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

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2025

Academic Program Description Form

University Name: Al-Furat Al-Awsat Technical University
Faculty/Institute: College of Health and Medical Technologies/ Kufa

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Scientific Department: Department of Version Screening Techniques
Academic or Professional Program Name: Bachelor of Version Screening Technology (Optometrist)
Final Certificate Name: Bachelor's degree in Version Screening Techniques
Academic System: " Semester \ Annual Integrated Courses " Description
Preparation Date: 28/02/2025
File Completion Date: 24/03/2025

Signature:
Head of Department Name:
Dr. Zainb Abdalzahra abdalhsan
Date: 27/3 / 2025

Signature:
Scientific Associate Name:
Assist. Prof.Dr. Raad Ajam Sayel
Date: 27/3/ 2025

The file is checked by:
Department of Quality Assurance and University Performance
Director of the Quality Assurance and University Performance Department:
Assist.Lac.: Inas Kazim Al-Khazraji
Signature:

Approval of the Dean

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.

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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.

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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.

Course Description: 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.

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

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

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

Curriculum Structure: 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.

Teaching and learning strategies: 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 extra-curricular activities to achieve the learning outcomes of the program.

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featured with high level of knowledge and creativity in their major, in accordance with the international medical standards and quality assurance. The medical programs shall be corresponding to those adopted by the Department of Optics Technologies at the Technical Health College / University of Baghdad. Moreover, it is remarkable to note that the results shall be analyzed through the use of bio-statistics methods.

1. Program Vision

The Department of Optics Technologies was established in 2021 as per the administrative order issued by the Ministry of Higher Education & Scientific Research, No. 13741 on 21st November 2021. The Department aims to graduate technicians with high proficiency, qualified to work in Ophthalmology hospitals, health centers and private clinics.

- **Study Period: 4 years**
- **Study Language: English**

2. Program Mission

Due to the widespread of using eyeglasses and lenses, there has been a great need to optometrists and visual technicians in the various institutions of health, whether public or private.

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3. Program Objectives

Department of Optics Technologies focuses on achieving a number of objectives. They can be summarized as follows:

- **Providing efficient graduates, highly qualified in the field of ophthalmology so as to meet the country's need according to the medical and economical development requirements, all together with ensuring teaching staff for universities and institutes.**
- **Constant promotion to curricula and study plans for all grades so as to keep pace with the recent development in the field of ophthalmology.**
- **Keeping pace with the fast changes in the field of IT and analysis of medical data.**
- **Focusing on scientific research and its essential role in serving the community by conducting scientific and applied research.**
- **Interacting with the related public sector institutions to organize training courses for our medical staff.**
- **Striving to improve performance so as to achieve comprehensive quality assurance.**
- **Encouraging scientific cooperation with corresponding Arab and international universities and institutions.**
- **Exchanging experiences in a way that ensures development and reinforcement of the department as well as the educational process.**

4. Program Accreditation

The mission of the Department is summarized in providing graduates, qualified and highly trained in the field of ophthalmology, diagnosis of eye diseases and manufacture of eyeglasses as well as contact lenses. Graduates indeed shall be

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5. **Program Structure**				
Program Structure	**Number of Courses**	**Credit hours**	**Percentage**	**Reviews***
Institution Requirements	**8**	**17**	**18.3%**	**-**
College Requirements	**7**	**22**	**23.7%**	**-**
Department Requirements	**14**	**54**	**58%**	**Basic**
Summer Training	**2**	**4**	**50%**	**Basic**
Other	**-**	**-**	**-**	**-**

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

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6. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	Practical
The first stage/first course	atuchm_VS111	Anatomy of the head and neck	2	5
The first stage/first course	atuchm_VS112	Principles of chemistry	2	4
The first stage/first course	atuchm_VS113	Medical and optical physics 1	3	5
The first stage/first course	atuchm_VS114	Biology 1	2	4
The first stage/first course	atuchm_VS115	Computer principles 1	1	2
The first stage/first course	atuchm_VS116	Human rights and democracy	2	0
The first stage/first course	atuchm_VS117	English	3	0
First stage/second course	atuchm_VS121	**Anatomy of the eye**	2	5
First stage/second course	atuchm_VS122	**Biochemistry**	2	4
First stage/second course	atuchm_VS123	**Medical and optical physics 2**	3	5
First stage/second course	atuchm_VS124	**Biology 2**	2	4
First stage/second course	atuchm_VS125	**Computer principles 2**	1	2
First stage/second course	atuchm_VS126	**Arabic**	2	0
The second stage / first course	atuchm_VS211	Philosophy of the eye and vision 1	2	4
The second stage / first course	atuchm_VS212	Optical devices 1	2	5
The second stage / first course	atuchm_VS213	Ocular health 1	2	4
The second stage / first course	atuchm_VS214	Refractive errors 1	2	5
The second stage / first course	atuchm_VS215	Statistical applications1	1	3
The second stage / first course	atuchm_VS216	Medical terms	2	0
The second stage / first course	atuchm_VS217	Computer	1	2
The second stage / first course	atuchm_VS218	Crimes of the Defunct Baath party	2	0
The second stage / second course	atuchm_VS221	Philosophy of the eye and vision 2	2	4
The second stage / second course	atuchm_VS222	Optical devices 2	2	5
The second stage / second course	atuchm_VS223	Ocular health 2	2	4

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The second stage / second course	atuchm_VS224	Refractive errors 2	2	5
The second stage / second course	atuchm_VS225	Statistical applications 2	1	3
The second stage / second course	atuchm_VS226	pharmaceutical	2	0
The second stage / second course	atuchm_VS227	Lasers in ophthalmology	1	3
The second stage / second course	atuchm_VS228	Arabic Language	2	0

7. Expected learning outcomes of the program

Knowledge	
1- Graduation of scientific cadres with specialization. 2- Operates and maintains the medical equipment used in eye examination. 3- Enabling students to obtain knowledge, intellectual understanding, and skills to identify vision testing devices and ways to maintain them. 4- Teaching the student the skills required to deal with different cases of eye diseases. 5- Enabling the student to contribute to understanding cases of eye disease and to intervene as necessary.	1- That the student knows the basics of the required sciences. 2- That the student understands the required scientific details. 3- The student should analyze scientific developments.
Skills	
1 - That the student uses the devices correctly. 2- That the student applies what he has learned in practice.	1- Good knowledge of the principles of optics and related sciences. 2 - Technical ability in his field of work and monitoring the patient's vital conditions.
1 - The student must bring the necessary materials.	1- Good knowledge of medical terminology. 2- Good knowledge of the English language.

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2 - That the student performs the appropriate procedures for the situations he faces.	
Ethics	
1- Working as a team. 2- That the student recognizes the importance of academic subjects.	1- Commitment to the ethics of the university institution 2- Receiving information and cognitive receptivity

8. Teaching and Learning Strategies

1 - Classroom education through theoretical and practical lectures

2- Learning through hospitals

3- Preparing scientific reports and research.

9. Evaluation methods

1- Exams.

2- Writing and presenting reports and research.

3- Scientific discussions.

4- For daily attendance and activities.

10. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Dr.Zainb Abdalzahra	physics	Laser physics			Yes	
Dr. Alaa Hashim Abd Ali	Medical Laborator Techniques	Biosciences			Yes	

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Dr. Aqeel Salim Raheem	physics	Laser and optoelectronics			Yes	
Dr. Dargham Abdul Jalil Rasoul	Engineer				Yes	
Assist. Lecturer Hanan Saad Hashem	Biology	Microbiology			Yes	
Assist. Lecturer Rusul Fadhil Abdul Abbas	Biology	Physiology			Yes	
Assist. Lecturer Zahraa Mohammed Mashkor	physics	physics			Yes	
Assist. Lecturer Janan Karim Issa	Biology	Microbiology			yes	
Assist. Lecturer Ghassan Zaher Muhammad	Mathematical Sciences	Statistics			yes	
Dr. Haider Khadir Khattar	Chemistry	Physical Chemistry			yes	
Dr. habah taklif majid	Biology	Microbiology			yes	

Professional Development
Mentoring new faculty members
Directing new faculty members to the necessity of working on developing the scientific method, methods of delivering scientific lectures, and how to deliver practical material to the student
Professional development of faculty members
Working to find development ideas and working to develop scientific laboratories and the practical aspect, since the students' specialization is a scientific specialization.

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11. Acceptance Criterion

Students who have graduated from preparatory school in the scientific branch are allowed to be accepted into the university's Optometry Technology Department after passing and succeeding in the study and obtaining an average of 70% or more for admission. The department accepts graduates of preparatory school in the scientific branch in biology only.

12. The most important sources of information about the program

1- Textbooks prescribed by the Ministry of Higher Education and Scientific Research

2- External scientific sources

3- Using libraries and the Internet

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13.	Program Development Plan

The department has many methodological and research plans in order to develop the department and the environmental environment, as the department presidency, the department council, and the scientific committee work to provide all requirements for the development of the department.

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Program Skills Outline																
				Required program Learning outcomes												
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023-2024 first semester Step one	atuchm_VS111	Anatomy of the head and neck	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS112	Principles of chemistry	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS113	Medical and optical physics 1	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS114	Biology 1	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS115	Computer principles 1	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS116	Human rights and democracy	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS117	English	optional	√	√	√	√	√	√	√	√	√	√	√	√

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مخطط مهارات البرنامج																
				Required program Learning outcomes												
Year/Level	Course Code	Course Name	Basic or optional	المعرفة				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023-2024 second semester Step one+	atuchm_VS121	Anatomy of the eye	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS122	Biochemistry	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS123	Medical and optical physics 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS124	Biology 2	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS125	Computer principles 2	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS126	Arabic	optional	√	√	√	√	√	√	√	√	√	√	√	√

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Program Skills Outline																
				Required program Learning outcomes												
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023-2024 first semester Step two	atuchm_VS211	Philosophy of the eye and vision 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS212	Optical devices 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS213	Ocular health 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS214	Refractive errors 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS215	Statistical applications1	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS216	Medical terms	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS217	Coumputer	optional	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS218	Baath Party crimes	optional	√	√	√	√	√	√	√	√	√	√	√	√

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Program Skills Outline																
				Required program Learning outcomes												
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023-2024 second semester St two	atuchm_VS221	Philosophy of the eye and vision 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS222	Optical devices 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS223	Ocular health 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS224	Refractive errors 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS225	Statistical applications 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS226	pharmaceutical	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS227	Lasers in ophthalmology	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	atuchm_VS228	Arabic language	optional	√	√	√	√	√	√	√	√	√	√	√	√

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Anatomy of the head and neck Course Description 1

Course Name
Anatomy of the head and neck
Course Code
atuchm_VS111
Semester / Year
First Semester / First Year
The history of preparation of this description
16/9/2024
Available Attendance Forms
Came
Number of Credit Hours (Total) / Number of Units (Total)
7 / 4
Course administrator's name (if more than one name)
Name: Assist. lec Russl fadel abdelabaas Email :
Course Objectives
General Objective: Learn the importance of anatomy and the location of organs for the student in his field of specialization. **Special Objective:** 1. Understand the nature of anatomy, its types, terminology, directions, and levels of body anatomy. 2. Study the anatomy of the body, its functions, and skeletal system. 3. Study the anatomy of bones and identify the types of bones. 4. Study the anatomy of the neck, shoulder, and forearm.
Teaching and Learning Strategies •

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1-Cooperative education strategy.
2-Brainstorming education strategy.
3-Education strategy collaborative concept planning.
4-Real-time feedback education strategy
5-Education Strategy Notes Series.
6.The strategy of education by exchanging views and discussing.
7. Education strategy by presenting information.
8-Education strategy by training and presentation of scientific developments

7- Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	The week
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Description of anatomical terms:** Definition, classification, types.	The student's knowledge of the subject	7	1
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Anatomy of skull**: Clinical presentation, definition, classification, types.	Scientific and Skills Perception	7	2
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Anatomy of brain**: Clinical presentation, definition, classification, functions.	Scientific, mental and applied	7	3
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Blood vessels, muscles, skin:** Definition, classification. Functions	The student's knowledge of the subject	7	4
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Anatomy of bones**: Clinical presentation, classification.	Scientific and Skills Perception	7	5
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Joint :** definition, classification.	Scientific, mental and applied	7	6
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Scalp**: Definition, function.	The student's knowledge of the subject	7	7
Daily, oral and	Theoretical	**Blood brain supply**:	The student's	7	8

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written exams, reports, discussions.	and practical	Definition, explanation, function.	knowledge of the subject		
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Face (muscles of face paranasal sinus):** Definition, classification, function.	Scientific and Skills Perception	7	9
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Face (sensory, skin, blood supply:** Definition, classification, function.	Scientific, mental and applied	7	10
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Face (mandibular, temporomandibular joint):** Definition, classification, function	Scientific and Skills Perception	7	11
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Cranial nerves:** Definition, classification, function.	Scientific, mental and applied	7	12
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Neck anatomy (arteries, veins, lymph, nerves, bones):** definition, classification, function.	The student's knowledge of the subject	7	13
Daily, oral and written exams, reports, discussions.	Theoretical and practical	**Trunk and shoulder anatomy:** definition, classification, function	Scientific and Skills Perception	7	14
Daily, oral and written exams, reports, discussions.	Theoretical and practical	General Revision	Scientific, mental and applied	7	15

Course Evaluation •

Striving: Theoretical: 25 Practical: 15/ Final: Theoretical: 35 Practical: 25

Learning and Teaching Resources •

	Required textbooks (methodology)
1.Clinical Head and Neck Anatomy for Surgeons. Edited by Peter A.Brennan, Vishy	Main references (sources)

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Mahadevan , Barrie T Evan. 2016. 2. Illustrated Anatomy of the Head and Neck. By Susan W. Herring, 1995. 3. Textbook of Head and Neck Anatomy. By James L Hiatt PhD 1982 .١	
	Recommended supporting books and references (Scientific journals, reports...)
	Electronic References, Websites

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Course Description For General Chemistry

1.Course name	
General Chemistry	
2.Course code	
atuchm_VS112	
1. First semester	
Annual/ 2024-2025	
2. Date this description was prepared	
20/1/2025	
3. Available attendance forms	
4. Number of study hours (total) / Number of units (total)	
Number of hourstheoretical (2) Practical (4)	Number of units (4)
5. Name of course supervisor (if more than one name is mentioned)	
the name :m.Dr. Haider Khader Khattar e-mail: haider.khattarckm11@atu.edu.iq	
6. Course objectives	
General objective: 1. Providing students with basic concepts in general chemistry and their applicatior the health and medical field, thus enhancing understanding of chemical reactions related to vital functions and medical technologies.Teaching students how to administer medications. 2. To enable the student to understand the basic principles of general chemistry anc apply them to the analysis of biological samples and the diagnosis of diseases us modern chemical methods. **3.** Providing students with the theoretical and practical foundations of general chemistry to support health and medical applications in the fields of analysis, diagnosis, and treatment.	**Topic objectives**
7. Teaching and learning strategies	
1. Direct guidance and follow-up 2. Create a good role model among students 3. Theoretical tests 4. Duties	**Strategy**

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. Course structure

Evaluation method	Learning method	Name of unit or topic	Required learning outcomes	watches	week
Practical tests, reports and studie	theoretical	introduction	Study and knowledg	2	1.
Practical tests and exams Theory, reports and studies	theoretical	Structure of matter	Study and knowledg	2	2.
Practical tests and exams Theory, reports and studies	theoretical	chemical bonding	Study and knowledg	2	3
Practical tests and exams Theory, reports and studies	theoretical	Liquid solutions and mixtures	Study and knowledg	2	4.
Practical tests and exams Theory, reports and studies	theoretical	Analysis methods	Study and knowledg	2	5.
Practical tests and exams Theory, reports and studies	theoretical	Statistical processing of analytical data	Study and knowledg	2	6.
Practical tests and exams Theory, reports and studies	theoretical	Neutralize acidity and bases	Study and knowledg	2	7
Practical tests and exams Theory, reports and studies	theoretical	gaseous air pollution	Study and knowledg	2	8
Practical tests and exams Theory, reports and studies	theoretical	Oxidation and reduction	Study and knowledg	2	9
Practical tests and exams Theory, reports and studies	theoretical	Oxidative stress in the eye	Study and knowledg	2	10

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Practical tests and exams Theory, reports and studies	theoretical	Problem solutions	Study and knowledg	2	11
Practical tests and exams Theory, reports and studies	theoretical	chemother apy	Study and knowledg	2	13
Practical tests and exams Theory, reports and studies	theoretical	Carbon dioxide and nitric oxide in the eye	Study and knowledg	2	14
Practical tests and exams Theory, reports and studies	theoretical	Questionsan , solutions	Study and knowledg	2	15

4. Headquarters Evaluation

Distribution of grades fromTheoretical 60 and practical 40According to the tasks assigned to the student, such as daily preparation, daily, oral, monthly and written exams, reports, etc.

5. Learning and teaching resources

Fundamentals of Analytical Chemistry - Skoog translatedSkooge	Required textbooks (curriculum available)
	Main References (Sources)
	Recommended supporting books and references (scientific journals, reports, etc.)
(Electronic References / Websites):	Electronic references and websi

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Course Description Medical Microbiology

• Course Name
Medical Microbiology
• Course Code
atuchm_VS114
• Semester / Year
First Semester / First Year
• The history of preparation of this description
٢٠٢٤/٠٩/١٦
• Available Attendance Forms
In presence
• Number of Credit Hours (Total) / Number of Units (Total)
٤/٦
• Course administrator's name (if more than one name)
Name: Dr. Ameer abood kreem Email :
• Course Objectives
Knowledge of microorganisms that cause injuries, whether bacterial, viral or parasite infections that affect th body systems and that help the physical therapist in treating such cases.

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- Teaching and Learning Strategies

✓ Cooperative Education Strategy. ✓ Brainstorming Education Strategy. ✓ Education Strategy Collaborative Concept Planning. ✓ Real-time feedback education strategy ✓ Education Strategy Notes Series. ✓ Interactive and Discussion Education Strategy. ✓ Education Strategy by Presentation of Information. ✓ The strategy of education by training and presentation of scient developments	**Strategies**

- Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	The week
Daily, oral and written exams Reports, discussions.	Theoretical + Practical	microbiology- Introductic &microscope, precaution waste disposal		6	١
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	Classification of Micro-organisms & morphology Bacteria		6	2
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	Sterilization & disinfectic [basic concepts] hospita acquired infection, univer safety		6	3
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	**immunology** :Antigen antibody - reaction & application for diagnosis; Immune response - normal/abnormal		6	4

قسم تقنيات
فحص البصر

Daily, oral and written exams, reports, discussions.	Theoretical + Practical	**immunology** : Innate immunity & acquired immunity [vaccination], Hyper - sensitivity & auto-immunity		6	5
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	Laboratory Diagnosis of Infection		6	6
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	**Bacteriology :** . Infection caused by gram +ve cocci; Gas gangrene - clostridium -Diphtheria , Infection caused by gram –ve cocci, Septicemia-cholera - Shock Typhoid diarrhea		6	7
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	**Bacteriology :** Mycobacterial infection tuberculosis: Leprosy- Atypical Mycobacterium d. syphilis – morphology & pathogenesis [VDRL]		6	8
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	**Viruses** Polio, measles, congenital viral infections, Rubella, CMV Herpes		6	9
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	**Mycology**		6	10
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	Parasites affecting C. N. S.		6	11
Daily, oral and written exams, reports, discussions.	Theoretical + Practical	**Malaria** - Filaria - Toxoplasma – Cystiscercosis		6	12
Daily exams Oral, writt reports, discussions.	Theoretical + Practical	**Applied biology** as relevant to diseases involving Bones, Joints - Nerves - Muscles-Skin -		6	13

قسم تقنيات
فحص البصر

		brain-cardiopulmonary system & burns.			
Daily, oral and written exams Reports, Discussions.	Theoretical + Practical	**Viruses:** Introduction & general properties, .HIV		6	14
Daily, oral and written exams Reports, Discussions.	Theoretical + Practical	REVISION		6	15

- Course Evaluation

Striving: Theoretical: 25 Practical: 15/ Final: Theoretical: 35 Practical: 25

- Learning and Teaching Resources

	Required textbooks (methodology)
1. 2THuman biology: concepts and current issues 1T2b 0T1Johnson, Michael D.0T third edition 2. Biology a functional approach, 1987 ,2P ndP editior MBV Roberts,TJ King . 3. Advanced biology ,2000.Micheal Roberts , Michea rieis, Grace Monger	Main references (sources)
	Recommended supporting books and references (Scientific journals, reports...)
	Electronic References, Websites

قسم تقنيات
فحص البصر

Computer Course Description 1

• **Course Name**
Computer1
• **Course Code**
atuchm_VS115
• **Semester / Year**
First Semester / First Year
• The history of preparation of this description
16/ 9/2024
• Available Attendance Forms
In presence
• **Number of Credit Hours (Total) / Number of Units (Total)**
3 /2
• **Course administrator's name (if more than one name)**
Name: Dr.. Ahmed Hamed Elias Assist.Lec. Ahmed Younis Email :
• **Course Objectives**
General Objective : Providing the student with the skills of dealing with basic office applications and creating office files and documents. And the use of the operating system as well as the basics of working within the digital environment. Special Objective : Providing the student with knowledge in the management and use of various computer applications . **Vocabulary**

قسم تقنيات
فحص البصر

- Teaching and Learning Strategies

✓ Cooperative education strategy. ✓ Brainstorming education strategy. ✓ Education strategy collaborative concept planning. ✓ Real-time feedback education strategy ✓ Education Strategy Notes Series. ✓ The strategy of education by exchanging views and discussing. ✓ Education strategy by presenting information. ✓ Education strategy by training and presentation of scientific developments.	**Strategy**

- Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	The week
Daily, oral and written exams, reports, discussions.	Theoretical	Computer Fundamentals Computer concept, computer life cycle phases and the development of computer generations		1	1
Daily, oral and written exams, reports, discussions.	Theoretical	Computer advantages and areas of use Computer classification in terms of purpose, size and type of data		1	2
Daily, oral and written exams, reports, discussions.	Theoretical	Computer Components Computer Components Computer Hardware Software Entities		1	3
Daily, oral and written exams, reports, discussions.	Theoretical	Your personal computer computer security concept and software licenses		1	4
Daily, oral and written exams, reports,	Theoretical	Computer Security and		1	5

قسم تقنيات
فحص البصر

discussions.		Software Licenses Computer Safety & Software Licences			
Daily, oral and written exams, reports, discussions.	Theoretical	Ethics of the electronic world - forms of transgressions - computer security - computer privacy		1	6
Daily, oral and written exams, reports, discussions.	Theoretical	Computer software licenses and types, intellectual property, electronic penetration, malicious software, the most important steps necessary to protect against hacking, computer damage to health		1	7
Daily, oral and written exams, reports, discussions.	Theoretical	Operating Systems Operating System Definition, Functions, Objectives, Classification Examples of some operating systems		1	8
Daily, oral and written exams, reports, discussions.	Theoretical	Operating Systems Windows 7 Operating System		1	9
Daily, oral and written exams, reports, discussions.	Theoretical	Desktop components Taskbar Start Menu		1	10
Daily, oral and written exams, reports, discussions.	Theoretical	Folders and files Icons		1	11
Daily, oral and written exams, reports,	Theoretical	Perform operations on windows desktop		1	12

قسم تقنيات
فحص البصر

discussions.		wallpapers			
Daily, oral and written exams, reports, discussions.	Theoretical	Control Panel Windows Control Panel Groups (Category)		1	13
Daily, oral and written exams, reports, discussions.	Theoretical	From the Defragment control panel , organize files inside the computer, install and delete programs		1	14
Daily, oral and written exams, reports, discussions.	Theoretical	Some common conditions and settings in the computer , printer management, setting the time and date, maintenance of primary disks		1	15
Evaluation method	**Learning method**	**Practical vocabulary titles**	**Required Learning Outcomes**	**Hours**	**The week**
Daily, oral and written exams, reports, discussions.	practical	- Practical examples of browsing, opening and closing windows and dialog boxes and the correct way to deal with the keyboard, cursor and other devices.		2	1
Daily, oral and written exams, reports, discussions.	practical	- Practical examples on customization, dealing with icons and changing screen resolution.		2	2
Daily, oral and written exams, reports,	practical	- Training the student to create a new user, enlarge		2	3

قسم تقنيات
فحص البصر

discussions.		windows and show the keyboard to identify the physical components of the calculator.			
Daily, oral and written exams, reports, discussions.	practical	- Training the student to deal with computer software licenses and types and deal with the original origin of the programs.		2	4
Daily, oral and written exams, reports, discussions.	practical	Training the student to deal with computer security.		2	5
Daily, oral and written exams, reports, discussions.	practical	Training the student to deal with computer privacy		2	6
Daily, oral and written exams, reports, discussions.	practical	Training the student to deal with electronic penetration and its types Types of virus recipes, how to make a backup image of the computer for protection		2	7
Daily, oral and written exams, reports, discussions.	practical	Training the student to deal with operating systems, formatting and partitioning the hard drive internally and externally		2	8
Daily, oral and written exams, reports, discussions.	practical	- Training the student to install Windows 7.		2	9
Daily, oral and written exams, reports, discussions.	practical	- Train the student on the Start menu Run taskbar commands and configure a file and store it with the		2	10

قسم تقنيات
فحص البصر

		student's name on the desktop. Handle from program windows and sliders. .-Training the student on the uses of F1, F2,...,F12 in the keyboard			
Daily, oral and written exams, reports, discussions.	practical	- Create a folder with a specific name and training on name change, concealment, retrieval, deletion and its path.		2	11
Daily, oral and written exams, reports, discussions.	practical	Training the student to perform operations on windows desktop wallpapers		2	12
Daily, oral and written exams, reports, discussions.	practical	Training the student to use the control panel		2	13
Daily, oral and written exams, reports, discussions.	practical	Training the student to delete a specific program and install it again.		2	14
Daily, oral and written exams, reports, discussions.	practical	Training the student on common computer settings Installing the printer and how to deal with it, setting the time and date, maintenance of primary disks Partitions C,D,E,F		2	15

- Course Evaluation

Quest: Theoretical: 25 Practical: 15/ Final: Theoretical: 35 Practical: 25

- Learning and Teaching Resources

	Required textbooks (methodology)
Computer Fundamentals and Office Applications (Part One)	Main references (sources)

قسم تقنيات
فحص البصر

Description of the Law and Democracy course

• **Course Name**
Rights and Democracy
• **Course Code**
ATU.CHM. VS116
• **Semester / Year**
First Semester / First Year
• The history of preparation of this description
16/9/2024
• Available Attendance Forms
Came
• Number of Credit Hours (Total) / Number of Units (Total)
2 / 2
• Course administrator's name (if more than one name)
Name: Assist .Lec. Muhand Juma Mahdi Email :
• Course Objectives
1 **General:** Increasing the student's knowledge of the theoretical conceptual aspect and the historical development of human rights and democracy Skills Development The student's analytical and critical regarding the reality and future of human rights and democracy **2.Special:** Enable students to understand the importance of education and its role in spreading the culture of human rights and democracy in building a civilized society based on On the basis of good governance, one of the most important components of which is faith human rights

قسم تقنيات
فحص البصر

- Teaching and Learning Strategies

✓ Cooperative education strategy. ✓ Brainstorming education strategy. ✓ Education strategy collaborative concept planning. ✓ Real-time feedback education strategy ✓ Education Strategy Notes Series. ✓ The strategy of education by exchanging views and discussing. ✓ Education strategy by presenting information. ✓ Education strategy by training and presentation of scienti developments.	**Strategy**

- Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	The week
Daily, oral and written exams, reports, discussion:	Theoretical	Historical development of human rights, human rights in ancient civilizations		2	١
Daily, oral and written exams, reports, discussion:	Theoretical	Human rights in heavenly laws with a focus on human rights in Islam		2	2
Daily, oral and written exams, reports, discussion:	Theoretical	Human rights in the Middle and Modern Ages		2	3
Daily, oral and written exams,	Theoretical	Regional recognition of human rights at the		2	4

قسم تقنيات
فحص البصر

reports, discussion		European, American, African, Islamic and Arab levels			
Daily, oral and written exams, reports, discussion	Theoretical	Non-governmental organizations and their role in human rights (International Committee of the Red Cross, Amnesty International, Human Rights Watch, Arab Organization for Human Rights)		2	5
Daily, oral and written exams, reports, discussion	Theoretical	Human rights in international and regional conventions and national legislation		2	6
Daily, oral and written exams, reports, discussion	Theoretical	Human rights in regional conventions (European Convention on Human Rights - American Convention on Human Rights - African Charter on Human Rights - Arab Charter on Human Rights)		2	7
Daily, oral and written exams, reports, discussion	Theoretical	Human rights in national legislation (Iraqi Constitution)		2	8
Daily, oral and written exams, reports, discussion	Theoretical	Forms and generations of human rights (individual and collective rights)		2	9

قسم تقنيات
فحص البصر

Daily, oral and written exams, reports, discussions	Theoretical	Guarantees and protection of human rights at the national level		2	10
Daily, oral and written exams, reports, discussions	Theoretical	Human rights guarantees and protection at the regional and international levels		2	11
Daily, oral and written exams, reports, discussions	Theoretical	Classification of public freedoms (basic and individual, freedom of security and feeling reassured, freedom to go and father, personal freedom)		2	12
Daily, oral and written exams, reports, discussions	Theoretical	Intellectual and cultural freedoms (freedom of opinion, freedom of belief and freedom of education)		2	13
Daily, oral and written exams, reports, discussions	Theoretical	Freedom of the press, freedom of assembly and freedom of association		2	14
Daily, oral and written exams, reports, discussions	Theoretical	Economic and social freedoms (freedom of work, freedom of ownership, freedom of trade and industry)		2	15
• Course Evaluation					
Striving: : 30 / Final: 70					

قسم تقنيات
فحص البصر

• Learning and Teaching Resources	
Hadi, Riad Azabz. (2005). Human rights (evolving contents and protection) (Baghdad). Sindi, Naz. Badrakhan. (2012). Human Rights and Democracy. Ibn Rushd College of Education for Human Sciences, University of Baghdad. Hadi, Riad Azabz. (2005). Human rights (evolving contents and protection) (Baghdad). Dulaimi, Hafez Alwan. (2009). A contemporary reading of the subject of human rights. Dulaimi, Hafez Alwan. (2009). A contemporary reading of the subject of human rights.	Required textbooks (methodology)
	Main references (sources)
	Recommended supporting books a references (Scientific journals, reports...)
	Electronic References, Websites

قسم تقنيات
فحص البصر

Course Description: English Language

1: Course Title
English Language
2: Course Code
atuchm_VS117
3: Semester/Year
First Semester / First Year
4: Date of Preparing this Description
2024/9/16
5: Available Attendance Formats
In person
6: Total Study Hours (Overall) / Total Units (Overall)
3/3
7: Course Coordinator
Assistant Lecturer Aqeel Salam :Email
8:Course Objectives
Teaching students methods of dialogue, writing, and listening in the English language, as well as .the main English grammar rules
9:Teaching and Learning Strategies
1-Cooperative Learning Strategy 2- Brainstorming Strategy 3-Concept Mapping Cooperative Strategy .١ 4- Real-Time Feedback Strategy .٢ 5-Observation Chain Strategy .٣ 6-Exchange of Opinions and Discussion Strategy .٤ 7-Presentation of Information Strategy .٥ 7-Training and Presentation of Scientific Developments Strategy .٦

قسم تقنيات
فحص البصر

10:Course Structure					
Evaluation Method	**Learning Method**	**Unit or Topic Title**	**Learning Outcomes**	**hours**	**Week**
Daily, Oral, and Written Exams; Reports; Discussions	Theory			٣	١

11:Course Assessment
Continuous Assessment: 30% / Final Exam: 70%

12:Learning and Teaching Resources	
	Prescribed Textbooks (Curricular)
	Main References (Sources)
	Recommended Supplementary Books and References (Scientific Journals, Reports...)
	Electronic References, Websites

قسم تقنيات
فحص البصر

Course Description For Biochemistry

1.Course name
Biochemistry
2.Course code
Atuchm.VS122
1. First semester
Annual/ 2024-2025
2. Date this description was prepared
20/1/2025
3. Available attendance forms
4. Number of study hours (total) / Number of units (total)
Number of hourstheoretical (2) Practical (4) Number of units (8)
5. Name of course supervisor (if more than one name is mentioned)
the name :m.Dr. Haider Khader Khattar e-mail: haider.khattarckm11@atu.edu.iq
6. Course objectives

General objective:	**Topic objectives**
1. Providing students with basic concepts in general chemistry and their application in the health and medical field, thus enhancing understanding of chemical reactions related to vital functions and medical technologies.Teaching students how to administer medications. 2. To enable the student to understand the basic principles of general chemistry and apply them to the analysis of biological samples and the diagnosis of diseases using modern chemical methods. 3. Providing students with the theoretical and practical foundations of general chemistry to support health and medical applications in the fields of analysis, diagnosis, and treatment.	

قسم تقنيات
فحص البصر

7. Teaching and learning strategies	
1. Direct guidance and follow-up 2. Create a good role model among students 3. Theoretical tests 4. Duties	**Strategy**

8. Course structure

Evaluation method	**Learning method**	**Name of unit or topic**	**Required learning outcomes**	**watc hes**	**week**
Practical tests, reports and studies	theoretical	introducti on	Study and knowledge	2	1 .
Practical tests and exams Theory, reports and studies	theoretical	Amino acids	Study and knowledge	2	2 .
Practical tests and exams Theory, reports and studies	theoretical	proteins	Study and knowledge	2	3
Practical tests and exams Theory, reports and studies	theoretical	enzymes	Study and knowledge	2	4 .
Practical tests and exams Theory, reports and studies	theoretical	lipide	Study and knowledge	2	5 .
Practical tests and exams Theory, reports and studies	theoretical	vitamins	Study and knowledge	2	6 .
Practical tests and exams Theory, reports and studies	theoretical	Carbohyd rates	Study and knowledge	2	7
Practical tests and exams Theory, reports and studies	theoretical	Carbohyd rate metabolis m	Study and knowledge	2	8

قسم تقنيات
فحص البصر

Practical tests and exams Theory, reports and studies	theoretical	liver	Study and knowledge	2	9
Practical tests and exams Theory, reports and studies	theoretical	Liver diseases	Study and knowledge	2	10
Practical tests and exams Theory, reports and studies	theoretical	eye lipide	Study and knowledge	2	11
Practical tests and exams Theory, reports and studies	theoretical	Enzymes in clinical diagnosis	Study and knowledge	2	13
Practical tests and exams Theory, reports and studies	theoretical	glucose metabolism	Study and knowledge	2	14
Practical tests and exams Theory, reports and studies	theoretical	Questionsa nd solutions	Study and knowledge	2	15

4. Headquarters Evaluation

Distribution of grades fromTheoretical 60 and practical 40According to the tasks assigned to the student, such as daily preparation, daily, oral, monthly and written exams, reports, etc.

5. Learning and teaching resources

Lippincott's biochemistry	Required textbooks (curriculum if available)
Lehninger Principles	Main References (Sources)
Electronic References / Websites	Electronic references and websites

قسم تقنيات
فحص البصر

Computer Course Description 2

- **Course Name**

Computer 2

- **Course Code**

atuchm_VS125

- **Semester / Year**

Second Semester / First Year

- **The history of preparation of this description**

16/9/2024

- **Available Attendance Forms**

Came

- Number of Credit Hours (Total) / Number of Units (Total)

3 / 2

- Course administrator's name (if more than one name)

Name: Assist . Name: Dr.. Ahmed Hamed Elias Assist.Lec. Ahmed Younis

Email :

- Course Objectives

General Objective:

At the end of the academic year, the student should be able to:

Providing the student with the skills of dealing with basic office applications and creating library files and documents. And the use of the operating system as well as the basics of working within the digital environment.

Special Objective :

The student shall be able to:

Providing the student with knowledge in the management and use of various computer applications.

قسم تقنيات
فحص البصر

• Teaching and Learning Strategies	
✓ Cooperative education strategy. ✓ Brainstorming education strategy. ✓ Education strategy collaborative concept planning. ✓ Real-time feedback education strategy ✓ Education Strategy Notes Series. ✓ The strategy of education by exchanging views and discussing. ✓ Education strategy by presenting information. ✓ Education strategy by training and presentation of scientific developments.	**Strategy**

• Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	The week
Daily, oral and written exams, reports, discussions.	Theoretical	Vocabulary details		1	١
Daily, oral and written exams, reports, discussions.	Theoretical	Microsoft Word 2010 Run Microsoft Word 2010		1	2
Daily, oral and written exams, reports, discussions.	Theoretical	Microsoft Word 2010 interface		1	3
Daily, oral and written exams, reports, discussions.	Theoretical	File tab, Home tab		1	4
Daily, oral and written exams, reports, discussions.	Theoretical	Page Layout tab, View tab		1	5
Daily, oral and written exams, reports, discussions.	Theoretical	Insert objects in Microsoft Word 2010		1	6
Daily, oral and written exams, reports,	Theoretical	Insert Tab Pages Collection		1	7

قسم تقنيات
فحص البصر

discussions.					
Daily, oral and written exams, reports, discussions.	Theoretical	Tables		1	8
Daily, oral and written exams, reports, discussions.	Theoretical	Tables		1	9
Daily, oral and written exams, reports, discussions.	Theoretical	Collection of illustrations		1	10
Daily, oral and written exams, reports, discussions.	Theoretical	Link group, Header & Footer group		1	11
Daily, oral and written exams, reports, discussions.	Theoretical	Text Set, Symbols Set		1	12
Daily, oral and written exams, reports, discussions.	Theoretical	Additional tasks for Microsoft Word 2010		1	13
Daily, oral and written exams, reports, discussions.	Theoretical	Microsoft PowerPoint 2010 Open a new file and store it on your desktop. - Add and edit slides (title slide, title with content, subtitle, two contents, comparison, title only, blank slide, content with comment, image with comment).		1	14
Daily, oral and written exams, reports, discussions.	Theoretical	Add a theme theme. -Master views main display group - Add movements, time control and repetition for the entire slides and differently for each slide.		1	15

قسم الدراسات
فحص البصر

Evaluation method	Learning method	Practical vocabulary titles	Required Learning Outcomes	Hours	The week
Daily, oral and written exams, reports, discussions.	practical	- Writing many texts and training the student to conduct these events.		2	1
Daily, oral and written exams, reports, discussions.	practical	- Train the student to make texts in different formats and drag them on the printer.		2	2
Daily, oral and written exams, reports, discussions.	practical	- Practical exercises on texts within the document. - Give names to companies or students and train the student to search for a specific name and replace it.		2	3
Daily, oral and written exams, reports, discussions.	practical	Train the student on page layout, text writing practice presentation tab		2	4
Daily, oral and written exams, reports, discussions.	practical	Give practical examples of inserting objects Training to write texts in a more professional way		2	5
Daily, oral and written exams, reports, discussions.	practical	Give practical examples of a set of tab insertion pages		2	6
Daily, oral and written exams, reports, discussions.	practical	Give practical examples of the set of tables		2	7
Daily, oral and written exams, reports, discussions.	practical	Give other practical examples Tables set		2	8
Daily, oral and written exams, reports, discussions.	practical	Training the student on a set of illustrations		2	9
Daily, oral and written	practical	- Include a specific photo		2	10

قسم تقنيات
فحص البصر

exams, reports, discussions.		and assign the student to conduct these events.			
Daily, oral and written exams, reports, discussions.	practical	- Training the student to write texts that include currency symbols, special letters, scientific symbols, and others.		2	11
Daily, oral and written exams, reports, discussions.	practical	- Training the student to write equations that include addition, multiplication and raising formulas for exponents and matrices in different forms . - Training the student to create different tables with data entry		2	12
Daily, oral and written exams, reports, discussions.	practical	-Training to open a new file and store it on the desktop. - Add and edit slides (title slide, title with content, subtitle, two contents, comparison, title only, blank slide, content with comment, image with comment). - Add and edit content segment types (table, graph, shapes and charts, images, images from the Internet, video files).		2	13
Daily, oral and written exams, reports, discussions.	practical	- Training on deleting, moving and rearranging slides. -Add theme theme. -Apply the effectiveness of Master slide		2	14

قسم تقنيات
فحص البصر

		- Add movements, time control and repetition for the entire slides and differently for each slide.			
Daily, oral and written exams, reports, discussions.	practical	- In addition to each part of the slide, entry movement, stability, exit and other movements, with adjustment of repetition, time and the rest of the options. Save the presentation file as Adobe PDF.		2	15

- Course Evaluation

Quest: Theoretical: 25 Practical: 15/ Final: Theoretical: 35 Practical: 25

- Learning and Teaching Resources

	Required textbooks (methodology)
Computer Fundamentals and Office Applications (Part One)	Main references (sources)
	Recommended supporting books and references (Scientific journals, reports...)
	Electronic References, Websites

قسم تقنيات
فحص البصر

Course Description For Arabic

- **Course Name**

Arabic Language

- **Course Code**

atuchm_VS126

Semester / Year

Second Semester / First Year

- **The history of preparation of this description**

16/9/2024

- Available Attendance Forms

In presence

- **Number of Credit Hours (Total) / Number of Units (Total)**

2/2

- **Course administrator's name (if more than one name)**

Name: Dr. Mohannad Badie

Email : muhannad.najickm@atu.edu.iq

- **Course Objectives**

General: Developing the spirit of pride in the Arabic language

Special: Developing students' language skills

Upgrading students' professional and research level

Developing the grammatical and literary abilities of the university student

قسم تقنيات
فحص البصر

• **Teaching and Learning Strategies**	
✓ Cooperative education strategy. ✓ Brainstorming education strategy. ✓ Education strategy collaborative concept planning. ✓ Real-time feedback education strategy ✓ Education Strategy Notes Series. ✓ The strategy of education by exchanging views and discussing. ✓ Education strategy by presenting information. ✓ Education strategy by training and presentation of scientific developments.	**Strategy**

• Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	The week
Daily, oral and written exams, reports, discussions.	Theoretical	Introduction to Linguistic Errors – T The tethered - the long and the open t		2	١
Daily, oral and written exams, reports, discussions.	Theoretical	Rules for writing an elongated thousand The cabin – solar letters The Lunar		2	2
Daily, oral and written exams, reports, discussions.	Theoretical	Al-Daad and Al-Zaa		2	3
Daily, oral and written exams, reports, discussions.	Theoretical	Hamza writing		2	4
Daily, oral and written exams, reports, discussions.	Theoretical	Punctuation		2	5
Daily, oral and written exams, reports,	Theoretical	Noun and verb and		2	6

قسم تقنيات
فحص البصر

discussions.		differentiate between them			
Daily, oral and written exams, reports, discussions.	Theoretical	Reactor		2	7
Daily, oral and written exams, reports, discussions.	Theoretical	Number		2	8
Daily, oral and written exams, reports, discussions.	Theoretical	Applications of common linguistic errors		2	9
Daily, oral and written exams, reports, discussions.	Theoretical	Noon and Tanween meanings of prepositions		2	10
Daily, oral and written exams, reports, discussions.	Theoretical	Formal aspects of administrative discourse		2	11
Daily, oral and written exams, reports, discussions.	Theoretical	The language of administrative discourse		2	12
Daily, oral and written exams, reports, discussions.	Theoretical	Samples of administrative correspondence		2	13
Daily, oral and written exams, reports, discussions.	Theoretical	Introduction to Linguistic Errors – T The tethered - the long and the open t		2	14
Daily, oral and written exams, reports, discussions.	Theoretical	Rules for writing an elongated thousand The cabin – solar letters The Lunar		2	15
• Course Evaluation					
Endeavor: 30/ Final: 70					

قسم تقنيات
فحص البصر

• Learning and Teaching Resources	
	Required textbooks (methodology)
1 The book of the workbook in the explanation of the book of discharge 2 Manual grammar book	Main references (sources)
	Recommended supporting books references (Scientific journals, reports...)
	Electronic References, Websites

قسم تقنيات
فحص البصر

Course Description For Physiology the eye and vision1

1. Course Name:
Physiology the eye and vision1
2. Course Code:
atuchm_VS211
3. Semester / Year:
First 2024-2025
4. Description Preparation Date:
10-10-2024
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total)
6 hours in week /4 units
7. Course administrator's name (mention all, if more than one name)
Name: Dr. Ayman Muhammad Baqir Al-Dhalmi Email:
8. Course Objectives

Course Objectives	• General goal: to know the structures of the eye and its functional parts • Specific objective: Preparing the student's information to understand the lessc Physiology-based specialization

9. Teaching and Learning Strategies	
Strategy	١-There is a group of printed lectures where the scientific material is discussed and important notes are made during the lecture. 2- Read reference books and various scientific papers individually or collectively. 3- Discussions in small and large groups. 4- Answering questions during the scientific lecture. 5- Lectures and means of explanation, such as using a projector

قسم تقنيات
فحص البصر

10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	6	Understand the lecture	Visual acuity	Attendance	Quarterly and weekly exam
2	6	Understand the lecture	Visual acuity cont.	Attendance	Quarterly and weekly exam
3	6	Understand the lecture	Binocular vision ,benefits of having eye	Attendance	Quarterly and weekly exam
4	6	Understand the lecture	Optics and refracti the image of eye	Attendance	Quarterly and weekly exam
5	6	Understand the lecture	Optics and refracti cont.the aging eye	Attendance	Quarterly and weekly exam
6	6	Understand the lecture	Steriopsis 3 dimension vision	Attendance	Quarterly and weekly exam
7	6	Understand the lecture	Pupillary reflex	Attendance	Quarterly and weekly exam
8	6	Understand the lecture	Externsic muscles action, ocular movement	Attendance	Quarterly and weekly exam
9	6	Understand the lecture	Eye movements, types &coordinate movements	Attendance	Quarterly and weekly exam
10	6	Understand the lecture	Cornea and seclera anatomy	Attendance	Quarterly and weekly exam
11	6	Understand the lecture	Cornea and seclera cont. corneal transparency ,responses to wounding	Attendance	Quarterly and weekly exam

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12	6	Understand the lecture	rnea cont. woundir healing corneal nutirtion vit.A&cornea	Attendance	Quarterly and weekly exam
13	6	Understand the lecture	Aqueous humor	Attendance	Quarterly and weekly exam
14	6	Understand the lecture	Aqueous humor and I.O.P	Attendance	Quarterly and weekly exam
15	6	Understand the lecture	The lens	Attendance	Quarterly and weekly exam

11. Course Evaluation

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

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	• Gyton A.C.(1996).Introduction to Endocrinology in Text Book of Medical Physiology.(9thed),W.B. Saunders Co. Philadelphia. ,P.925
Main references (sources)	Nature -Science - E. book and websites
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Nature -Science - E. book and websites

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Course Description For Optical Equipment 1

1. Course Name:	
Optical Equipment 1	
2. Course Code:	
atuchm_VS212	
3. Semester / Year:	
First / 2024-2025	
4. Description Preparation Date:	
7/8/2024	
5. Available Attendance Forms:	
In presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
6 hours per week / 4units	
7. Course administrator's name (mention all, if more than one name)	
Name: **karrar idan rashid**	Email karrar.iraq56@gmail.com
8. Course Objectives	
Course Objectives	1. The student should be knowledgeable about all optical devices anc their usage. 2. The student should be able to operate the devices and understand hov to maintain them.
9. Teaching and Learning Strategies	
Strategy	1. Demonstrative Lectures: The course instructor explains the operation, function and maintenance of devices theoretically, accompanied by presentations anc illustrative images. 2. Practical Demonstrations: The instructor showcases how the devices work tc identify eye diseases or refractive errors and explains how to interpret the results. 3. Workshops: Students are divided into small groups and trained on how to operat the devices under the supervision of the instructor. 4. Case Studies: Clinical cases of patients with various diseases are presented, anc students are asked to analyze the case and deduce the types of diseases affecting th patient's eye and the appropriate treatment. 5. Use of Modern Technologies: Such as augmented reality or virtual reality tc simulate different disease conditions and train students on diagnosing then interactively.

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10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
First	7	Theoretical and practical	Introduction and general information	In presence	Quarterly and weekly tests.
				In presence	Quarterly and weekly tests.
Second	7	Theoretical and practical	General consideration for maintaining ophthalmic instruments	In presence	Quarterly and weekly tests.
Third	7	Theoretical and practical	Ophthalmic instruments decontamination	In presence	Quarterly and weekly tests.
Fourth	7	Theoretical and practical	Risk of transmission of infection in devices	In presence	Quarterly and weekly tests.
Fifth	7	Theoretical and practical	Risk of transmission of infection in devices	In presence	Quarterly and weekly tests.
Sixth Seventh	7	Theoretical and practical	Test charts and trial case and frame١	In presence	Quarterly and weekly tests.
Eighth	7	Theoretical and practical	Test charts and trial case and frame٢	In presence	Quarterly and weekly tests.
Ninth	7	Theoretical and	Retinoscopy	In presence	Quarterly and weekly

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		practical			tests.
Tenth	7	Theoretical and practical	Auto refractometer	In presence	Quarterly and weekly tests.
eleventh	7	Theoretical and practical	Auto refractometer	In presence	Quarterly and weekly tests.
twelfth	7	Theoretical and practical	Tonometer types , contact and non-contact1	In presence	Quarterly and weekly tests.
Thirteen	7	Theoretical and practical	Tonometer types , contact and non-contact٢	In presence	Quarterly and weekly tests.
fourteen	7	Theoretical and practical	Tonometer types , contact and non-contact3	In presence	Quarterly and weekly tests.
fifteen	7	Theoretical and practical	Lensometer	In presence	Quarterly and weekly tests.

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	College of Health and Medical Techniques/ Baghdad
	1.Step by Step Reading Pentacam Topography 2.Binocular Vision & Orthoptics 3.Clinical Optics and Vision Rehabilitation 4.Textbook of Visual Science and Clinica Optometry 5.Borish's Clinical Refractio 6.The Retinoscopy

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Course Description For Eye health 1

11. Course Name:	
Eye health 1	
12. Course Code:	
atuchm_VS213	
13. Semester / Year:	
First / 2024-2025	
14. Description Preparation Date:	
3/2/2025	
15. Available Attendance Forms:	
In presence	
16. Number of Credit Hours (Total) / Number of Units (Total)	
٦ hours per week / ٤ units	
17. Course administrator's name (mention all, if more than one name)	
Name: **GHAITH HUSAIN ALI** Email: : ghha255@gmail.com	
18. Course Objectives	
Course Objectives	Introducing the student to all diseases and injuries that the eye is exposed to
19. Teaching and Learning Strategies	
Strategy	١. Explanatory lectures: The professor explains the types of eye diseases theoretically, accompanied by presentations and illustrative images. ٢. Practical presentations: The professor takes illustrative images to identify eye diseases or refractive errors, and explains how to interpret the results. ٣. Workshops: Students are divided into small groups and trained on how to identify eye diseases under the supervision of the professor. ٤. Clinical case studies: Clinical cases of patients with various diseases are presented, and students are asked to analyze the case and conclude the type of diseases associated with the patient's eye and the appropriate treatment. **6.** Use of modern technologies: such as augmented reality or virtual reality to simulate various disease cases and train students to diagnose them in an interactive manner.

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20. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
First	6	Theoretical and practical knowledge	Introduction: review of anatomy & physiology the eye	In presence	Quarterly and weekly tests.
Second	6		Introduction : history & examination of the eye		
Third	6		Introduction: certain ophthalmic terms.(terminology)		
Fourth	6		Primary eye care		
Fifth	6		Primary eye care		
Sixth	6		Screening procedures in ophthalmology		
Seventh	6		Screening procedures in ophthalmology		
Eighth	6		School eye screening programs		
Ninth	6		Concept of community ophthalmology sticky eye, watery eye		
Tenth	6		Concept of community ophthalmology flashes of light , floating object in visual field		
eleventh	6		Concept of community ophthalmology long term glaucoma monitoring		
twelfth	6		The epidemiology of blindness (general principles)		
Thirteen	6		The epidemiology of blindness (disease specific strategy)		
fourteen	6		The right to sight (vision 2020)		
fifteen	6		Revision		

21.Course Evaluation

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

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22. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	College of Health and Medical Techniques/ Baghdad
Main references (sources)	Clinical Procedures In Primary Eye Care
Recommended books and references (scientific journals, reports...)	Clinical Procedures In Primary Eye Care
Electronic References, Websites	

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Course Description For Refractive Errors 1

23. Course Name:	
Refractive errors (1)	
24. Course Code:	
atuchm_VS214	
25. Semester / Year:	
First / 2024-2025	
26. Description Preparation Date:	
٢٤/09/2024	
27. Available Attendance Forms:	
In presence	
28. Number of Credit Hours (Total) / Number of Units (Total)	
7 hours / 4 units	
29. Course administrator's name (mention all, if more than one name)	
Name:**Hassan Abdulhadi Jasim Aljaberi**	Email: **hassan.abdulhadi@uomus.edu.iq**
30. Course Objectives	
Course Objectives	1. Introducing students to the common types of refractive errors such as myopia, farsightedness, and astigmatism, and understanding their causes and mechanisms of occurrence. 2. Training students to use various devices and equipment to measure and monitor refractive errors, such as the retinoscope and autorefractometer. 3. Providing students with practical skills in determining the type of refractive error in a patient through eye examination and analyzing the results. **4.** Identify the different methods of correcting refractive errors, such as eyeglasses, contact lenses, and corrective surgeries**.**
31. Teaching and Learning Strategies	
Strategy	1. Explanatory lectures: where the teacher explains the types of refractive errors, their causes, and their mechanisms in a theoretical manner, accompanied by presentations and illustrative pictures. 2. Practical presentations: The teacher shows how to use different devices to measure refractive errors, such as the retinoscope and the autorefractometer, and explains how to interpret the results. 3. Workshops: where students are divided into small groups, and they practice using devices and measuring refractive errors under the supervision of the teacher. 4. Clinical case study: Clinical cases of different patients with various refractive

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errors are presented, and students are asked to analyze the case and conclude the type of refractive error and appropriate treatment.

5. Using modern technologies: such as augmented reality or virtual reality to simulate cases of different refractive errors and train students to diagnose them in an interactive way.

32. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	3	Theoretical and practical knowledge	Light	attendance includes: - • Develop students' ability to communicate and interact with patients to clearly explain their condition and treatment options. • Enhancing students' thinking and analytical skills by studying clinical cases and practical examples of different refractive errors.	Students' performance is continuously evaluated during practical lessons through quizzes, assignments and practical reports.
Second	3		Mirror & lens		
Third	3		Visual acuity (VA)		
Fourth	3		Trial case		
Fifth	3		Retinoscope I		
Sixth	3		Retinoscope II		
Seventh	3		Refractive error (RE)		
Eighth	3		Myopia		
Ninth	3		Myopia (sign & symptoms)		
Tenth	3		Hypermetropia		
eleventh	3		Hypermetropia (sign & symptoms)		
twelfth	3		Astigmatism I		
Thirteenth	3		Astigmatism II		
fourteenth	3		Astigmatism (sign & symptoms)		

33. Course Evaluation

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

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34. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. American Journal of Ophthalmology 2. Journal of Refractive Surgery
Main references (sources)	American Academy of Ophthalmology (AAO)
Recommended books and references (scientific journals, reports…)	Optometrist Guide by Hassan A. Aljaberi
Electronic References, Websites	1. EyeWiki (https://eyewiki.aao.org/Refractive_Errors) 2. All About Vision (https://www.allaboutvision.com/resources/refractive-errors.)

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Course Description For Medical terminology1

- Course Name:

Medical terminology1

- Course Code:

atuchm_VS216

- Semester / Year:

First semester /2024-2025

- Description Preparation Date:

17/9/2024

- Available Attendance Forms:

In presence

- Number of Credit Hours (Total) / Number of Units (Total)

2 /2

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

Name: Hayder Khudhair Khattar Email: haider.khattarckm11@atu.edu.iq

- Course Objectives

Course Objectives	Objectives of the Medical Terminology Course for Students Topic: Defining the Main Objectives of the Medical Terminology C in Educating Students Core Objectives: • Equip students with basic vocabulary in medical terminology, including terms related to anatomy, physiology, pathology, and treatment. • Enhance students' skills in effectively using medi language in both written and verbal communicati within healthcare environments. • Develop students' ability to analyze and interpret medical information, including medical records, diagnoses, and treatment plans. • Prepare students for healthcare professions by prc them with the necessary linguistic tools. Expected Learning Outcomes: • Define basic medical terms. • Apply medical terminology to describe body stru functions, diseases, and procedures. • Interpret medical records and other written docun • Communicate effectively with healthcare professi

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	and patients using precise medical language. • Build a strong foundation for advanced medical s Key Benefits: • Improve understanding of medical concepts and procedures. • Enhance communication with healthcare professi • Increase confidence in clinical settings. • Establish a solid foundation for advanced medical studies.

- Teaching and Learning Strategies

Strategy	Key Strategies for Teaching and Learning Medical Terminology

1. **Practical Application**
   - Encourage students to use terminology in conversations, practical exercises, and real-life scenarios.
2. **Visual Aids**
   - Use images, diagrams, and videos to facilitate understanding and memory retention.
3. **Symbols and Icons**
   - Link terms with symbols and icons to make them easier to remember.
4. **Repetition and Application**
   - Repeatedly use terms in different contexts to strengthen comprehensior
5. **Contextual Understanding**
   - Relate terms to their meanings within the medical context to deepen understanding.
6. **Hands-on Training**
   - Organize simulated training sessions to mirror real-life medical situations.
7. **Continuous Assessment**
   - Use quizzes and interactive activities to gauge the level of understanding.

Goals of These Strategies

1. **Enhance Understanding**
   - Help students grasp the meaning of medical terms and use them correctly.
2. **Improve Retention**
   - Utilize various methods to make terms stick in the memory.
3. **Develop Skills**

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- Improve students' communication and critical thinking skills.

4. **Prepare for Practical Application**
   - Equip students to face language challenges in healthcare settings.

Factors for Choosing the Right Strategy

1. **Student Needs**
   - Consider their prior knowledge and preferred learning styles.
2. **Learning Objectives**
   - Focus on the specific skills and knowledge that need to be acquired.
3. **Available Resources**
   - Account for time, educational materials, and technology.

- Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation metho
1	2	Theoretical and practical knowledge	1-Introduction- structural analysis- basic rules of medical word building .	In presence	Quarterly and weekly tests
2	2	Theoretical and practical knowledge	Major suffixes: (1) suffixes denoting a state or condition	In presence	Quarterly and weekly tests
3	2	Theoretical and practical knowledge	Major suffixes: (1) suffixes denoting a state or condition	In presence	Quarterly and weekly tests
4	2	Theoretical and practical knowledge	Major suffixes: (2) suffixes denoting medical actions	In presence	Quarterly and weekly tests
5	2	Theoretical and practical knowledge	Prefixes: (4) Prefixes size, time, place, roots, .and word terminals	In presence	Quarterly and weekly tests
6	2	Theoretical and practical knowledge	Terms concerning	In presence	Quarterly and

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			the body as a whole		weekly tests
7	2	Theoretical and practical knowledge	Terms concerning oncology	In presence	Quarterly and weekly tests
8	2	Theoretical and practical knowledge	Terms concerning the skin and its appendages	In presence	Quarterly and weekly tests
9	2	Theoretical and practical knowledge	Terms concerning the gastrointestinal Tract	In presence	Quarterly and weekly tests
10	2	Theoretical and practical knowledge	Terms concerning the respiratory system and cardiovascular system	In presence	Quarterly and weekly tests
11	2	Theoretical and practical knowledge	Terms concerning the endocrine system	In presence	Quarterly and weekly tests
12	2	Theoretical and practical knowledge	Terms concerning the blood and lymphatic system	In presence	Quarterly and weekly tests
13	2	Theoretical and practical knowledge	Terms concerning the musculoskeletal system& nervous system	In presence	Quarterly and weekly tests
14	2	Theoretical and practical knowledge	Terms concerning the special senses		
15	2	Introduction- structural analysis- basic rules of medical word building	Introduction- structural analysis- basic rules of medical word building ..	In presence	Quarterly and weekly tests

- Course Evaluation

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

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• Learning and Teaching Resources	
Required textbooks (curricular books, if any)	It's not available now
n references (sources)	**1-Mosby's Medical Terminology Flash Cards, 4th Edition** By Mosby's Editorial Staff **2-Terminology: A Short Course, 7th Edition** - By Bernadette Marie Ryan and Audrey Lafferty: This concise textbook offers a ser-friendly approach to medical terminology, emphasizing word lding and practical applications. It includes interactive exercises, case studies, and a medical terminology **3- Medical Dictionary, 28th Edition - By Donald R. Rohen: This classic medic dictionary is a valuable resource for students and healthcare professionals alike. provides detailed definitions of medical terms, along with pronunciation guides a etymological informatic**
Recommended books and references (scientific journals, reports...)	1- Methodology for Medical Terminology: 2- Contextualization and Application: Provide real-world examples and case studies to illustrate how medical terminology is used in practice.
Electronic References, Websites	American academy of ophthalmology1-Electronic Resources and Websites for Medical Terminology: 2-Online Dictionaries and Terminology Tools: 3-Merriam-Webster Medical Dictionary: https://www.merriam-webster.com/medical provides comprehensive definitions of medical terms, along with pronunciation guides, etymological information, and usage examples. 4- https://www.medterm.ca/ offers a user-friendly interface to search and learn about medical terms. It includes definitions, pronunciations, synonyms, and related terms.

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Course Description ForPhysiology the eye and vision 2

13.Course Name:
Physiology the eye and vision 2
14.Course Code:
atuchm_VS2 21
15.Semester / Year:
secound 2024-2025
16.Description Preparation Date:
10-10-2024
17.Available Attendance Forms:
18.Number of Credit Hours (Total) / Number of Units (Total)
6 hours in week /4 units
19.Course administrator's name (mention all, if more than one name)
Name: Dr. Ayman Muhammad Baqir Al-Dhalmi Email:
20.Course Objectives

Course Objectives	• **General goal: to know the structures of the eye and its functional parts** • **Specific objective: Preparing the student's information to understand the lessons** **Physiology-based specialization**

21.	Teaching and Learning Strategies
Strategy	١-There is a group of printed lectures where the scientific material is discussed and import notes are made during the lecture. 2- Read reference books and various scientific papers individually or collectively. 3- Discussions in small and large groups. 4- Answering questions during the scientific lecture. 5- Lectures and means of explanation, such as using a projector

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22. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation metho
1	6	Understand the lecture	The lens	Attendance	Quarterly and weekly exam
2	6	Understand the lecture	The lens cont. lens and Accommodation	Attendance	Quarterly and weekly exam
3	6	Understand the lecture	Accommodation the mechanism of accommodation	Attendance	Quarterly and weekly exam
4	6	Understand the lecture	Optics and refraction cont. Accommodation & retinal role	Attendance	Quarterly and weekly exam
5	6	Understand the lecture	Introduction the lacrimal system and tears	Attendance	Quarterly and weekly exam
6	6	Understand the lecture	The vitreous anatomy, Ultra structure & biochemical aspects	Attendance	Quarterly and weekly exam
7	6	Understand the lecture	The vitreous cont. aging of vitreous support function for retina	Attendance	Quarterly and weekly exam
8	6	Understand the lecture	Retina histology & function retina	Attendance	Quarterly and weekly exam
9	6	Understand the lecture	Retina cont. central & peripheral retina, fovea, parafovea & pit	Attendance	Quarterly and weekly exam
10	6	Understand the lecture	Retina cont. rod & cone pathways and differences	Attendance	Quarterly and weekly exam
11	6	Understand the lecture	Color blindness, clinical types, genetics, Ishihara	Attendance	Quarterly and weekly exam
12	6	Understand the lecture	High visual center and light reflex	Attendance	Quarterly and weekly exam
13	6	Understand the lecture	Perimetry & visual field testing methods of testing visual field, types of perimetry	Attendance	Quarterly and weekly exam

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14	6	Understand the lecture	Perimetry & visual field testing methods of testing visual field, types of perimetry	Attendance	Quarterly and weekly exam
15	6	Understand the lecture	Revision	Attendance	Quarterly and weekly exam

23. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparatic daily oral, monthly, or written exams, reports .... e

24. Learning and Teaching Resources

Required textbooks (curricular books, if any)	• Gyton A.C.(1996).Introduction to Endocrinology in Text Book of Medical Physiology.(9thed),W.B. Saunders Co. Philadelphia. ,P.92:
Main references (sources)	Nature -Science - E. book and websites
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Nature -Science - E. book and websites

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Course Description For Optical Equipment 2

35. Course Name:	
Optical Equipment 2	
36. Course Code:	
atuchm_VS222	
37. Semester / Year:	
Second / 2024-2025	
38. Description Preparation Date:	
7/1/٢٠٢٥	
39. Available Attendance Forms:	
In presence	
40. Number of Credit Hours (Total) / Number of Units (Total)	
6 hours per week / 4units	
41. Course administrator's name (mention all, if more than one name)	
Name: karrar idan rashid	**Email: karrar.iraq56@gmail.com**
42. Course Objectives	
Course Objectives	1. The student should be knowledgeable about all optical devices and their usage. 2. The student should be able to operate the devices and understand how to maintain them.
43. Teaching and Learning Strategies	
Strategy	1. Demonstrative Lectures: The course instructor explains the operation, function, and maintenance of devices theoretically, accompanied by presentations and illustrative images. 2. Practical Demonstrations: The instructor showcases how the devices work to identify eye diseases or refractive errors and explains how to interpret the results. 3. Workshops: Students are divided into small groups and trained on how to operate the devices under the supervision of the instructor. 4. Case Studies: Clinical cases of patients with various diseases are presented, and students are asked to analyze the case and deduce the types of diseases affecting the patient's eye and the appropriate treatment. 5. Use of Modern Technologies: Such as augmented reality or virtual reality to simulate different disease conditions and train students on diagnosing them interactively.

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44. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
First	7	Theoretical and practical knowledge	Revision	• In presence	Quarterly and weekly tests.
Second	7		Lensometer		
Third	7		Fundus Camera		
Fourth	7		External Eye Photography		
Fifth	7		Indirect Ophthalmoscope		
Sixth Seventh	7		Direct Ophthalmoscope Corneal Examination - Placido Disc		
Eighth	7		Corneal Examination- Keratometer		
Ninth	7		Corneal Examination- Keratometer		
Tenth	7		Corneal Examination- VKG		
eleventh	7		Corneal Examination- Speclar Microscopy		
twelfth	7		Corneal Examination- Aesthesiometer		
Thirteen	7		Corneal Topographer		
Thirteen	7		Corneal Topographer		
fourteen	7		Revision		

45.Course Evaluation

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

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46.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	College of Health and Medical Techniques/ Baghdad
Main references (sources)	1.Step by Step Reading Pentacam Topography 2.Binocular Vision & Orthoptics 3.Clinical Optics and Vision Rehabilitation 4.Textbook of Visual Science and Clinical Optometry 5.Borish's Clinical Refractio 6.The Retinoscopy Book
Recommended books and references (scientific journals, reports...)	- Textbook of Visual Science and Clinical Optometry - Borish's Clinical Refractio
Electronic References, Websites	

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Course Description For Eye health 2

47. Course Name:	
Eye health 2	
48. Course Code:	
atuchm_VS223	
49. Semester / Year:	
Second / 2024-2025	
50. Description Preparation Date:	
3/2/2025	
51. Available Attendance Forms:	
In presence	
52. Number of Credit Hours (Total) / Number of Units (Total)	
6 hours per week / 4 units	
53. Course administrator's name (mention all, if more than one name)	
Name: **GHAITH HUSAIN ALI** Email: : ghha255@gmail.com	
54. Course Objectives	
Course Objectives	Introducing the student to all diseases and injuries that the eye is exposed to
55. Teaching and Learning Strategies	
Strategy	١. Explanatory lectures: The professor explains the types of eye diseases theoretically, accompanied by presentations and illustrative images. ٢. Practical presentations: The professor takes illustrative images to identify eye diseases or refractive errors, and explains how to interpret the results. ٣. Workshops: Students are divided into small groups and trained on how to identify eye diseases under the supervision of the professor. ٤. Clinical case studies: Clinical cases of patients with various diseases are presented, and students are asked to analyze the case and conclude the type of diseases associated with the patient's eye and the appropriate treatment. 1. Use of modern technologies: such as augmented reality or virtual reality to simulate various disease cases and train students to diagnose them in an interactive manner.

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56. Course Structure					
Week	**Hour**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
First	6	Theoretical and practical knowledge	National program for control of blindness	• In presence	Quarterly and weekly tests.
Second	6		National program for control of blindness		
Third	6		Acute loss of vision , differential diagnosis		
Fourth	6		Acute loss of vision , differential diagnosis		
Fifth	6		Gradual loss of vision		
Sixth	6		Gradual loss of vision		
Seventh	6		Painful eye : differential diagnosis		
Eighth	6		Painful eye : differential diagnosis		
Ninth	6		Red eye : differential diagnosis		
Tenth	6		Red eye : differential diagnosis		
eleventh	6		Information , education and communication		
twelfth	6		Rehabilitation of visually handicapped		
Thirteen	6		Rehabilitation of visually handicapped		
fourteen	6		National program for control of blindness		
fifteen	6		Revision		

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

58.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	College of Health and Medical Techniques/ Baghdad
Main references (sources)	Clinical Procedures In Primary Eye Care
Recommended books and references (scientific journals, reports...)	Clinical Procedures In Primary Eye Care
Electronic References, Websites	

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Course Description For Refractive Errors 2

59. Course Name:	
Refractive errors (2)	
60. Course Code:	
atuchm_VS224	
61. Semester / Year:	
First / 2024-2025	
62. Description Preparation Date:	
24/01/2025	
63. Available Attendance Forms:	
In presence	
64. Number of Credit Hours (Total) / Number of Units (Total)	
7 hours / 4 units	
65. Course administrator's name (mention all, if more than one name)	
Name:**Hassan Abdulhadi Jasim Aljaberi**	Email: **hassan.abdulhadi@uomus.edu.iq**
66. Course Objectives	
Course Objectives	5. Introducing students to the common types of refractive errors such as myopia, farsightedness, and astigmatism, and understanding their causes and mechanisms of occurrence. 6. Training students to use various devices and equipment to measure and monitor refractive errors, such as the retinoscope and autorefractometer. 7. Providing students with practical skills in determining the type of refractive error in a patient through eye examination and analyzing the results. 8. Identify the different methods of correcting refractive errors, such as eyeglasses, contact lenses, and corrective surgeries.
67. Teaching and Learning Strategies	
Strategy	6. Explanatory lectures: where the teacher explains the types of refractive errors, their causes, and their mechanisms in a theoretical manner, accompanied by presentations and illustrative pictures. 7. Practical presentations: The teacher shows how to use different devices to measure refractive errors, such as the retinoscope and the autorefractometer, and explains how to interpret the results. 8. Workshops: where students are divided into small groups, and they practice using devices and measuring refractive errors under the supervision of the teacher. 9. Clinical case study: Clinical cases of different patients with various refractive errors are presented, and students are asked to analyze the case and conclude the type of refractive error and appropriate treatment. 10. Using modern technologies: such as augmented reality or virtual reality to simulate.

68. Course Structure

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

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First	7	Quarterly and weekly tests.	**Strabismus (definition)**	attendance includes: - • Develop students' ability to communicate and interact with patients to clearly explain their condition and treatment options. • Enhancing students' thinking and analytical skills by studying clinical cases and practical examples of	Students' performance is continuously evaluated during practical lessons through quizzes, assignments and practical reports.
Second	7	Quarterly and weekly tests.	**Strabismus (type and diagnosis)**		
Third	7 7	Quarterly and weekly tests. Quarterly and weekly tests.	**Strabismus (correlation)**		
Fourth	7	Quarterly and weekly tests.	**Definition of Low vision and types**		
Fifth	7	Quarterly and weekly tests.	**Instrument and devices uses in low vision**		
Sixth	7	Quarterly and weekly tests.	**Test of low vision (V.A for far and Near)**		
Seventh	7	Quarterly and weekly tests.	**Visual field**		
Eighth	7	Quarterly and weekly tests.	**Magnification**	• different refractive errors.	
Ninth	7	Quarterly and weekly tests.	**Color blindness 1**		
Tenth	7	Quarterly and weekly tests.	**Color blindness 2**		
Eleventh	7	Quarterly and weekly tests.	**Writing prescription**		
Twelfth	7	Quarterly and weekly .tests	**Reading prescription**		

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Thirteenth	**7**	Quarterly and weekly tests.	**Transposition 1**		
fourteenth			**Transposition 2**		

69. Course Evaluation

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

70. Learning and Teaching Resources

Required textbooks (curricular books, if any)	3. American Journal of Ophthalmology 4. Journal of Refractive Surgery
Main references (sources)	1.Elkington, A. R., Frank, H. J., Greaney, M. J. (1999). Clinical Optics. United Kingdom: Wiley 2.Brodie, S. E. (n.d.). 2024-2025 Basic and Clinical Science Course, Section 3: Clinical Optics and Vision Rehabilitation. United States: American Academy of Ophthalmology. 3.Keirl A, Christie C. Clinical Optics and Refraction: A Guide for Optometrists, Contact Lens Opticians and Dispensing Opticians: Elsevier Health Sciences; 2007.
Recommended books and references (scientific journals, reports…)	Optometrist Guide by Hassan A. Aljaberi
Electronic References, Websites	3. EyeWiki (https://eyewiki.aao.org/Refractive_Errors) 4. All About Vision (https://www.allaboutvision.com/resources/refractive-errors.)

قسم تقنيات
فحص البصر

Course Description For Medicines

Course name
Medicines
Course code
atuchm_VS226
the chapter/First semester year
Annual/ 2024-2025
Date this description was prepared
1/20/2025
Available attendance forms
Number of study hours (total) / Number of units (total)
Number of hours (2) Number of units (2)
Name of the course administrator (if more than one name is mentioned)
the name : Dr. Haider Khader Khattar Email: haider.khattarckm11@atu.edu.iq

Course objectives	
General objective: Student educationEye medications Student educationMethods of giving medications Methods of drug absorption through the eye Specific objective: To teach the student to organize work and follow the scientific sequence in processing. And direct dealing withFirst aid and necessary treatment for the eye and the risks of medications without consulting a specialist doctor	Subject objectives

Teaching and learning strategies	
Direct guidance and follow-up Creating a good role model among students Theoretical tests Duties.	**Strategy**

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Course structure 2					
Evaluation method	**Learning method**	**Name of the unit or topic**	**Required learning outcomes**	**Watches**	**The week**
Practical tests, reports and studies	theoretical	Introduction	Study and knowledge	2	1
Practical tests and exams Theory, reports and studies	theoretical	Principles of drug therapy	Study and knowledge	2	2
Practical tests and exams Theory, reports and studies	theoretical	Adrenergic drug	Study and knowledge	2	3
Practical tests and exams Theory, reports and studies	theoretical	Drug affects the cardiovascular system	Study and knowledge	2	4
Practical tests and exams Theory, reports and studies	theoretical	**Drugs affecting the endocrine system**	Study and knowledge	2	5
Practical tests and exams Theory, reports and studies	theoretical	Systemic pharmacology	Study and knowledge	2	6
Practical tests and exams Theory, reports and studies	theoretical	Clinical applications	Study and knowledge	2	7
Practical tests and exams Theory, reports and studies	theoretical	Ocular pharmacology	Study and knowledge	2	8
Practical tests and exams Theory, reports and studies	theoretical	Drug affecting central nervous system	Study and knowledge	2	9
Practical tests and exams Theory, reports and studies	theoretical	**Principal drug**	Study and knowledge	2	10
Practical tests and exams Theory, reports and studies	theoretical	**Drug of abuse**	Study and knowledge	2	11
Practical tests and exams Theory, reports and studies	theoretical	Chemotherape	Study and knowledge	2	12

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		utic -1			
Practical tests and exams Theory, reports and studies	theoretical	Chemotherapeutic-11	Study and knowledge	2	13
Practical tests and exams Theory, reports and studies	theoretical	Principle of drug therapy	Study and knowledge	2	14
Practical tests and exams Theory, reports and studies	theoretical	Anti-inflammatory	Study and knowledge	2	15

Headquarter evaluation .١

Grade distribution from07According to the tasks assigned to the student, such as daily preparation, daily, oral, monthly and written exams, and reports.....etc

Learning and teaching resources .٢

Text book of visual science and clinical optometry By Bikas Bahttacharyya	Required textbooks (methodology if any)
Clinical pearls for optometry By Roger F.Filips	Main References (Sources)
Optometry magazines of American ophthalmology and optometry academia	Recommended supporting books and references (scientific journals, reports, etc.)
	Electronic references, websites
Medical Terminology Lecture :Introduction Medical Terminology denote condition or state Medical Terminology Lecture :Introduction Suffix: Singular vs. Plural Medical Terminology Denotes Medical Actions Medical Terminology prefixes Denotes Size,Number, time and place Medical terminology terms concerning the body as a w hole	Lectures

قسم تقنيات
فحص البصر

Course Description For Laser in Ophthalmology

1. Course Name:
Laser in Ophthalmology
2. Course Code:
Atuchm-Vs227
3. Semester / Year:
second Semester 2024-2025
4. Course Description Preparation Date:
12-5-2025
5. Available Attendance Forms:
In-person
6. Total Credit Hours / Total Units:
4 hours per week / 3 units
7. Course Administrator's Name:
Name: Dr. Fatima Abbas Shaker **Email: fatima.abbas@atu.edu.iq**
8. Course Objectives:
General Objectives: • Provide the student with basic knowledge about the structure and functional parts of the eye and how they are affected by lasers for diagnostic and therapeutic purposes. Specific Objectives: • Equip the student with the scientific concepts necessary to understand specialized lessons related to laser applications in ophthalmology, enabling them to comprehend clinical and technological applications.

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9. Teaching and Learning Strategies:

2. Printed lectures where scientific material is discussed and important notes are highlighted.
3. Reading of reference books and various scientific papers individually or in groups.
4. Discussions in small and large groups.
5. Answering questions during the lecture.
6. Lectures and visual aids, such as the use of a projector.

10. Course Structure:

Week	Hours	Learning Outcome	Unit / Topic Title	Learning Method	Assessment Method
1	4	Understanding the lecture	Introduction to Laser Physics	Theoretical + Practical	Daily, oral, written exams; reports; discussions
2	4	Understanding the lecture	Types of Lasers Used in Ophthalmology	Theoretical + Practical	Daily, oral, written exams; reports; discussions
3	4	Understanding the lecture	Laser in Medicine	Theoretical + Practical	Daily, oral, written exams; reports; discussions
4	4	Understanding the lecture	Introduction to Laser-Tissue Interaction	Theoretical + Practical	Daily, oral, written exams; reports; discussions
5	4	Understanding the lecture	Laser Interaction with Eye Tissues	Theoretical + Practical	Daily, oral, written exams; reports; discussions
6	4	Understanding the lecture	Clinical Applications of Lasers in Eye Diseases	Theoretical + Practical	Daily, oral, written exams; reports; discussions
7	4	Understanding the lecture	Advantages and Risks of Laser Eye Treatment	Theoretical + Practical	Daily, oral, written exams; reports; discussions
8	4	Understanding the lecture	Laser Safety Protocols	Theoretical + Practical	Daily, oral, written exams; reports; discussions
9	4	Understanding the lecture	Laser in Diagnosis	Theoretical + Practical	Daily, oral, written exams; reports; discussions
10	4	Understanding the lecture	Optical Coherence Tomography (OCT)	Theoretical + Practical	Daily, oral, written exams; reports; discussions
11	4	Understanding the lecture	Applications of OCT in Medical	Theoretical + Practical	Daily, oral, written exams; reports; discussions

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			Diagnosis		
12	4	Understanding the lecture	Practical Applications and Use of Devices in Ophthalmology	Theoretical + Practical	Daily, oral, written exams; reports; discussions

11. Course Evaluation:

Ongoing Assessment: Theory: 25 | Practical: 15
Final Exam: Theory: 35 | Practical: 25

12. Learning and Teaching Resources:

Required Textbooks (Curriculum):

- *Principles and Practice of Laser Surgery*
- *Laser in Ophthalmology*

Primary References (Sources):

- Nature
- Science
- E-books and websites

Recommended Supplemental Books and References:

- Review of modern scientific websites specialized in laser science to keep up with recent developments.

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