforcement		
		.evaluation purposes	Measurement and		
		Areas of	evaluation		
		measurement and	.purposes		
		evaluation.	Areas of		
			measurement and evaluation.		
9-10	5	Measurement and	Measurement and	Communicative	Daily
		.evaluation purposes	evaluation	+ Practical	exam
		Areas of	.purposes	laboratory	
		measurement and	Areas of		
		.evaluation	measurement and		
		Measurement fields	.evaluation		

		Two types of calendar	Measurement fields		
1. (	Course E	valuation			
		Educational:	.And reinforcement		
			Educational:		
11-12	5	Magnetism		Discussion + Practical	Second month
2. 1	Learning	and teaching resource			
13-14	5	Types of educational calendar  Formative calendar	Types of educational :calendar		Oral test
		Formative calendar	Formative calendar		
		Final calendar	Formative calendar		
	_		Final calendar.		
15	5	.Final calendar	.Final calendar		End of
		Achievement tests .2	Achievement .2 tests		semester exam

#### 3. Course Evaluation

Oral exam: 5

Daily preparation: 5

Conducting experiments and reports: 10

Monthly exams: 20 Total: 40 degrees Final exam: 60 marks

#### 4. Learning and teaching resources

Main references (books)

1 - Wahib Al-Kubaisi - Psychological Measurement and Tests

(....Supporting sources and references ) scientific journals, reports

Electronic patches

1. Course Name:				
	Educati	ional psychology		
2. Course Code:				
3. Semester / Year:				
	FOURT	H semester / 2025		
4. Description Prepara	ition Date:			
		8-2-2025		
5. Available Attendance				
C N1 CC 1'4 II -		oom + laboratory	F . 4 . 1)	
6. Number of Credit Ho	urs (Total)	/ Number of Units (	Total)	
	70 F	Hours/ 4 Units		
<ol><li>Course administrat</li></ol>	or's name	(mention all, if mo	re than one na	me)
Name: RASHA A Email: <u>rasha@uow</u>		DAH		
8. Course Objectives				
Learn about the concept scientific research and the the characteristics of educa and what are the most important the characteristics.	factors affe ational psyc	ecting educational ps chology and then stu	sychology, then indy educational p	learn about
9. Teaching and Learning	g Strategies			
2 -Develop educatio educatio	ing and ena nal psycho nal researc	s to the importance of abling students to un logy and their relation h and other sciences	derstand the topionship to practica	ics of al and
·				
10. Course Structure				
Week Hours Require	d Learning	Unit or subject	Learning method	Evaluation
Outcom	es	name	meulou	method

	1-2	5			Discussion	questions and answers
	3-4	5	Measurement and evaluation  Measurement and evaluation and its role in the process  And its role in the process	Educational psychology  And his role in the process  .Educational  Science concept	Communicative + Practical laboratory	Oral Test
				Educational psychology		
	5-6	5	.Educational	Purposes of educational psychology	Discussion + Practical laboratory	First monthly exam
			Measurement concept  .And reinforcement  Measurement	Fields of educational psychology		
			concept			
	7-8	5	Measurement and .evaluation purposes  .And reinforcement  Measurement and .evaluation purposes	Motivation  Learning and teaching	Communicative + Practical laboratory	Discussio n
			Areas of measurement and evaluation.			
Ş	9-10	5	Measurement and .evaluation purposes  Areas of measurement and	Science theories  Educational psychology	Communicative + Practical laboratory	Daily exam
			.evaluation  Measurement fields  Two types of calendar			

		.And reinforcement			
3. 0	Course E	Evaluation			
				laboratory	exam
13-14	5	Types of :educational calendar	Types of educational :calendar	Discussion + Practical laboratory	Oral test
2. 1	Learning	and teaching resource			
		Final calendar	Formative calendar		
15	5	.Final calendar Achievement tests .2	Final calendar.  .Final calendar  Achievement .2 tests		End of semester exam

Final exam: 60 ma	ks			
. Learning and	teaching resources			
Main referen	ces (books)			
1 - Educational	Psychology Book:	Dr. Hana Hus	sein Al-Falfali	
(Supportin	g sources and refe	rences ) scier	itific journals, r	eports
ectronic patches				