

Ministry of Higher Education and Scientific Research

Scientific Supervision and Evaluation Authority

Department of Quality Assurance and Academic Accreditation

Accreditation Section



**Guide for the Description of the Academic
Program and Courses
For the Optics Techniques Department
2026**

Introduction

An educational program is a coordinated and organized package of study decisions comprising procedures and experiences arranged as study courses, aimed at building and refining the skills of graduates so as to qualify them to meet the requirements of the labor market. It is reviewed and evaluated annually through internal or external audit procedures and programs, such as the external examiner program.

The academic program description provides a brief summary of the main features of the program and its courses, indicating the skills to be acquired by students in accordance with the objectives of the academic program. The importance of this description lies in its being the cornerstone for obtaining program accreditation; it is written collaboratively by the teaching staff under the supervision of the department's scientific committees.

This guide includes a description of the academic program after updating the items and paragraphs of the previous guide in light of the developments in Iraq's education system, covering the academic program description in its traditional form (annual and semester systems), as well as the adoption of the circulated academic program description pursuant to the letter of the Studies Department No. 3–2906 dated 3–5–2023 concerning programs that follow the Bologna pathway.

In this regard, we can only emphasize the importance of writing descriptions of academic programs and courses to ensure the proper conduct of the academic process.

وزارة التعليم العالي والبحث العلمي
جهاز الإشراف والتقويم العلمي
دائرة ضمان الجودة والاعتماد الأكاديمي

استمارة وصف البرنامج الأكاديمي للكليات والمعاهد

الجامعة : الترات
الكلية/المعهد : كلية التقنيات الهندسية والطبية
القسم العلمي : قسم تقنيات طبخريات
تاريخ ملء الملف : ٢٠١٥ / ٩ / ٢٥

التوقيع :
اسم المعاون العلمي : د. د. سنده شامر عبد الوهاب
التاريخ : ٢٠١٥ / ٩ / ٢٥

التوقيع :
اسم رئيس القسم : د. طارق منير الله
التاريخ : ٢٠١٥ / ٩ / ٢٥



دقق الملف من قبل
شعبة ضمان الجودة والأداء الجامعي
اسم مدير شعبة ضمان الجودة والأداء الجامعي : د. محمد انور
التاريخ : ٢٠١٥ / ٩ / ٢٥
التوقيع :

مصادقة السيد العميد
٢٠٢٠
د. حاتم عبد السلام

1. Program Vision

The Optics Department occupies a distinguished scientific position in the academic community and plays an active and influential applied role in the technical and medical fields, thereby meeting the needs of society and the requirements of the labor market.

2. Program Mission

Providing academic education and intensive practical training to prepare personnel capable of serving the community with skill and responsibility.

3. Program Objectives

1. Preparing competent optics technicians.
2. Accurate diagnosis of visual defects and the promotion of visual health awareness.
3. Promoting medical professional ethics.
4. Supporting scientific research.

4. Program Accreditation

There is no program accreditation yet; the department is working to meet program accreditation requirements.

5. Other External Influences

Ministerial instructions; twinning entity; labor market.

6. Program Structure

Program Structure	Number of Courses	Study Unit	Percentage	Notes*
Institution Requirements	4	8	8.5%	
College Requirements	2	4	4.2%	
Department Requirements	41	198	87%	
Summer Training				Fulfilled
Others				

* Notes may indicate whether the course is compulsory (core) or elective.

7. Program Description

Academic Year / Level	Course / Module Code	Course / Module Title	Credit Hours	
First Stage First Semester			Theory	Practical
		Head and Neck Anatomy	2	5
		Principles of Chemistry	2	4
		Medical and Optical Physics 1	3	5
		Biology 1	2	4
		Computer Fundamentals	1	2
		Human Rights and Democracy	2	-
		Medical Terminology	2	-
First Stage Second Semester		Anatomy of the Eye	2	5
		Biochemistry	2	4

		Medical and Optical Physics 2	3	5
		Biology 2	2	4
		Arabic Language	2	-

Academic Year / Level	Course / Module Code	Course / Module Title	Credit Hours	
			Theory	Practical
Second Stage First Semester		Physiology of the Eye and Vision 1	2	4
		Optical Instruments 1	2	5
		Ocular Health 1	2	4
		Refractive Errors 1	2	5
		Statistical Applications 1	1	3
		Crimes of the Baath Regime in Iraq	2	0
		Computer Applications	1	2
Second Stage Second Semester		Physiology of the Eye and Vision 2	2	4
		Optical Instruments 2	2	5
		Ocular Health 2	2	4
		Refractive Errors 2	2	5
		Statistical Applications 2	1	3
		Pharmacology	2	0
		Lasers in Ophthalmology	1	3
		Arabic Language	2	0

Academic Year / Level	Course / Module Code	Course / Module Title	Credit Hours	
			Theory	Practical
Third Stage – First Semester		Ocular Manifestations of Systemic Disorders 1	1	3
		Ophthalmic Optics 1	2	4

		Strabismus 1	2	4
		Refractive Errors 3	2	4
		Optical Instruments 3	2	4
		Laser Treatment of Eye Diseases	1	3

Academic Year / Level	Course / Module Code	Course / Module Title	Credit Hours	
			Theory	Practical
Third Stage – Second Semester		Ocular Manifestations of Systemic Disorders 1	1	3
		Ophthalmic Optics 2	2	4
		Strabismus 2	1	4
		Refractive Errors 4	2	4
		Optical Instruments 4	2	4
		Research Methodology	2	0

Academic Year / Level	Course / Module Code	Course / Module Title	Credit Hours	
			Theory	Practical
Fourth Stage – First Semester		Ocular Diseases 1	2	2
		Strabismus 3	2	4
		Workshop 1	0	4
		Spectacles and Contact Lenses 1	2	4
		Ocular Prosthetics 1	2	4
		Ocular Radiology and Ultrasonography	1	2
		Pediatric Ophthalmology	1	2

Academic Year / Level	Course / Module Code	Course / Module Title	Credit Hours	
			Theory	Practical
Fourth Stage - Second Semester		Ocular Diseases 2	2	2
		Strabismus 4	2	4
		Spectacles and Contact Lenses 2	2	4
		Ocular Prosthetics 2	2	4
		Workshop 2	0	4
		Professional Ethics	2	0
		Graduation Project	0	6

8. Expected Program Learning Outcomes

Knowledge

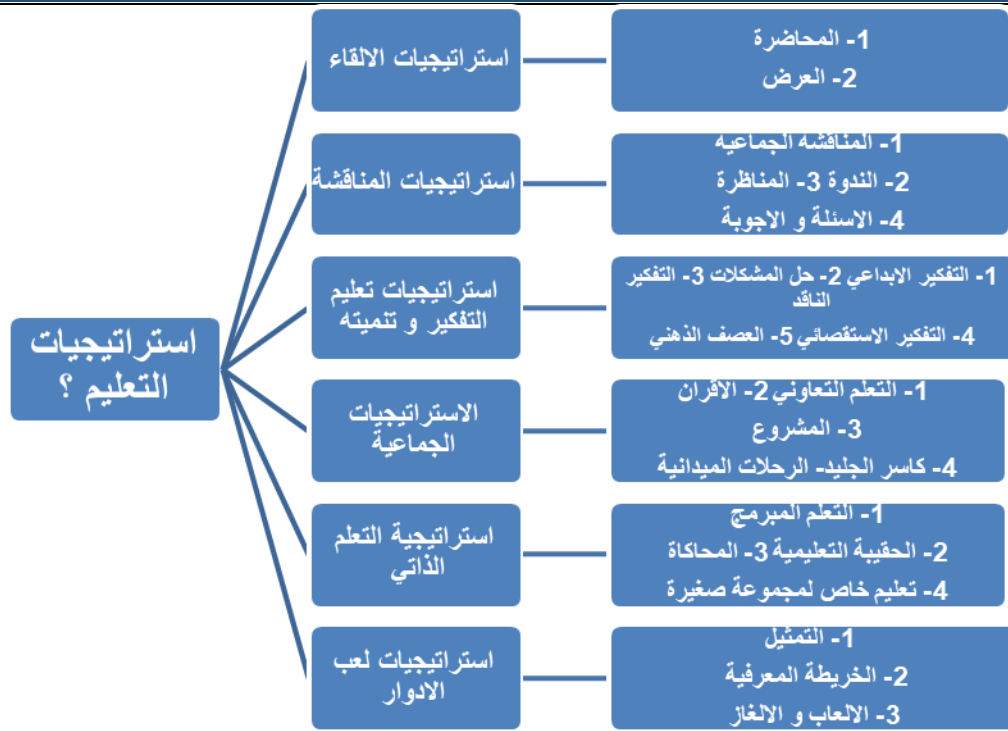
- A. Upon completion of the program, the graduating student will be able to:**
- A1. Explain the fundamental principles of physical, geometric, and clinical optics and vision science.**
 - A2. Describe the anatomical and physiological structure of the eye and the visual system and their relationship to the process of vision.**
 - A3. Clarify the causes and manifestations of refractive errors, vision disorders, and common eye diseases.**
 - A4. Describe the scientific foundations of the devices and techniques used in the examination and diagnosis of visual problems.**
 - A5. Explain the principles of ophthalmic lenses, contact lenses, and visual aids.**

Skills

- B. Upon completion of the program, the student will be able to:**
- B1. Perform comprehensive visual examinations in accordance with approved professional standards.**
 - B2. Use modern optical and diagnostic instruments efficiently and safely.**
 - B3. Evaluate the efficiency of visual functions and diagnose primary visual problems.**
 - B4. Provide primary vision care and refer pathological cases requiring**

specialized intervention. B5. Select and fit lenses, spectacles, and contact lenses in accordance with the needs of beneficiaries.	
C1. Work with a team spirit. C2. Adhere to university institutional ethics. C3. Receive information with cognitive openness. C4. Demonstrate dedication to the assigned work.	
Values	
D. General and transferable skills (other skills related to employability and personal development). D1. Presentation and opinion-expression skills in lectures. D2. Discussion during lectures. D3. Conducting experiments through the assignment of homework to students. D4. Group management by delegating the collection of assigned homework to one of the students.	

.9Teaching and Learning Strategies



10. Assessment Methods

Oral and written examinations, combined; daily, semester, monthly, mid-semester, end-of-course, and annual examinations.

11. Faculty Members

Professional Development

Orientation of New Faculty Members

Participation in teaching methods and teaching licensure courses and obtaining certificates of completion, together with familiarity with the department's vision, mission, and objectives, and participation in the courses and programs accredited in the department.

Professional Development of Faculty Members

Holding seminars and courses; twinning with public colleges; using modern learning strategies; relying on recent research and books.

12. Admission Criteria

Central admission - Biological and Scientific branches, according to the instructions of the Ministry of Higher Education and Scientific Research and the decision of the university's eligibility committee.

13. Key Sources of Information about the Program

Study curricula; instructions of the Ministry of Higher Education and Scientific Research; academic programs; opinions of graduate students; the labor market; books and research; the Internet.

14. Program Development Plan

Holding seminars and courses; twinning with public colleges; utilizing the services of professors from public colleges.

Academic Year / Level	Course Code	Course Title	Core / Non-core	Cognitive Objectives				Program-Specific Skills Objectives				Affective and Values Objectives			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
First Stage (First Course)		Head and Neck Anatomy	Core	✓	✓	✓	✓	✓	✓	✓	✓				
		Principles of Chemistry	Core	✓	✓										
		Medical and Optical Physics 1	Core	✓	✓	✓		✓			✓				
		Biology 1	Core	✓	✓	✓	✓	✓	✓	✓	✓				
		Computer Fundamentals	Secondary	✓	✓		✓					✓	✓		✓
		Human Rights and Democracy	Secondary	✓	✓	✓		✓		✓					
		Medical Terminology	Secondary	✓	✓	✓	✓					✓	✓	✓	✓
First Stage (Second Course)		Anatomy of the Eye	Core	✓	✓	✓	✓	✓	✓	✓	✓				
		Biochemistry	Core	✓	✓			✓	✓	✓	✓				
		Medical and Optical Physics 2	Core	✓	✓	✓		✓			✓				
		Biology 2	Core	✓	✓	✓	✓	✓	✓	✓	✓				
		Arabic Language	Secondary	✓	✓		✓	✓		✓					

Second Stage (First Course)		Physiology of the Eye and Vision 1	Core	✓	✓	✓	✓	✓	✓	✓	✓						
		Optical Instruments 1	Core	✓	✓	✓	✓	✓	✓	✓							
		Ocular Health 1	Core	✓	✓	✓	✓	✓	✓	✓							
		Refractive Errors 1	Core	✓	✓	✓	✓		✓	✓	✓						
		Statistical Applications 1	Core	✓	✓	✓	✓	✓	✓	✓	✓						
		Crimes of the Baath Regime in Iraq	Secondary	✓	✓	✓	✓	✓	✓	✓							
		Computer Applications	Secondary	✓	✓		✓						✓	✓			✓
Second Stage (Second Course)		Physiology of the Eye and Vision 2	Core	✓	✓	✓	✓	✓	✓	✓	✓						
		Optical Instruments 2	Core	✓	✓	✓	✓	✓	✓	✓							
		Ocular Health 2	Core	✓	✓	✓	✓	✓	✓	✓							
		Refractive Errors 2	Core	✓	✓	✓	✓		✓	✓	✓						
		Statistical Applications 2	Core	✓	✓	✓	✓	✓	✓	✓	✓						
		Lasers in Ophthalmology	Secondary	✓	✓		✓										

		Pharmacology	Core	✓	✓	✓									
		Arabic Language	Secondary	✓	✓		✓	✓		✓	✓				✓

Academic Year / Level	Course Code	Course Title	Core / Elective	Cognitive Objectives				Program-Specific Skills Objectives				Affective and Values Objectives			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Third Stage (First Course)															
		Ocular Manifestations of Systemic Disorders 1	Core	✓	✓	✓	✓	✓	✓	✓					
		Ophthalmic Optics 1	Core	✓	✓	✓	✓	✓	✓	✓					
		Strabismus 1	Core	✓	✓		✓	✓		✓					
		Refractive Errors 3	Core	✓	✓	✓	✓	✓	✓	✓	✓				
Third Stage (Second)		Optical Instruments 3	Core	✓	✓	✓	✓	✓	✓	✓					
		Laser Treatment	Core	✓	✓	✓	✓	✓	✓	✓					✓

Course)		of Eye Diseases														
		Ocular Manifestations of Systemic Disorders 2	Core	✓	✓	✓	✓		✓		✓					
		Ophthalmic Optics 2	Core	✓	✓	✓	✓	✓	✓	✓	✓					✓
		Strabismus 2	Core	✓	✓	✓	✓	✓	✓		✓					
		Refractive Errors 4	Core	✓	✓	✓	✓		✓	✓	✓					
		Research Methodology	Core	✓	✓	✓	✓	✓	✓							✓

Academic Year / Level	Course Code	Course Title	Core /Elective	Cognitive Objectives				Program-Specific Skills Objectives				Affective and Values Objectives			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Fourth Stage (First											B4				

Fourth Stage (Second Course)		Ocular Diseases 1	Core	✓	✓	✓	✓	✓		✓					
		Strabismus 3	Core	✓	✓	✓	✓	✓	✓	✓					
		Spectacles and Contact Lenses 1	Core	✓	✓		✓	✓		✓					
		Ocular Prosthetics 1	Core	✓	✓	✓	✓	✓	✓	✓	✓				
		Ocular Radiology and Ultrasonography	Core	✓	✓	✓	✓	✓	✓	✓					
		Pediatric Ophthalmology	Core	✓	✓	✓	✓	✓	✓	✓					
		Workshop 1	Core	✓	✓	✓	✓		✓	✓	✓				
		Ocular Diseases 2	Core	✓	✓		✓					✓	✓		
		Strabismus 4	Core	✓	✓	✓	✓		✓						
		Spectacles and Contact Lenses 2	Core	✓	✓	✓	✓		✓						
		Ocular Prosthetics 2	Core	✓	✓	✓	✓		✓			✓	✓		
		Professional Ethics	Core	✓	✓	✓		✓	✓						
		Graduation Project	Core	✓	✓	✓		✓	✓						
		Workshop 2	Core	✓	✓	✓		✓	✓			✓	✓		

Course Descriptions

First Stage

Course Description Form

1. Course Title: Head and Neck Anatomy - First Stage
2. Course Code
3. Semester / Academic Year: Semester-based 2025-2026
4. Date of Preparation of This Description : 15-8-2025
5. Available Attendance Modes
Weekly in-person lectures only + practical laboratories
6. Total Study Hours (Total) / Total Units
Seven (7) hours weekly (45 theory + 60 practical) - four units
7. Name of the Course Coordinator (mention if more than one)

Name: Lect. Tariq Khairullah Hameed + Asst. Lect. Mohammed Fawzi

8. Course Objectives: Introducing the student to the terminology of anatomy and the components of the head and neck.

Course Learning Objectives

- **General Objectives:** The complex anatomical structure of the head and neck regions, with a central focus on supporting and protecting the visual system and the neural and vascular pathways.
- **Behavioral objectives:** the student will be able to describe and identify the anatomical structures, nerves, and blood vessels of the head and neck region accurately and relate them to clinical applications.

9. Teaching and Learning Strategies

Strategy

Using modern methods in teaching and learning, such as electronic display devices.
Discussion approach - stimulating questions - daily examinations.

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1.	two theory hours	Comprehension and understanding	Introduction of Anatomy and types.	Lecture delivery	Reports

2.	two theory hours	Comprehension and understanding	Introduction groups of terms anatomy.	Discussion	Examinations
3.	two theory hours	Comprehension and understanding	Body cavities	Role-playing	Examinations+ Reports
4.	two theory hours	Comprehension and understanding	Bones of the skull.	Role-playing	Examinations
5.	two theory hours	Comprehension and understanding	Blood vessels, nervous system, bones .	Role-playing	Examinations+ Reports
6.	two theory hours	Comprehension and understanding	Define of the brain	Discussion	Examinations+ Reports
7.	two theory hours	Comprehension and understanding	Arterial supply of the brain	Discussion	Examinations+ Reports
8.	two theory	Comprehension and	Skin of the face	Discussion	Examinations+ Reports

	hours	understanding			
9.	two theory hours	Comprehension and understanding	The bones (Skeleton) and Joins .	Discussion	Examinations+ Reports
10.	two theory hours	Comprehension and understanding	Anatomy of the face.	Discussion	Examinations+ Reports
11.	two theory hours	Comprehension and understanding	Neck (arteries, veins, lymph, nerve) .	Discussion	Examinations+ Reports
12.	two theory hours	Comprehension and understanding	Neck (muscles of the neck).	Discussion	Examinations+ Reports
13.	two theory hours	Comprehension and understanding	Define of the eye .	Discussion	Examinations+ Reports
14.	two theory hours		Structure of the eye		Examinations+ Reports
15.	two	Study,	Eye lid, conjunctiva	Discussion	Examinations+

	theory hours	knowledge, and practical application			Reports
11. Course assessment: 40 marks coursework, 60 marks final examination					
Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.					
12. Learning and Teaching Resources					
Required prescribed textbooks (curriculum-based, if any)					
Main References (Sources)			Netter Atlas of Human Anatomy, Gray's Anatomy for Students		
Supporting books and references recommended (scientific journals, reports, etc.)					
Electronic references, websites					

Course Description Form

1. Course Title : Computer Fundamentals

2. Course Code

3. Semester / Academic Year: Semester-based 2025-2026

4. Date of Preparation of This Description : 15-8-2025

5. Available Attendance Modes

In-person lectures only

6. Total Study Hours (Total) / Total Units

3 hours weekly / two units

7. Name of the Course Coordinator (mention if more than one)

Name: . Mustafa Haytham

Course Objectives: Preparing the student to acquire the basic skills for using the computer and its advanced office applications. Understanding the basics of software and dealing with digital systems to employ them in the academic and practical fields.

Course Learning Objectives

General Objectives: Preparing qualified, highly efficient technical personnel capable of

keeping pace with scientific and applied development in the specialization to serve the community.

Specific Objectives: Enabling the student to employ software and modern computer applications efficiently to accomplish academic and professional tasks related to his specialization.

1. Teaching and Learning Strategies

strategy	Using modern methods in teaching and learning, such as electronic display devices. Discussion approach - stimulating questions - daily examinations.
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2. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1.	1 theory + 2 practical	Comprehension and understanding	Microsoft Excel: Understanding Basic Terminology (Work sheet, Work file, Cell, Cell pointer, Cell Content, Row & Column reference),	Lecture delivery and discussion	Instant questions, reports, and examinations
			Building formula, Mathematical Operators, Hierarchy of the main mathematical operations; Managing Workbooks (Create new one ; Create from Template, Enter data, Moving around, Saving ; Opening ; Closing Workbooks)		

2.	1 theory + 2 Practical	Comprehension and understanding	Manipulating the contents (selecting cells; columns; rows; worksheet, using undo & redo, copying & moving data, changing column width & row height Auto filling technique; Deleting & Editing content; Delete & Insert row or column; Formatting cells (number; font; alignment; border; color and shading; protection of cells and work sheet)	Lecture delivery and discussion	Instant questions, reports, and examinations
3.	1 theory + 2 Practical	Comprehension and understanding	Creating simple and complex formula using different types of writing, Using absolute and relative address, Understanding common error values; Using common builtin functions (Sum, Average, Max, Min, Count, Count A, Count Blank, If , Round, Sqrt, Today, Day360, Left, Right, Mid, Trim) ; Copying Formulas; Insert & Deleting Worksheets; Formatting tables using Auto format	Lecture delivery and discussion	Instant questions, reports, and examinations
4.	1 theory + 2 Practical	Comprehension and understanding	Folder And Files Managements (Create, Copy, Cut, Delete, Rename, Find and Move); Common Keyboard Shortcuts; Undelete folder and files using Recycle Bin; Display the differences between Uninstall and Undelete or Delete.	Lecture delivery and discussion	Instant questions, reports, and examinations

5.	1 theory + 2 Practical	Comprehension and understanding	Working with charts (Create chart, select chart elements, changing chart types, positioning & resizing charts, chart & axis titles, changing background and color effects, changing data series color, adding or removing legend & data labels & data tables & grid lines); Sorting data Ascending & Descending, Sorting multiple fields, Filtering data using Auto and Customize type; Customizing printout using options, previewing & printing worksheet	Lecture delivery and discussion	Instant questions, reports, and examinations
6.	1 theory + 2 Practical	Comprehension and understanding	Understanding PowerPoint & Presentation; What does a presentation include; Working with presentations (Creating; Saving; Closing; Opening presentations); Moving around in the presentation; Managing the Slides (Inserting; Deleting; Rearranging Slides, Changing Layout, Changing or modifying themes	Lecture delivery and discussion	Instant questions, reports, and examinations
7.	1 theory + 2 Practical	Comprehension and understanding Comprehension and understanding	Managing Slide Objects (Using Select Versus Edit Mode; Manipulating Text; Create Tables & Charts; Inserting Pictures or Clip art or Multimedia); Creating a Master Slide; Animating Objects (Customizing the animation, Applying Slide Transitions); Running the Slide Show and set up the presentation; Previewing and Printing Presentation .	Lecture delivery and discussion Lecture delivery and discussion	Instant questions, reports, and examinations Instant questions, reports, and examinations

8.	1 theory + 2 Practical	Comprehension and understanding	The Internet, Browsers and the World Wide Web (The Internet, The World Wide Web, Web Browsers); Understanding Web Site Addresses (Web Site Protocols, Resource Names)	Lecture delivery and discussion	Instant questions, reports, and examinations
9.	1 theory + 2 Practical	Comprehension and understanding	Common Web Site/Page Elements; Browser Features and Functions (Browser Functions, Browser Features); Getting Connected; Defining Network; Advantages of Using Networks; Understanding Local Area Network (LAN) and Wide Area Network (WAN); Connected to the internet (Dial-Up Connection, Direct Connection); Domain and Sub Domain, Needs for Security & Firewalls	Lecture delivery and discussion	Instant questions, reports, and examinations
10.	1 theory + 2 Practical	Comprehension and understanding	Digital communication: How Can I Communicate with Others? (Electronic Mail, Instant Messages, Text Messages, VoIP, Video Conferencing, Chat Rooms, Social Networking Sites, Blogs, Presence, and Standards for Electronic Communication)	Lecture delivery and discussion	Instant questions, reports, and examinations
11.	1 theory + 2 Practical	Comprehension and understanding	Working with Email (Usernames, Passwords and Credentials)	Lecture delivery and discussion	Instant questions, reports, and examinations

12.	1 theory + 2 Practical	Comprehension and understanding	Using Microsoft Outlook (Creating New Messages,Receiving Messages, Working with Attachments, ManagingSpam, Emptying the Junk E-mail Folder, Automating Outlook)	Lecture delivery and discussion	Instant questions, reports, and examinations
13.	1 theory + 2 Practical	Comprehension and understanding	Digital Citizenship: Identifying Ethical Issues (Understanding Intellectual Property, Copyrights and Licensing); Protecting Your Data or Computer (Identifying Software Threats, Understanding Viruses), Protecting Yourself While Online; Buying Online; How Much Information Should I Share? Protecting Your Privacy)	Lecture delivery and discussion	Instant questions, reports, and examinations
14.	1 theory + 2 Practical	Comprehension and understanding	Finding Information: Searching for Information (Different types of Web Sites, searching a Specific WebSite); Using Search Engine Technology (UnderstandingHow Search Engines Work)	Lecture delivery and discussion	Instant questions, reports, and examinations
15.	1 theory + 2 Practical	Comprehension and understanding	Narrowing the Search; Evaluating the Information (Reliability and Relevance; Validity and Authenticity;Objectivity and Bias)	Lecture delivery and discussion	Instant questions, reports, and examinations
11. Course assessment: 40 marks coursework, 60 marks final examination					
Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.					
12. Learning and Teaching Resources					
Required prescribed textbooks (curriculum-based, if any)					

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Main References (Sources)	
Supporting books and references recommended (scientific journals, reports, etc.)	Computer Concepts (by June Jamrich Parsons): the comprehensive reference for computer fundamentals and information technology.
Electronic references, websites	

Course Description Form

8. Course Title : Human Rights and Democracy	
9. Course Code	
10. Semester / Academic Year: Semester-based 2025-2026	
11. Date of Preparation of This Description : 15-8-2025	

12. Available Attendance Modes

In-person lectures only

13. Total Study Hours (Total) / Total Units

2 hours weekly / two units

14. Name of the Course Coordinator (mention if more than one)

Name: Asst. Prof. Dr. Alaa Fahim

Course Objectives:

General Objectives: The student will learn about the historical development of human rights in the first semester, the types of freedoms, and democracy and its types..

Specific Objectives: The student will learn about the historical development of human rights and the role of international organizations in ensuring the protection and respect of human rights in the first semester, the effect of democracy on the Third World, and the future types of freedoms.

3. Teaching and Learning Strategies

Strategy

Using modern methods in teaching and learning, such as electronic display devices.

Discussion approach - stimulating questions - daily examinations.

4. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
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	2 theory +	Comprehension and understanding	The concept of human rights	Lecture delivery and discussion	Instant questions, reports, and examinations
2	2 theory	Comprehension and understanding	The most important fundamental characteristics of human rights	Lecture delivery and discussion	Instant questions, reports, and examinations
3	2 theory	Comprehension and understanding	Types of human rights	Lecture delivery and discussion	Instant questions, reports, and examinations
4	2 theory	Comprehension and understanding	Categories of human rights	Lecture delivery and discussion	Instant questions, reports, and examinations
5	2 theory	Comprehension and understanding	Human rights in ancient civilizations	Lecture delivery and discussion	Instant questions, reports, and examinations
6	2 theory	Comprehension and understanding	Human rights in the Middle Ages	Lecture delivery and discussion	Instant questions, reports, and examinations
7	2 theory	Comprehension and understanding	Human rights in Islam	Lecture delivery and discussion	Instant questions, reports, and examinations
		Comprehension and understanding		Lecture delivery and discussion	Instant questions, reports, and examinations

8	2 theory	Comprehension and understanding	Human rights in the Renaissance era:	Lecture delivery and discussion	Instant questions, reports, and examinations
9	2 theory	Comprehension and understanding	Human rights in the modern era: The two international covenants on human rights. The United Nations Charter. Regional charters of human rights.	Lecture delivery and discussion	Instant questions, reports, and examinations
10	2 theory	Comprehension and understanding	Non-governmental organizations and human rights: The International Committee of the Red Cross. Amnesty International. Human Rights Watch.	Lecture delivery and discussion	Instant questions, reports, and examinations
11	2 theory	Comprehension and understanding	National human rights organizations.	Lecture delivery and discussion	Instant questions, reports, and examinations

12	2 theory	Comprehension and understanding	Guarantees for the respect and protection of human rights at the national and international levels: Constitutions and laws. Freedom of the press and public opinion. Civil society organizations. Regional organizations (the Arab League, the European Union, the Organization of American States)	Lecture delivery and discussion	Instant questions, reports, and examinations
13	2 theory	Comprehension and understanding	Water and environmental awareness in Iraq: The general concept of awareness. Means of achieving awareness. Dimensions of water awareness.	Lecture delivery and discussion	Instant questions, reports, and examinations
14	2 theory	Comprehension and understanding	Water and environmental awareness in Iraq: Challenges facing water awareness. Proposed measures to solve the fresh water crisis.	Lecture delivery and discussion	Instant questions, reports, and examinations
15	2 theory	Comprehension and understanding	The concept of equality: The historical development of the concept of equality. The development of the idea of equality. Gender equality.	Lecture delivery and discussion	Instant questions, reports, and examinations
13. Course assessment: 40 marks coursework, 60 marks final examination					

Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.

14. Learning and Teaching Resources

Required prescribed textbooks (curriculum-based, if any)

Main References (Sources)

Supporting books and references recommended (scientific journals, reports, etc.)

The Universal Declaration of Human Rights and the relevant international covenants (issued by the United Nations).

The Constitution of the Republic of Iraq and the laws governing public freedoms and human rights.

Electronic references, websites

Course Description Form

15. Course Title : Principles of Chemistry

16. Course Code

17. Semester / Academic Year: Semester-based 2025- 2026

18. Date of Preparation of This Description : 15-8-2025

19. Available Attendance Modes

In-person lectures only

20. Total Study Hours (Total) / Total Units

6 hours weekly / four units

21. Name of the Course Coordinator (mention if more than one)

Name: . Huda Saken Izzat

Course Objectives: To provide graduates with strong scientific foundations in basic materials science, an understanding of the

nature of the devices and tools used in the field, the application of chemical principles to solve problems related to vision and lens manufacturing, and the development of innovation in eye care.

Course Learning Objectives	General Objectives: Learning the fundamentals of chemistry and chemical structures. Specific Objectives: Learning biochemistry and the chemical components of the human body.
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5. Teaching and Learning Strategies

Strategy	Using modern methods in teaching and learning, such as electronic display devices. Discussion approach - stimulating questions - daily examinations.
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5. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
16.	2 theory + 4 Practical	Comprehension and understanding	Chemistry of vision	Lecture delivery and discussion	Instant questions, reports, and examinations
17.	2 theory + 4 Practical	Comprehension and understanding	Chemical reaction in eye	Lecture delivery and discussion	Instant questions, reports, and examinations

18.	2 theory + 4 Practical	Comprehension and understanding	Molar solution and normal solution	Lecture delivery and discussion	Instant questions, reports, and examinations
19.	2 theory + 4 Practical	Comprehension and understanding	Problems and questions	Lecture delivery and discussion	Instant questions, reports, and examinations
20.	2 theory + 4 Practical	Comprehension and understanding	Redox reaction (Oxidation-Reduction)	Lecture delivery and discussion	Instant questions, reports, and examinations
21.	2 theory + 4 Practical	Comprehension and understanding	Oxidation stress in the eye	Lecture delivery and discussion	Instant questions, reports, and examinations
22.	2 theory + 4 Practical	Comprehension and understanding	Problems&questions	Lecture delivery and discussion	Instant questions, reports, and examinations
23.	2 theory + 4 Practical	Comprehension and understanding	Oxygen in the eye	Lecture delivery and discussion	Instant questions, reports, and examinations
24.	2 theory + 4 Practical	Comprehension and understanding	Water in the eye	Lecture delivery and discussion	Instant questions, reports, and examinations

25.	2 theory + 4 Practical	Comprehension and understanding	Tear film	Lecture delivery and discussion	Instant questions, reports, and examinations
26.	2 theory + 4 Practical	Comprehension and understanding	Carbone dioxide and nitric oxide in the eye	Lecture delivery and discussion	Instant questions, reports, and examinations
27.	2 theory + 4 Practical	Comprehension and understanding	Body fluid: blood, eye pressure	Lecture delivery and discussion	Instant questions, reports, and examinations
28.	2 theory + 4 Practical	Comprehension and understanding	alkane, alkene, alkyne	Lecture delivery and discussion	Instant questions, reports, and examinations
29.	2 theory + 4 Practical	Comprehension and understanding	problems and questions	Lecture delivery and discussion	Instant questions, reports, and examinations
30.	2 theory + 4 Practical	Comprehension and understanding	Molar solution	Lecture delivery and discussion	Instant questions, reports, and examinations
15. Course assessment: 40 marks coursework, 60 marks final examination					
Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.					
16. Learning and Teaching Resources					

Required prescribed textbooks (curriculum-based, if any)	
Main References (Sources)	
Supporting books and references recommended (scientific journals, reports, etc.)	Biosafety in Microbiological and Biomedical Laboratories Biological Safety Manual
Electronic references, websites	

Course Description Form

1. Course Title: Medical and Optical Physics 1&2

2. Course Code

3. Semester / Academic Year: First and Second Semesters 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes

In-person (theory lectures - practical laboratory)

6. Total Study Hours (Total) / Total Units

45 theory/practical hours (3 theory + 6 practical) - 5 units

7. Name of the Course Coordinator (mention if more than one)

Name: . Alaa Baqir+ . Wijdan Ehsan

8. Course Objectives

Course Learning

Objectives

General Objectives: By the end of the semester, the student will be able to understand optical phenomena in physics.

Specific Objectives:

Learning about light, the electromagnetic spectrum, and the formation of the rainbow.

1 Learning about optical phenomena such as reflection, refraction, polarization, and diffraction.

2 Learning about mirrors and their types, solving related problems, and the telescope as one of their applications.

3 Learning about the prism and lenses, their types and aberrations, and solving related problems.

4 Learning about the eye, its parts, and the devices used to examine it.

5 Learning about the mechanism of vision, the refractive errors that affect the eye, and their correction.

6 Learning about visual acuity.

7 Lasers, their types and applications.

9. Teaching and Learning Strategies

Strategy	I- Cognitive Objectives : A1 Understanding the nature of light and its electromagnetic behavior: refraction, reflection, diffraction, and interference. A2 Explaining the refraction of light inside the human eye and the formation of the image on the retina. A3 Applying physical principles in lens design and the correction of refractive defects. A4 Understanding the basics of the operation of optical devices such as the phoropter, keratometer, microscope, and laser. B - Course-specific skills objectives: 1. Measurement, experimentation, and the use of optical devices to calculate focal length, power, and magnification. 2. Tracing and drawing the paths of light rays in lenses, mirrors, and prisms. 3. Diagnosing and correcting refractive errors (myopia, hyperopia, astigmatism). 4. Writing accurate scientific reports and simulating optical systems. - Affective and Values Objectives: 1. The ability to relate theoretical material to practical reality. 2. The ability to diagnose problems and propose various alternatives to solve them. 3. The ability to link environmental variables and analyze the relationships between them. 4. Enhancing self-confidence and building character.
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10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
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	3 theory 5 practical	Theoretical lectures and practical application	Light and vision: introduction; light waves; light velocity; light rays and beams; electromagnetic spectrum	- Various examples from practical reality - In-person discussion in the classroom - Research - Scientific discussions	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
	3 theory 5 practical	Theoretical lectures and practical application	Reflection: definition; Reflection at plan surfaces; regular Reflection; ir regular reflection image formation by plane mirror; direction of image seen by eye. Refractive index	- In-person discussion in the classroom	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
	3 theory 5 practical	Theoretical lectures and practical application	Lenses: definition; focal length; lens power; types focal points,thin lens formula.,	- In-person discussion in the classroom	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
	3 theory	Theoretical lectures and practical application	Examples and tutorials	• Brainstorming • Discussions	-1 Daily homework (discussion,

	5 practical			Exercises	participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
5	3 theory 5 practical	Theoretical lectures and practical application	Notation: aberration. (Define, type)	- Brainstorming - Discussions - Exercises	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
5	3 theory 5 practical	Theoretical lectures and practical application	Mirror (definition; focal length, type)	In-person discussion in the classroom	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
7	3 theory 5 practical	Theoretical lectures and practical application	Refraction: definition; Refraction index ;total internal Reflection, critical angl.	- Brainstorming - Discussions	-1 Daily homework (discussion, participation, research papers)

					-2 Short quizzes -3 Examinations (coursework and final)
3	3 theory 5 practical	Theoretical lectures and practical application	Reflection at curved mirror, spherical mirror, type of spherical mirror, rays' diagram for a concave and convex	- Brainstorming - Discussions	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
0	3 theory 5 practical	Theoretical lectures and practical application	Magnification, mirror equation, examples	- Brainstorming - Discussions	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
0	3 theory 5 practical	Theoretical lectures and practical application	dispersion	- Scientific material - Lectures	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations

					(coursework and final)
1	3 theory 5 practical	Theoretical lectures and practical application	polarization	• Scientific material • Lectures • Discussions	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
2	3 theory 5 practical	Theoretical lectures and practical application	Diffraction: definition; concept; grating; mechanism; constructive And destructive.	• Scientific material • Lectures • Discussions	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
3	3 theory 5 practical	Theoretical lectures and practical application	prism	• Scientific material • Lectures • Discussions	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)

4	3 theory 5 practical	Theoretical lectures and practical application	Eye: definition; parts; focusing element; photoreceptors cells accommodation.	• Brainstorming • Discussions • Exercises	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
5	3 theory 5 practical	Theoretical lectures and practical application	Real & the apparent depth	• Brainstorming • Discussions • Exercises	-1 Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
6	3 theory 5 practical		Eye: definition, parts, focusing (vision), Refractive error Eye function (myopia, hypermetropia, astigmatism)	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
7	3 theory		Nanomaterials and Direct Air Capture of CO ₂ – Capture or Separation Technologies – New Roads into CO ₂ Capture: Direct Air Capture	• Brainstorming • Discussions	1. Daily homework (discussion,

	5 practical		and Nanomaterials	Exercises	participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
8	3 theory 5 practical		Nanotechnology to Hydrogen Production – Photocatalytic Water Splitting Reaction – Nano Semiconductor Materials for Photocatalytic Water Splitting – Photolytic H2 Evolution Based on Nanoenhanced Materials	- Brainstorming - Discussions - Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
9	3 theory 5 practical		Visual acuity: introduction ,definition; measurements ,applications, recording ,magnification, requirements	- Brainstorming - Discussions - Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
10	3 theory 5 practical		Visual acuity: introduction ,definition; measurements ,applications, recording ,magnification, requirements	- Brainstorming - Discussions - Exercises	1. Daily homework (discussion, participation, research papers)

					-2 Short quizzes -3 Examinations (coursework and final)
1	3 theory 5 practical		Retinal image : examples , size of 20/20 letters	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
2	3 theory 5 practical		Energy sector products using nanomaterials – Light emitting diodes Batteries – Catalytic reactors – Capacitors, Super capacitors	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
3	3 theory 5 practical		Laser, define ,application in eye,the interaction of rays with materials	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations

					(coursework and final)
4	3 theory 5 practical		Laser in medicine ,properties ,advantage ,disadvantage. Laser activity laser type	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
5	3 theory 5 practical		Nanomaterials for the Conversion of Carbon Dioxide into Renewable Fuels and Value- Added Products – Theoretical Potentials for Electrochemical Reduction of CO ₂ – Effect of Particle Size on Electrode Performance in Electrochemical CO ₂ Reduction Reaction	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
6	3 theory 5 practical		Laser treatment ,Argon lasrt(define, advantage,disadvantage)	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)

7	3 theory 5 practical		Solar energy technology – Availability of solar radiation – Photovoltaic devices – Dye sensitized solar cells – Photoelectrochemical cells for hydrogen production	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
8	3 theory 5 practical		Coherent sources ,single slit ,double slit, effect on the eye	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
9	3 theory 5 practical		Laser treatment , ND-YAG laser(define, advantage,disadvantage)	• Brainstorming • Discussions • Exercises	1. Daily homework (discussion, participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
10	3 theory		Nanotechnology in renewable energy systems – Nanotechnology enabled renewable energy technologies – Energy transport, conversion	• Brainstorming • Discussions	1. Daily homework (discussion,

	5 practical		and storage – Nano, micro and meso scale phenomena and devices.	• Exercises	participation, research papers) -2 Short quizzes -3 Examinations (coursework and final)
1. Course Assessment					
Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc. Coursework (25 theory marks + 15 practical marks) Final (35 theory marks + 25 practical marks)					
12. Learning and Teaching Resources					
Required prescribed textbooks (curriculum-based, if any)			. Optics Made Easy: Last Minute Review Of Clinical Optics (Sirang, 2020). 2. Basic and Clinical Science Course: Clinical Optics (AAO, 2021). 3. Introduction to Modern Optics (Fowles, 2012).		
Main References (Sources)					
Supporting books and references recommended (scientific journals, reports, etc.)					
Electronic references, websites					
Course Description Form 1. Course Title: Biology 1					

2. Course Code

3. Semester / Academic Year: Semester-based 1+2 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2 theory x 15 weeks) + (4 practical x 15 weeks) = (90 hours) per semester / 4 units

7.

Name: Asst. Lect. Mustafa Haytham

8. Course Objectives

General Objectives: Learning about living cells.

Specific Objectives: Learning about the types of cells and tissues and the histological structure of the eye.

9. Teaching and Learning Strategies

Strategy	• Brainstorming strategy • Modeling learning strategy • Group work or cooperative learning strategy • Discussion strategy • Project-based strategy • Problem-solving or problem-based learning strategy • Mastery learning strategy Blending different strategies
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10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practical	Comprehension and understanding	Definition of Biology, Biological Kingdom.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
2	2 theory + 4 practical	Comprehension and understanding	Prokaryotes and eukaryotes.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
3	2 theory + 4 practical	Comprehension and understanding	The cell: Introduction, structure and function to the organelle .	Lecture method with presentation of illustrative images and short films via	Oral and written examination

				display screens	
4	2 theory + 4 practical	Comprehension and understanding	The cell : Introduction, structure and function to the organelles (Mitochondria, Free ribosomes , Rough endoplasmic reticulum, smooth endoplasmic reticulum, Golgi apparatus, Lysosomes (primary and secondary lysosomes), Microtubules ,cilia, flagella and centrioles.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
5	2 theory + 4 practical	Comprehension and understanding	The tissue (types and properties) .	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
6	2 theory + 4 practical	Comprehension and understanding	Classification tissue .	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
7	2 theory + 4 practical	Comprehension and understanding	Nucleic acid, DNA structure, properties	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
8	2 theory + 4 practical	Comprehension and understanding	RNA structure, properties .	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination

				Presentation	
9	2 theory + 4 practical	Comprehension and understanding	Transportation of biological waste International Transport Regulations The Basic Triple Packaging System	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
10	2 theory + 4 practical	Comprehension and understanding	Overview of biological safety and security equipment.	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
11	2 theory + 4 practical	Comprehension and understanding	Introduction to Biosafety and Security	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
12	2 theory + 4 practical	Comprehension and understanding	biosafety rules simulation 3D	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
13	2 theory + 4 practical	Comprehension and understanding	Biosafety training	Lecture method and presentation and short illustrative films via Display screens	Oral and written examination

14	2 theory + 4 practical	Comprehension and understanding	Biosafety training	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
15	2 theory + 4 practical	Comprehension and understanding	exam	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main References (Sources)	-Campbell Biology Medical Microbiology
Supporting books and references recommended	
Electronic references, websites	Google, Wikipedia, YouTube websites

Course Description Form

1. Course Title: Biology 2
2. Course Code
3. Semester / Academic Year: Semester-based 1+2 2025-2026
4. Date of Preparation of This Description : 15-8-2025
5. Available Attendance Modes
Weekly in-person theory and practical
6. Total Study Hours (Total) / Total Units
(30 hours theory) + (75 hours practical) = 105 hours / 4 units
7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Istabraq Haider Khyon

8. Course Objectives

Course Learning Objectives	General Objectives: Studying the various forms of life and their mutual relationship with the environment in which they live. Specific Objectives: Giving a clear picture of living organisms by knowing their structure and functions, and studying structure and functions of the cell
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9. Teaching and Learning Strategies

Strategy	1. Homework, reports, films, pictures 2. Quizzes, field visits 3. Using computers, touch screens, projectors, and overhead projectors. 4. Modeled teaching (using models)
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10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practical	Comprehension and understanding	Replication of DNA	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
2	2 theory + 4 practical	Comprehension and understanding	Transcription, protein synthesis and ty mutation .	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
3	2 theory + 4 practical	Comprehension and understanding	Division Cell (Mitosis and meiosis)	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
4	2 theory+4 practical	Comprehension and understanding	Mitosis	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
5	First monthly examination				
6	2 theory 4 practical	Comprehension and understanding	Gametogenesis.	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
7	2 theory + 4 practical	Comprehension and understanding	Spermatogenesis and oogenesis	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
8	2 theory + 4 practical	Comprehension and understanding	Bacterial staining techniques, Gram sta	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
9	2 theory+ 5 practical	Comprehension and understanding	Media and nutritional requirement .	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination

10	2 theory 4 practical	Comprehension and understanding	Introduction of Parasite .	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
	2 theory+ 4 practical	Comprehension and understanding	Introduction of Viruses	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
12	Second monthly examination		Introduction of Mycology.		
13	2 theory+ 4 practical	Comprehension and understanding	Sterilization and disinfecting	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
14	2 theory+ 4 practical	Comprehension and understanding	Control of microbial growth. Host defence components of human tears and their functions	Lecture method and presentation of images and short illustrative films v Display screens	Oral and written examination
15	2 theory 4 practical	Comprehension and understanding	Eye infections, Bacterial eye infection, Fungal eye infection. Parasitic eye infection, Viral eye infection.		Oral and written examination

11. Course Assessment	
40 coursework marks divided (25 theory + 15 practical); 60 final	
12. Learning and Teaching Resources	
Main References (Sources)	Human Biology, 7th Edition
Supporting books and references recommended (journals and research specific to immunology)	Research, conferences, and periodicals
Electronic references, websites	Google, Wikipedia, YouTube websites

Course Description Form

1. Course Title: Anatomy / Second Semester
2. Course Code

3. Semester / Academic Year: Semester-based 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2 theory x 15 weeks) + (5 practical x 15 weeks) = (105 hours) per semester / 4 units

7.

Name: Lect. Tariq Khairullah Hameed

8. Course Objectives: Familiarizing students with the basic medical information of anatomy as a core cornerstone for understanding the clinical sciences in the field of specialization

Course Learning Objectives

General Objectives: The student learns the terminology of Anatomy of the Eye.

Specific Objectives: The student learns the parts of the eye.

9. Teaching and Learning Strategies

Strategy
• Strategy: Lecture delivery and discussion. • Presentation of slides and short films. • Problem-solving or problem-based learning strategy.

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 5 practical	Comprehension and understanding	Lacrimal apparatus, and nerve supply of lacrimal gland	Discussion	Oral and written examination
2	2 theory + 5 practical	Comprehension and understanding	Layers of the cornea.	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
3	2 theory + 5 practical	Comprehension and understanding	Layers of the retina.	Lecture	Oral and written examination
4	2 theory + 5 practical	Comprehension and understanding	Structure of the lens.	Lecture	Oral and written examination
5	2 theory + 5 practical	Comprehension and understanding	Nerves of the eye.	Lecture	Oral and written examination
6	2 theory + 5 practical	Comprehension and understanding	Define the Muscles.	Skill mastery	Oral and written examination
7	2 theory + 5 practical	Comprehension and understanding	Extra ocular muscles.	Lecture	Oral and written examination
8	2 theory + 5 practical	Comprehension and understanding	Nerves of the muscles.	Blending different strategies	Oral and written examination
9	2 theory + 5	Comprehension and understanding	Blood supply of the eye.	Lecture	Oral and written examination

	practical	understanding			
10	2 theory + 5 practical	Comprehension and understanding	Layers of the eye	Lecture	Oral and written examination
11	2 theory + 5 practical	Comprehension and understanding	Layers of the eye	Lecture	Oral and written examination
12	2 theory + 5 practical	Comprehension and understanding	Contents of the eye.	Lecture	Oral and written examination
13	2 theory + 5 practical	Comprehension and understanding	Contents of the eye.	Lecture	Oral and written examination
14	2 theory + 5 practical	Comprehension and understanding	Contents of the eye.	Lecture	Oral and written examination
15	2 theory + 5 practical	Comprehension and understanding		Problem-solving	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

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Main References (Sources)	Drake R.L.(eds)(2019). <i>Gray's Anatomy for Students</i> .London :Elsevier. F.(2019).Atlas of Human Anatomy (7thed.). Philadelphia Netter PA: Saunders
Supporting books and references recommended (journals , and research specific to immunology)	
Electronic references, websites	http://teachmeanatomy.info

Course Description Form

1. Course Title: Medical Terminology/ First Semester
2. Course Code
3. Semester / Academic Year: Semester-based 2025-2026
4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2 theory x 15 weeks) = 30 hours per semester / 4 units

7.

Name: Asst. Lect. Mohammed Fawzi

8. Course Objectives: The student will acquire sufficient ability to understand and speak medical terminology with all medical staff and to communicate with patients in clear and understandable language

Course Learning Objectives

- **General Objectives:** Structural analysis / the basic rules for constructing medical terms.
- **Main suffixes;** suffixes that indicate a state or condition; suffixes that indicate medical reactions
- **Behavioral objectives:** prefixes related to measurement, colors, direction, and body position
- **Suffixes of size, time, and place, and word roots.**

9. Teaching and Learning Strategies

Strategy

- Strategy: Lecture delivery and discussion
- Presentation of slides and short films.
- Problem-solving or problem-based learning strategy.

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory	The student will be able to understand and speak medical terminology with the staff	Introduction- structural analysis- basic rules of medical word building	Discussion	Oral and written examination
2	2 theory	Comprehension and understanding	Major suffixes: (1) suffixes denoting a disease or condition	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
3	2 theory	Comprehension and understanding	Major suffixes: (1) suffixes denoting a disease or condition	Lecture	Oral and written examination
4	2 theory	Comprehension and understanding	Major suffixes: (1) suffixes denoting a disease or condition	Slide presentation	Oral and written examination
5	2 theory	Comprehension and understanding	Prefixes: (4) Prefixes of size, time, place, roots, and word terminals.	Lecture	Oral and written examination
6	2 theory	Comprehension and understanding	Terms concerning the body as a whole	Skill mastery	Oral and written examination
7	2 theory	Comprehension and understanding	Terms concerning oncology	Lecture	Oral and written examination
8	2 theory	Comprehension and understanding	Terms concerning the skin and its appendages	Blending different strategies	Oral and written examination
9	2 theory	Comprehension and understanding	Terms concerning the gastrointestinal tract	Lecture	Oral and written examination

10	2 theory	Comprehension and understanding	Terms concerning the respiratory system and cardiovascular system	Lecture	Oral and written examination
11	2 theory	Comprehension and understanding	Terms concerning the endocrine system	Lecture	Oral and written examination
12	2 theory	Comprehension and understanding	Terms concerning the blood and lymph system	Lecture	Oral and written examination
13	2 theory	Comprehension and understanding	Terms concerning the musculoskeletal system & nervous system	Lecture	Oral and written examination
14	2 theory	Comprehension and understanding	Terms concerning the special senses	Lecture	Oral and written examination
15	2 theory	Comprehension and understanding	Introduction- structural analysis- basic of medical word building	Problem-solving	Oral and written examination

11. Course Assessment

Theoretical coursework of 30 marks distributed over short daily examinations and oral and written monthly examinations, and 70 for the final examination

12. Learning and Teaching Resources

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Main References (Sources)	1. Nath, Judi Lindsley; Lindsley, Kelsey P. A Short Course in Medical Terminology. Wolters Kluwer Health, 2018.
Supporting books and references recommended	Collins, C. Edward: A Short Course in Medical Terminology Lippincott Williams Wilkins, Nov 5, 2013 - Medical - 468
Electronic references, websites	

Course Description Form

Course Title: Biochemistry
Course Code:
3. Semester / Academic Year: Semester-based 1+2 2025-2026
4. Date of Preparation of This Description: 15-8-2025

Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2x15 theory) + (4x15 practical) weekly = 90 hours in the First Semester / 4 units

(2x15 theory) + (x15 practical) weekly = 90 hours in the Second Semester / 4 units

7. Name of the Course Coordinator (mention if more than one)

Name: Prof. Dr. Qisma Mohammed Turki

8. Course Objectives

Course Learning Objectives	General Objectives: 1. Understanding the basic contents of analytical, organic, and biological chemistry 2. The ability and capability to solve problems encountered in the laboratory Behavioral objectives: 1. The ability to use the devices and laboratory tools used in analysis 2. The ability to analyze samples
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9. Teaching and Learning Strategies

Strategy	• Brainstorming strategy • Modeling learning strategy • Group work or cooperative learning strategy • Discussion strategy • Project-based strategy
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- Problem-solving or problem-based learning strategy
- Mastery learning strategy

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practical	Comprehension and understanding	Carbohydrates: classification, origin and optical activity	Lecture method, data show, display screens	Oral and written examination
2	2 theory + 4 practical	Comprehension and understanding	Monosaccharides, Disaccharides and Polysaccharides	Lecture method with data show	Oral and written examination
3	2 theory + 4 practical	Comprehension and understanding	Hydrolysis of Polysaccharides by (sugar and acid)	Lecture method with data show presentation	Oral and written examination
4	2 theory + 4 practical	Comprehension and understanding	Metabolism of Carbohydrate	Electronic lecture method	Oral and written examination
5	2 theory + 4 practical	Comprehension and understanding	Metabolic cell	Lecture, then conducting experiments	Oral and written examination
6	2 theory + 4 practical	Comprehension and understanding	proteins	Electronic lecture and discussion	Oral and written examination
7	2 theory + 4 practical	Comprehension and understanding	Problems & questions	Lecture and discussion	Oral and written examination
8	2 theory + 4 practical	Comprehension and understanding	peptide	Lecture, discussion, calculation	Oral and written examination

	practical				
9	2 theory + 4 practical	Comprehension and understanding	Role of protein in the: cornea, lens, r	Lecture - discussion	Oral and written examination
10	2 theory + 4 practical	Comprehension and understanding	Lipid: properties, classification	Lecture - data show	Oral and written examination
11	2 theory + 4 practical	Comprehension and understanding	Lipids in retina	Lecture - discussion, electro presentation	Oral and written examination
12	2 theory + 4 practical	Comprehension and understanding	Vitamins	Mastery learning	Oral and written examination
13	2 theory + 4 practical	Comprehension and understanding	Hormones	Blending different strategies	Oral and written examination
14	2 theory + 4 practical	Comprehension and understanding	Carbohydrates: classification, origin optical activity	Lecture - discussion - data s presentation	Oral and written examination
15	2 theory + 4 practical	Comprehension and understanding	Monosaccharaides, Disaccharides an Polysaccharides	Blending different strategies	Oral and written examination

3. Course Assessment

First semester: 40 marks (attendance and participation / monthly examination / semester examination)

Final examination: 60 marks

4. Learning and Teaching Resources

Required prescribed textbooks (curriculum-based, if any)

Main References (Sources)	lippincott Illustrated Reviews: Biochemistry
Supporting books and references recommended (scientific journals, reports, etc.)	
Electronic references, websites	<i>Wikipedia.com</i>

Course Description Form

Course Title: Arabic Language / Second Semester
Course Code
5. Semester / Academic Year: Second Semester 2025-2026
6. Date of Preparation of This Description: 15-8-2025
7. Available Attendance Modes
Daily attendance in the classrooms
8. Total Study Hours (Total) / Total Units
• 30 study hours (2 x 15 weeks) • 2 Study Unit
9. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Hisham

10. Course Objectives

Course Learning Objectives	• General Objectives: The student will be able to understand the rules of the Arabic language • The student will be able to form and construct correct sentences • Behavioral objectives: to succeed in recognizing correct language and diagnosing errors when they occur
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11. Teaching and Learning Strategies

Strategy	Knowledge enrichment, cooperative learning, questioning, and discussion.
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12. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
First	2	Mastery of the topic	Writing the hamzat al-qat' and al-qat'	Presentation and discussion	Test on the board
Second	2	Mastery of the topic	Punctuation marks in sentences	Presentation and discussion	Oral examination
Third	2	Enriching the student's knowledge	Writing the letters Dad and Dha	Presentation and discussion	Oral examination
Fourth	2	Understanding the topic	Writing the soft alif	Presentation and discussion	Oral examination

Fifth	2	The student's understanding and mastery	Writing the ta marbuta	Presentation and discussion	Homework
Sixth	2	Enriching the student's knowledge	Writing the open ta + how to look up words in the dictionary	Presentation and discussion	Preparing for the examination
Seventh	2	Assessing the student's level	Speech and its procedure: the noun	Presentation and discussion	Oral examination
Eighth	2	Reinforcing the student's knowledge of the topic	The distinguishing marks of the verb and the particle	Presentation and discussion	Homework
Ninth	2	Reinforcing the student's knowledge of the topic	End-of-first-semester examination	Presentation and discussion	Written examination
Tenth	2	Reinforcing the student's knowledge of the topic	Classification of verbs – the past tense	Presentation and discussion	Homework
Eleventh	2	Knowing the student's level	The present tense verb + the imperative verb	–	Written examination
Second	2	Understanding the topic	Indeclinable and declinable words	Presentation and discussion	Oral examination

Thirteenth	2	The student's mastery of the topic	Particles – their categories and function	Presentation and discussion	Oral examination
Fourteenth	2	Understanding the topic	Number	Presentation and discussion	Oral examination
Fifteenth	2	Understanding the topic	Language corrections	Presentation and discussion	Oral examination

13. Course Assessment

First semester: 40 marks (attendance and participation / monthly examination / semester examination)

Final examination: 60 marks

14. Learning and Teaching Resources

Required prescribed textbooks (curriculum-based, if any)	• Al-Wajiz in Arabic by Dr. Muhyi Hilal Al-Sarhan • Arabic for Non-Specialists by Prof. Hamid Mukhlif Al-Hiti and Prof. Abdulqadir Hassan • Sharh Ibn Aqeel - Alfiyyat Ibn Malik • Kitab Al-Minhaj in the Rules of Language and Grammar by Al-Antaki
Main References (Sources)	
Supporting books and references recommended (scientific journals, reports, etc.)	

Electronic references, websites	<i>Wikipedia.com</i>
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Second Stage

Course Description Form

1. Course Title: Computer	
2. Course Code :	
3. Semester / Academic Year: Semester-based 2025-2026	
4. Date of Preparation of This Description: 15-8-2025	
5. Available Attendance Modes	
Weekly in-person theory	
6. Total Study Hours (Total) / Total Units	
1 theory & 2 practical x 15 weeks = 45 hours, two units	
7. Name of the Course Coordinator (mention if more than one)	
Name: Asst. Lect.	
8. Course Objectives	
Course Learning Objectives	Providing the student with the basic skills for using the computer and its digital applications in managing visual data and health research.

9. Teaching and Learning Strategies

Strategy	Using modern teaching methods (electronic whiteboard and display screens) Using discussion methods, daily examinations, homework, and reports, as well as Stimulating questions, blending several teaching methods, and the skill mastery method.
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10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
First	1 theory & 2 practice	Comprehension and understanding	Security and Networking: What is a network? Types of networks. Basic network components.	whiteboard and display screen	theoretical and practical examinations homework and reports
Second	1 theory & 2 practice	Comprehension and understanding	Security and Networking (Cont.): Network Security Basics. Understanding network threats.	whiteboard and display screen	theoretical and practical examinations homework and reports
Third	1 theory & 2 practice	Comprehension and understanding	E-commerce: Concepts of Electronic banking services this include online banking: ATM and debit card services, Phone banking, SMS banking, electronic alert . ; Mobile banking	whiteboard and display screen	theoretical and practical examinations homework and reports

Fourth	1 theory & 2 practice	Comprehension and understanding	Computer Troubleshooting: Identifying and solving common hardware and software problems that computer users encounter.	whiteboard and display screen	theoretical and practical examinations homework and report
Fifth	1 theory & 2 practice	Comprehension and understanding	Computer Troubleshooting (Cont.): Basic troubleshooting techniques and tools for diagnosing and resolving issues.	whiteboard and display screen	theoretical and practical examinations homework and report
Sixth	1 theory & 2 practice	Comprehension and understanding	Introduction to AI: Definition of AI, History of AI, AI Techniques and Approaches	whiteboard and display screen	theoretical and practical examinations homework and report
Seventh	1 theory & 2 practice	Comprehension and understanding	Introduction to AI (Cont.): Key Characteristics of AI, Benefits of AI Challenges and Ethical considerations.	whiteboard and display screen	theoretical and practical examinations homework and report
Eighth	1 theory & 2 practice	Comprehension and understanding	The Role of AI in Modern Smartphones: AI-Driven Mobile Technologies Virtual Assistants (Siri, Google Assistant, Alexa)	whiteboard and display screen	theoretical and practical examinations homework and report
Ninth	1 theory & 2 practice	Comprehension and understanding	The Role of AI in Modern Smartphones (Cont.): Adaptive Learning, Real Time Translation Services	whiteboard and display screen	theoretical and practical examinations homework and report
Tenth	1 theory & 2 practice	Comprehension and understanding	Applications and Tools of AI: Overview of AI Applications in Various Industries,	whiteboard and display screen	theoretical and practical examinations

			Education and Healthcare.		homework and report
Eleventh	1 theory & 2 practical	Comprehension and understanding	Applications and Tools of AI (Cont.): transportation, Marketing and Advertising	whiteboard and display screen	theoretical and practical examinations homework and report
Twelfth	1 theory & 2 practical	Comprehension and understanding	Applications and Tools of AI (Cont.): Finance, Robotics and Automation Technologies	whiteboard and display screen	theoretical and practical examinations homework and report
Thirteenth	1 theory & 2 practical	Comprehension and understanding	AI and Society: How AI affects social, and international relations, AI and the future of humanity.	whiteboard and display screen	theoretical and practical examinations
Fourteenth	1 theory & 2 practical	Comprehension and understanding	Ethical Challenges in AI : AI ethics, privacy and surveillance, the impact of AI on the job market.	whiteboard and display screen	homework and report
Fifteenth	1 theory & 2 practical	Comprehension and understanding	The Future of AI: Future trends in AI, recent research and emerging technologies.	whiteboard and display screen	theoretical and practical examinations

11. Course Assessment

Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.

(40 annual coursework marks divided into 25 theory + 15 practical) (60 final examination marks divided into 35 theory + 25 practical).

12. Learning and Teaching Resources	
Required prescribed textbooks (curriculum-based, if any)	
Main References (Sources)	
Supporting books and references recommended (scientific journals, reports, etc.)	
Electronic references, websites	Some international websites specialized in the field of computing on the Internet.

Course Description Form

11. Course Title: Arabic Language
12. Course Code :
13. Semester / Academic Year: Semester-based 2025-2026
Second Course
14. Date of Preparation of This Description: 15-8-2025

15. Available Attendance Modes					
Weekly in-person theory					
16. Total Study Hours (Total) / Total Units					
2 hours weekly × 15 weeks = (30 hours), two units					
17. Name of the Course Coordinator (mention if more than one)					
Name: Asst. Lect. Hisham					
18. Course Objectives					
Course Learning Objectives		Developing the student's linguistic and expressive skills in academic writing and proper professional formulation in Arabic.			
19. Teaching and Learning Strategies					
Strategy		Using modern teaching methods (electronic whiteboard and display screens) Using discussion methods, daily examinations, homework, and reports, as well as Stimulating questions, blending several teaching methods, and the skill mastery method.			
20. Course Structure					
Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method

First	2 theory	Comprehension and understanding	Vocabulary details	whiteboard and display screen	theoretical and practical examinations homework and reports
Second	2 theory	Comprehension and understanding	Quranic expression: - Grammatically, in terms of sentence and text construction - Rhetorically, in terms of artistic impact	whiteboard and display screen	theoretical and practical examinations homework and reports
Third	2 theory	Comprehension and understanding	Quranic expression: - Grammatically, in terms of sentence and text construction - Rhetorically, in terms of artistic impact	whiteboard and display screen	theoretical and practical examinations homework and reports
Fourth	2 theory	Comprehension and understanding	Original case markers: damma, fatha, kasra Subordinate case markers: waw, alif, ya	whiteboard and display screen	theoretical and practical examinations homework and reports
Fifth	2 theory	Comprehension and understanding	The poet Badr Shakir Al-Sayyab	whiteboard and display screen	theoretical and practical examinations homework and reports
Sixth	2 theory	Comprehension and understanding	Inna and its sisters	whiteboard and display screen	theoretical and practical examinations homework and reports

Seventh	2 theory	Comprehension and understanding	The difference between inna and anna	whiteboard and display screen	theoretical and practical examinations homework and reports
Eighth	2 theory	Comprehension and understanding	Inna and its sisters	whiteboard and display screen	theoretical and practical examinations homework and reports
Ninth	2 theory	Comprehension and understanding	The five verbs	whiteboard and display screen	theoretical and practical examinations homework and reports
Tenth	2 theory	Comprehension and understanding	Language errors	whiteboard and display screen	theoretical and practical examinations homework and reports
Eleventh	2 theory	Comprehension and understanding	Linguistic information	whiteboard and display screen	theoretical and practical examinations homework and reports
Twelfth	2 theory	Comprehension and understanding	The dual and its declension	whiteboard and display screen	theoretical and practical examinations homework and reports
Thirteenth	2 theory	Comprehension and understanding	Types of plurals	whiteboard and display screen	theoretical and practical examinations

Fourteenth	2 theory	Comprehension and understanding	The subject and the predicate	whiteboard and display screen	homework and reports
Fifteenth	2 theory	Comprehension and understanding	The engineering of grammar	whiteboard and display screen	theoretical and practical examinations

13. Course Assessment

Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.

(40 annual coursework marks divided into 25 theory + 15 practical) (60 final examination marks divided into 35 theory + 25 practical).

14. Learning and Teaching Resources

Required prescribed textbooks (curriculum-based, if any)	
Main References (Sources)	
Supporting books and references recommended (scientific journals, reports, etc.)	
Electronic references, websites	Some international websites specialized in the field of biostatistics on Internet.

Course Description Form

1. Course Title : Lasers in Ophthalmology
2. Course Code:
3. Semester / Academic Year: Semester-based 2025-2026
Semester-based –Second Course
4. Date of Preparation of This Description: 15-8-2025
5. Available Attendance Modes
Weekly theory and practical
6. Total Study Hours (Total) / Total Units:
1 theory & 3 practical
Number of units: 2 units
7. Name of the Course Coordinator (mention if more than one)
Name: Asst. Lect. Ahmed Ibrahim

8. Course Objectives

Course Learning Objectives

Providing the student with an understanding of the basics of laser techniques and their therapeutic diagnostic uses in the treatment of various eye diseases.

9. Teaching and Learning Strategies

Strategy

Using modern teaching methods (electronic whiteboard and display screens)
Using discussion methods, daily examinations, homework, and reports, as well as
Stimulating questions, blending several teaching methods, and the skill mastery method.

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	1 theory & 3 practical	Comprehension and understanding	Lasers: Definition, characteristics .applications in eye	whiteboard and display screen	theoretical and practical examinations
2	1 theory & 3 practical	Comprehension and understanding	Advantage , disadvantage	whiteboard and display screen	homework and reports
3	1 theory & 3 practical	Comprehension and understanding	Types of Laser in medicine	whiteboard and display screen	theoretical and practical examinations
4	1 theory & 3 practical	Comprehension and understanding	Microplus laser	whiteboard and display screen	homework and reports

5	1 theory & 3 practical	Comprehension and understanding	Femtosecond laser	whiteboard and display screen	theoretical and practical examinations
6	1 theory & 3 practical	Comprehension and understanding	Laser Safety	whiteboard and display screen	homework and reports
7	1 theory & 3 practical	Comprehension and understanding	Laser tissue interaction	whiteboard and display screen	theoretical and practical examinations
8	1 theory & 3 practical	Comprehension and understanding	Laser tissue interaction	whiteboard and display screen	homework and reports
9	1 theory & practical	Comprehension and understanding	Laser in diagnostics (OCT)	whiteboard and display screen	theoretical and practical examinations
10	1 theory & practical	Comprehension and understanding	Confocal scanning laser ophthalmoscopy (CSLO)	whiteboard and display screen	homework and reports
11	1 theory & practical	Comprehension and understanding	Laser doppler flowmetry (LDF)	whiteboard and display screen	theoretical and practical examinations
12	1 theory & practical	Comprehension and understanding	Photo Refractive keratectomy (PRK)	whiteboard and display screen	homework and reports
13	1 theory & practical	Comprehension and understanding	Laser treatment for eyes (tissues and diseases)	whiteboard and display screen	theoretical and practical examinations
14	1 theory &	Comprehension and	Retinal Laser treatment	whiteboard and display	homework and reports

	practical	understanding		screen	
15	1 theory & practical	Comprehension and understanding	Revision	whiteboard and display screen	theoretical and practical examinations homework and reports

11. Course Assessment

Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.

12. Learning and Teaching Resources

Required prescribed textbooks (curriculum-based, if any)

Main References (Sources)

Manual of Ophthalmic Laser clinical ,

Supporting books and references recommended (scientific journals, reports, etc.)

Reference of the American Academy of Ophthalmology

Electronic references, websites

Course Description Form

13. Course Title: Pharmacology

14. Course Code :	
15. Semester / Academic Year: Semester-based 2025-2026	
Second Course	
16. Date of Preparation of This Description: 15-8-2025	
17. Available Attendance Modes	
Weekly in-person theory	
18. Total Study Hours (Total) / Total Units	
2 hours weekly × 15 weeks = (30 hours), two units	
19. Name of the Course Coordinator (mention if more than one)	
Name: Lect. Sajjad Zuhair	
20. Course Objectives	
Course Learning Objectives	Providing the student with an understanding of the mechanisms of action of general and ocular medication and their therapeutic and side effects, enabling him to deal safely with the medications used in visual practice
21. Teaching and Learning Strategies	
Strategy	Using modern teaching methods (electronic whiteboard and display screens) Using discussion methods, daily examinations, homework, and reports, as well as

Stimulating questions, blending several teaching methods, and the skill mastery method.

22. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
First	2 theory	Comprehension and understanding	Principles of Drug Therapy	whiteboard and display screen	theoretical and practical examinations homework and reports
Second	2 theory	Comprehension and understanding	Drugs Affecting the Autonomic Nervous System – I	whiteboard and display screen	theoretical and practical examinations homework and reports
Third	2 theory	Comprehension and understanding	Drugs Affecting the Autonomic Nervous System – II	whiteboard and display screen	theoretical and practical examinations homework and reports
Fourth	2 theory	Comprehension and understanding	Drugs Affecting the Central Nervous System	whiteboard and display screen	theoretical and practical examinations homework and reports
Fifth	2 theory	Comprehension and understanding	Drugs Affecting the Cardiovascular	whiteboard and display screen	theoretical and practical examinations homework and reports

		understanding	System – I	screen	examinations homework and report
Sixth	2 theory	Comprehension and understanding	Drugs Affecting the Endocrine System	whiteboard and display screen	theoretical and practical examinations homework and report
Seventh	2 theory	Comprehension and understanding	Chemotherapeutic Drugs – I	whiteboard and display screen	theoretical and practical examinations homework and report
Eighth	2 theory	Comprehension and understanding	Chemotherapeutic Drugs – II	whiteboard and display screen	theoretical and practical examinations homework and report
Ninth	2 theory	Comprehension and understanding	Anti-inflammatory, Antipyretic, and Analgesic Agents	whiteboard and display screen	theoretical and practical examinations homework and report
Tenth	2 theory	Comprehension and understanding	Gastrointestinal and Antiemetic Drugs	whiteboard and display screen	theoretical and practical examinations homework and report
Eleventh	2 theory	Comprehension and understanding	Drugs for Disorders of the Respiratory System	whiteboard and display screen	theoretical and practical examinations homework and report

Twelfth	2 theory	Comprehension and understanding	Anti-inflammatory, Antipyretic, and Analgesic Agents	whiteboard and display screen	theoretical and practical examinations homework and reports
Thirteenth	2 theory	Comprehension and understanding	Gastrointestinal and Antiemetic Drugs	whiteboard and display screen	theoretical and practical examinations
Fourteenth	2 theory	Comprehension and understanding	Drugs of Abuse	whiteboard and display screen	homework and reports
Fifteenth	2 theory	Comprehension and understanding	Principles of Drug Therapy	whiteboard and display screen	theoretical and practical examinations

15. Course Assessment

Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.

(40 annual coursework marks divided into 25 theory + 15 practical) (60 final examination marks divided into 35 theory + 25 practical).

16. Learning and Teaching Resources

Required prescribed textbooks (curriculum-based, if any)	
Main References (Sources)	Clinical Ocular Pharmacology
Supporting books and references recommended (scientific journals, reports, etc.)	

Electronic references, websites	Some international websites specialized in the field of biostatistics on Internet.
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Course Description Form

1. Course Title: Statistics 1&2
2. Course Code
3. Semester / Academic Year: Semester-based 1+2 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person theory

6. Total Study Hours (Total) / Total Units
(1 theory x 3 practical) weekly - 4 units

7. Name of the Course Coordinator (mention if more than one)

Name: Dr. Nadhim Ibrahim

8. Course Objectives

**Course Learning
Objectives**

Providing the student with the basic skills to collect, analyze, and interpret health and research data, and to employ statistical methods in optics studies and research.

9. Teaching and Learning Strategies

Strategy	• Brainstorming strategy • Modeling learning strategy • Group work or cooperative learning strategy • Discussion strategy • Project-based strategy • Problem-solving or problem-based learning strategy • Mastery learning strategy Blending different strategies
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10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	1 theory + 3 practice	Comprehension and understanding	Introduction , Objectives Of Statistics The Major Objectives Of Statistics, Classification Of Statistics, Stages Of Statistical Method in Scientific Research	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
2	1 theory + 3 practice	Comprehension and understanding	Introduction , Objectives Of Statistics The Major Objectives Of Statistics, Classification Of Statistics, Stages Of Statistical Method in Scientific Research	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
3	1 theory + 3 practice	Comprehension and understanding	Sources of Data collection	Brainstorming method	Oral and written examination

4	1 theory + 3 practice	Comprehension and understanding	Types of data: Introduction, constant data, variables Types of variables.	Problem-solving method	Oral and written examination
5	1 theory + 3 practice	Comprehension and understanding	Types of data: Introduction, constant data, variables Types of variables.	Lecture, then conducting experiments	Oral and written examination
6	1 theory + 3 practice	Comprehension and understanding	Types of data: Introduction, constant data, variables Types of variables.	Skill mastery	Oral and written examination
7	1 theory + 3 practice	Comprehension and understanding	Data display: Introduction, Display data numerically as Simple display or Raw data, Ordered Display or Array, Data display frequency table	Mind maps	Oral and written examination
8	1 theory + 3 practice	Comprehension and understanding	Data display: Introduction, Display data numerically as Simple display or Raw data, Ordered Display or Array, Data display frequency table	Blending different strategies	Oral and written examination
9	1 theory + 3 practice	Comprehension and understanding	Display data graphically	Similarity-and-difference method	Oral and written examination
10	1 theory + 3 practice	Comprehension and understanding	Measures of central tendency	Blending different strategies	Oral and written examination
11	1 theory + 3 practice	Comprehension and understanding	Measures of Dispersion	Blending different strategies	Oral and written examination
12	1 theory + 3 practice	Comprehension and understanding	Measures of Dispersion	Blending different strategies	Oral and written examination
13	1 theory + 3 practice	Comprehension and understanding	Measures of Skewness and Kurtosis	Blending different strategies	Oral and written examination
14	1 theory + 3 practice	Comprehension and understanding	Measures of Skewness and Kurtosis	Blending different strategies	Oral and written examination

15	1 theory + 3 practice	Comprehension and understanding	General Review	Blending different strategies	Oral and written examination
16	1 theory + 3 practice	Comprehension and understanding	Probabilities And Distributions	Blending different strategies	Oral and written examination
17	1 theory + 3 practice	Comprehension and understanding	Probabilities And Distributions	Blending different strategies	Oral and written examination
18	1 theory + 3 practice	Comprehension and understanding	Correlation and regression analysis	Blending different strategies	Oral and written examination
19	1 theory + 3 practice	Comprehension and understanding	Correlation and regression analysis	Blending different strategies	Oral and written examination
20	1 theory + 3 practice	Comprehension and understanding	Hypothesis Testing: Introduction. Definition of test , level of significance, degrees of freedom, Error type.	Blending different strategies	Oral and written examination
21	1 theory + 3 practice	Comprehension and understanding	Hypothesis Testing: Introduction. Definition of test , level of significance, degrees of freedom, Error type.	Blending different strategies	Oral and written examination
22	1 theory + 3 practice	Comprehension and understanding	Z-test and t-test	Blending different strategies	Oral and written examination
23	1 theory + 3 practice	Comprehension and understanding	Z-test and t-test	Blending different strategies	Oral and written examination
24	1 theory + 3 practice	Comprehension and understanding	Chi-square test	Blending different strategies	Oral and written examination
25	1 theory + 3 practice	Comprehension and understanding	Analysis of Variance (ANOVA)	Blending different strategies	Oral and written examination
26	1 theory + 3 practice	Comprehension and understanding	Analysis of Variance (ANOVA)	Blending different strategies	Oral and written examination

		understanding			
27	1 theory + 3 practice	Comprehension and understanding	.Questionnaire: Design and Analysis	Blending different strategies	Oral and written examination
28	1 theory + 3 practice	Comprehension and understanding	.Questionnaire: Design and Analysis	Blending different strategies	Oral and written examination
29	1 theory + 3 practice	Comprehension and understanding	Final Report, Introduction, Statistical Analysis, Discussion Results.	Blending different strategies	Oral and written examination
30	1 theory + 3 practice	Comprehension and understanding	Revision	Blending different strategies	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main References (Sources)	. Introductory Biostatistics for the Health Sciences (Michael R Chernick). 2. Introductory Statistics Using SPSS (Herschel Knapp). 3. .
Supporting books and references recommended (journals and research specific to immunology)	

Electronic references, websites	
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Course Description Form

1. Course Title: Refractive Errors 1+2
2. Course Code:
3. Semester / Academic Year: Semester-based 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2 hours theory) + (4 hours practical) weekly = (90 hours) - 4 units

7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Ayham Ali Mohammed

8. Course Objectives

Course Learning

Objectives

Providing the student with a deep understanding of the optical and physiological foundations of refractive errors, how to measure and diagnose them accurately, and how to describe the appropriate optical solutions for them.

9. Teaching and Learning Strategies

Strategy	• Brainstorming strategy • Modeling learning strategy • Group work or cooperative learning strategy • Discussion strategy • Project-based strategy • Problem-solving or problem-based learning strategy • Mastery learning strategy Blending different strategies
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10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2+5 Theory and practical	Comprehension and understanding	Light	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
2	2+5	Comprehension and understanding	Mirror & lens	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
3	2+5	Comprehension and understanding	Trial case	Brainstorming method	Oral and written examination

4	2+5	Comprehension and understanding	Emmetropia & Ammetropia	Problem-solving method	Oral and written examination
5	2+5	Comprehension and understanding	Visual acuity and Instrument of test	Lecture, then conducting experiments	Oral and written examination
6	2+5	Comprehension and understanding	Instrument of test	Skill mastery	Oral and written examination
7	2+5	Comprehension and understanding	V.A. in child	Mind maps	Oral and written examination
8	2+5	Comprehension and understanding	V.A. in adult	Blending different strategies	Oral and written examination
9	2+5	Comprehension and understanding	Retinoscope I	Similarity-and-difference method	Oral and written examination
10	2+5	Comprehension and understanding	Retinoscope 2	Blending different strategies	Oral and written examination
11	2+5	Comprehension and understanding	Refractive error	Blending different strategies	Oral and written examination
12	2+5	Comprehension and understanding	Myopia sign & symptoms	Mastery learning	Oral and written examination
13	2+5	Comprehension and understanding	Myopia correction	Blending different strategies	Oral and written examination
14	2+5	Comprehension and understanding	Hypermetropia sign & symptoms	Cooperative learning	Oral and written examination
15	2+5	Comprehension and understanding	Revision	Blending different strategies	Oral and written examination

16	2+5	Comprehension and understanding	Strabismus1	Blending different strategies	Oral and written examination
17	2+5	Comprehension and understanding	Strabismus2	Blending different strategies	Oral and written examination
18	2+5	Comprehension and understanding	Strabismus3	Blending different strategies	Oral and written examination
19	2+5	Comprehension and understanding	Definition of Low vision and types	Blending different strategies	Oral and written examination
20	2+5	Comprehension and understanding	Instrument and devices uses in low vision	Blending different strategies	Oral and written examination
21	2+5	Comprehension and understanding	Test of low vision (V.A for far and Near)	Blending different strategies	Oral and written examination
22	2+5	Comprehension and understanding	Visual field	Blending different strategies	Oral and written examination
23	2+5	Comprehension and understanding	Magnification	Blending different strategies	Oral and written examination
24	2+5	Comprehension and understanding	Color blindness	Blending different strategies	Oral and written examination
25	2+5	Comprehension and understanding	Color blindness	Blending different strategies	Oral and written examination
26	2+5	Comprehension and understanding	Writing prescription	Blending different strategies	Oral and written examination
27	2+5	Comprehension and understanding	Reading prescription	Blending different strategies	Oral and written examination

28	2+5	Comprehension and understanding	Transposition	Blending different strategies	Oral and written examination
29	2+5	Comprehension and understanding	Transposition	Blending different strategies	Oral and written examination
30	2+5	Comprehension and understanding	Revision	Blending different strategies	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main References (Sources)	Borish's Clinical Refraction . Clinical Optics (Andrew Elkington). Primary Care Optometry (Theodore Grosvenor). Clinical Procedures in Primary Eye Care (for the practical aspect). The American Academy of Ophthalmology (AAO) series.
Supporting books and references recommended (journals and research specific to parasites)	

Electronic references, websites	
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Course Description Form

1. Course Title: Physiology 1&2
2. Course Code /
3. Semester / Academic Year: Semester-based 2025-2026
4. Date of Preparation of This Description: 15-8-2025
5. Available Attendance Modes:
Weekly in-person theory and practical lectures

6. Total Study Hours (Total) / Total Units: 180 hours / 4 units	
(2x15 theory) + (4x15 practical) weekly, First Semester (90 hours) - 4 units	
(2x15 theory) + (4x15 practical) weekly, Second Semester (90 hours) - 4 units	
7. Name of the Course Coordinator (mention if more than one)	
Name: . Istabraq Haider Khyon	
Course Objectives: Providing the optics student with a comprehensive understanding of the physiological mechanisms of the eye and the visual system, and relating them to the clinical applications of vision examination and the diagnosis of vision disorders.	
Course Learning Objective	General Objectives: 1- Providing the optics student with a deep and comprehensive understanding of the physiological and biophysical mechanisms responsible for the process of vision and the various functions of the eye. 2- Relating physiological knowledge of the eye to the clinical applications of vision examination and the diagnosis of refractive errors and related diseases.
	Specific Objectives: 1- Understanding the anatomy and physiology of the parts of the eye: describing the precise functions of the cornea, lens, iris, and ciliary body in the refraction of light and the adjustment of focus. 2- Understanding the physiology of the retina and vision: analyzing the role of the photoreceptor cells (rods and cones) in transmitting neural impulses and converting light signals into nerve signals. 1- Studying the mechanism of accommodation and eye movement: explaining how the eye accommodates to view near and distant objects, and understanding the physiology of the extraocular muscles.

9. Teaching and Learning Strategies	
Strategy	● Brainstorming strategy ● Modeling learning strategy ● Group work or cooperative learning strategy ● Discussion strategy ● Project-based strategy ● Problem-solving or problem-based learning strategy ● Mastery learning strategy Blending different strategies

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practical	Comprehension and understanding	Visual acuity	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
2	2 theory + 4 practical	Comprehension and understanding	Visual acuity	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
3-	2 theory + 4 practical	Comprehension and understanding	Binocular vision	Brainstorming method	Oral and written examination
4	2 theory + 4 practical	Comprehension and understanding	Optics and refraction	Problem-solving method	Oral and written examination
5	2 theory + 4 practical	Comprehension and understanding	Optics and refraction	Problem-solving method	Oral and written examination
6	2 theory + 4 practical	Comprehension and understanding	stereopsis	Lecture, then conducting experiments	Oral and written examination
7	2 theory + 4 practical	Comprehension and understanding	Pupillary reflex	Skill mastery	Oral and written examination
8	2 theory + 4 practical	Comprehension and understanding	Muscle action, ocular movement	Mind maps	Oral and written examination

9-10	2 theory + 4 practical	Comprehension and understanding	Eye movements, types	Blending different strategies	Oral and written examination
11	2 theory + 4 practical	Comprehension and understanding	Cornea, sclera anatomy	Similarity-and-difference method	Oral and written examination
12-	2 theory + 4 practical	Comprehension and understanding	Corneal transparency	Blending different strategies	Oral and written examination
13	2 theory + 4 practical	Comprehension and understanding	Corneal wound healing & nutrition	Similarity-and-difference method	Oral and written examination
14	2 theory + 4 practical	Comprehension and understanding	Aqueous humor	Blending different strategies	Oral and written examination
15	2 theory + 4 practical	Comprehension and understanding	Aqueous humor & IOP	Problem-solving	Reports
16	2 theory + 4 practical	Comprehension and understanding	The lens	Problem-solving method	Oral and written examination
17	2 theory + 4 practical	Comprehension and understanding	Lens & accommodation	Blending different strategies	Oral and written examination
18	2 theory + 4 practical	Comprehension and understanding	Accommodation the mechanism of accommodation	Lecture, then conducting experiments	Oral and written examination
19	2 theory + 4 practical	Comprehension and understanding	Optics and refraction cont. Accommodation & retinal role	Blending different strategies	Oral and written examination
20	2 theory + 4 practical	Comprehension and understanding	Introduction the lacrimal system and tears	Mind maps	Oral and written examination

21	2 theory + 4 practical	Comprehension and understanding	The vitreous anatomy ,Ultra structure &biochemical aspects	Blending different strategies	Oral and written examination
22	2 theory + 4 practical	Comprehension and understanding	The vitreous cont. aging of vitreous support function for retina	Lecture, then conducting experiments	Oral and written examination
23	2 theory + 4 practical	Comprehension and understanding	retina histology &function retina	Mind maps	Oral and written examination
24	2 theory + 4 practical	Comprehension and understanding	Retina cont.central &peripheral retina ,fovea,parafovea &pit	Blending different strategies	Oral and written examination
25	2 theory + 4 practical	Comprehension and understanding	Retina cont rod&cone pathways and differences	Problem-solving method	Oral and written examination
26	2 theory + 4 practical	Comprehension and understanding	Color blindness clinical types genetics , Ishehara	Blending different strategies	Oral and written examination
27	2 theory + 4 practical	Comprehension and understanding	High visual center and light reflex	Mind maps	Oral and written examination
28	2 theory + 4 practical	Comprehension and understanding	Perimetry &visual field testing methods of testing visual field ,types of perimetry	Blending different strategies	Oral and written examination
29	2 theory + 4 practical	Comprehension and understanding	Perimetry &visual field testing methods of testing visual field ,types of perimetry	Mind maps	Oral and written examination
30	2 theory + 4 practical	Comprehension and understanding	revision	Problem-solving method	Reports

11. Course Assessment	
40 coursework marks divided (25 theory + 15 practical); 60 final	
12. Learning and Teaching Resources	
Main References (Sources)	Anatomy and Physiology of Eye1 Journal of Retinal and Eye Research.2 - Practical Manual for Medical Physiology d)3
Supporting books and references recommended	1-Elsevier journal 2-Nature journal
Electronic references, websites	Various books and scientific periodicals specialized in human medicine and physiology

Course Description Form

1. Course Title: Optical Instruments 1&2
2. Course Code
3. Semester / Academic Year: Semester-based 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2x15 theory) + (5x15 practical) weekly (105 hours) - 4 units

7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Tayba Zuhair

8. Course Objectives

**Course Learning
Objectives**

Providing students with the applied knowledge and skills to deal with basic and advanced optical instruments and tools, operating, calibrating, and maintaining them, and using them in the examination and diagnosis of eye diseases and in lens manufacturing.

9. Teaching and Learning Strategies

Strategy	• Brainstorming strategy • Modeling learning strategy • Group work or cooperative learning strategy • Discussion strategy • Project-based strategy • Problem-solving or problem-based learning strategy • Mastery learning strategy Blending different strategies
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10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practical	Comprehension and understanding	Introduction And General Information	Lecture method and presentation of images and short illustrative films via Display screens	Oral and written examination
2	2 theory + 4 practical	Comprehension and understanding	General Consideration For Maintenance Of Ophthalmic Instruments And Ophthalmic Instruments Decontamination	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
3	2 theory + 4	Comprehension and understanding	Ophthalmic Instruments	Brainstorming method	Oral and written examination

	practical	understanding	Decontamination: (Cleaning Disinfection, Inspection, Packaging, Sterilization, Transport)		
4	2 theory + 4 practical	Comprehension and understanding	Risk Of Transmission Of Infection In Devices Used In Clinic Tonometry, Diagnostic Contact Lenses, Contact Lenses	Problem-solving method	Oral and written examination
5	2 theory + 4 practical	Comprehension and understanding	Risk Of Transmission Of Infection In Devices Used In Clinic Tonometry, Diagnostic Contact Lenses, Contact Lenses	Lecture, then conducting experiments	Oral and written examination
6	2 theory + 4 practical	Comprehension and understanding	Test Charts And Trial Case And Fra	Skill mastery	Oral and written examination
7	2 theory + 4 practical	Comprehension and understanding	Test Charts And Trial Case And Fra	Mind maps	Oral and written examination
8	2 theory + 4 practical	Comprehension and understanding	Retinoscope	Blending different strategies	Oral and written examination
9	2 theory + 4 practical	Comprehension and understanding	Auto Refractometer	Similarity-and-difference me	Oral and written examination
10	2 theory + 4 practical	Comprehension and understanding	Auto Refractometer	Blending different strategies	Oral and written examination
11	2 theory + 4 practical	Comprehension and understanding	Tonometer Types, Contact And Non Contact	Blending different strategies	Oral and written examination
12	2 theory + 4 practical	Comprehension and understanding	Tonometer Types, Contact And Non Contact	Mastery learning	Oral and written examination
13	2 theory + 4	Comprehension and understanding	Tonometer Types, Contact And Non Contact	Blending different strategies	Oral and written examination

	practical				
14	2 theory + 4 practical	Comprehension and understanding	Lensometer	Cooperative learning	Oral and written examination
15	2 theory + 4 practical	Comprehension and understanding	revision	Blending different strategies	Oral and written examination
16	2 theory + 4 practical	Comprehension and understanding	revision	Blending different strategies	Oral and written examination
17	2 theory + 4 practical	Comprehension and understanding	Lensometer	Blending different strategies	Oral and written examination
18	2 theory + 4 practical	Comprehension and understanding	External Eye Photography	Blending different strategies	Oral and written examination
19	2 theory + 4 practical	Comprehension and understanding	Indirect Ophthalmoscope	Blending different strategies	Oral and written examination
20	2 theory + 4 practical	Comprehension and understanding	direct Ophthalmoscope	Blending different strategies	Oral and written examination
21	2 theory + 4 practical	Comprehension and understanding	Corneal Examination- Placido Dis	Blending different strategies	Oral and written examination
22	2 theory + 4 practical	Comprehension and understanding	Corneal Examination- Keratomete	Blending different strategies	Oral and written examination
23	2 theory + 4 practical	Comprehension and understanding	Corneal Examination- Keratomete	Blending different strategies	Oral and written examination
24	2 theory + 4 practical	Comprehension and understanding	Corneal Examination- VKG	Blending different strategies	Oral and written examination

25	2 theory + 4 practical	Comprehension and understanding	Corneal Examination- Specnlar Microscopy	Blending different strategies	Oral and written examination
26	2 theory + 4 practical	Comprehension and understanding	Corneal Examination- Aesthesiom	Blending different strategies	Oral and written examination
27	2 theory + 4 practical	Comprehension and understanding	Corneal Topographer	Blending different strategies	Oral and written examination
28	2 theory + 4 practical	Comprehension and understanding	Corneal Topographer	Blending different strategies	Oral and written examination
29	2 theory + 4 practical	Comprehension and understanding	Fundus camera	Blending different strategies	Oral and written examination
30	2 theory + 4 practical	Comprehension and understanding	Revision	Blending different strategies	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

1. British Journal of Ophthalmology. 2. JAMA Ophthalmology. 3. American Academy of Ophthalmology. 4. Cambridge Optical Instruments Series.

Main References (Sources)	
Supporting books and references recommended (journals and research specific to biochemistry)	
Electronic references, websites	Wikipedia Wikipedea.org.

Course Description Form

1. Course Title: Ocular Health 1&2
2. Course Code :
3. Semester / Academic Year: Semester-based 2025-2026
Semester-based
4. Date of Preparation of This Description: 15-8-2025
5. Available Attendance Modes:
Weekly in-person theory and practical lectures
6. Total Study Hours (Total) / Total Units: 180 hours / 4 units
(2x15 theory) + (4x15 practical) weekly (90 hours) - 4 units
(2x15 theory) + (4x15 practical) weekly (90 hours) - 4 units
7. Name of the Course Coordinator (mention if more than one)
Name: Asst. Lect. Wijdan Ehsan
8. Course Objectives

Course Learning Objective	Providing the optics student with the knowledge and skills necessary for the prevention of eye diseases, the early detection and diagnosis of pathological cases, and understanding how to manage them and refer them to specialized care.
9. Teaching and Learning Strategies	
Strategy	● Brainstorming strategy ● Modeling learning strategy ● Group work or cooperative learning strategy ● Discussion strategy ● Project-based strategy ● Problem-solving or problem-based learning strategy ● Mastery learning strategy Blending different strategies

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practical	Comprehension and understanding	Introduction: review of anatomy & physiology the eye	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
2	2 theory + 4 practical	Comprehension and understanding	Introduction : history & examination of the eye	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
3-4	2 theory + 4 practical	Comprehension and understanding	Introduction: certain ophthalmic terms.(terminology)	Brainstorming method	Oral and written examination
5	2 theory + 4 practical	Comprehension and understanding	- Primary eye care	Problem-solving method	Oral and written examination
6	2 theory + 4 practical	Comprehension and understanding	- Primary eye care	Lecture, then conducting experiments	Oral and written examination
8	2 theory + 4 practical	Comprehension and understanding	- Screening procedures in ophthalmology	Skill mastery	Oral and written examination
9	2 theory + 4 practical	Comprehension and understanding	- Screening procedures in ophthalmology	Mind maps	Oral and written examination
10-11	2 theory + 4 practical	Comprehension and understanding	School eye screening programs	Blending different strategies	Oral and written examination
	2 theory + 4 practical	Comprehension and understanding	Concept of community ophthalmology sticky eye, watery eye&	Similarity-and-difference me	Oral and written examination

12-13	2 theory + 4 practical	Comprehension and understanding	Concept of community ophthalmology flashes of light , floating object in visual field& Concept of community ophthalmology long term glaucoma monitoring	Blending different strategies	Oral and written examination
14-15	2 theory + 4 practical	Comprehension and understanding	The epidemiology of blindness (general principles)	Blending different strategies	Oral and written examination

Second Semester

1	2 theory + 4 practical	Comprehension and understanding	National program for control of blindness	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
2	2 theory + 4 practical	Comprehension and understanding	National program for control of blindness	Lecture method with presentation of illustrative images and short films via display screens Presentation	Oral and written examination
3	2 theory + 4 practical	Comprehension and understanding	Acute loss of vision , differential diagnosis	Brainstorming method	Oral and written examination
4	2 theory + 4 practical	Comprehension and understanding	Acute loss of vision , differential diagnosis	Problem-solving method	Oral and written examination
5	2 theory + 4 practical	Comprehension and understanding	Gradual loss of vision	Lecture, then conducting experiments	Oral and written examination

6	2 theory + 4 practical	Comprehension and understanding	Gradual loss of vision	Skill mastery	Oral and written examination
7	2 theory + 4 practical	Comprehension and understanding	Painful eye : differential diagnosis	Mind maps	Oral and written examination
8	2 theory + 4 practical	Comprehension and understanding	Painful eye : differential diagnosis	Blending different strategies	Oral and written examination
9	2 theory + 4 practical	Comprehension and understanding	Red eye : differential diagnosis	Similarity-and-difference me	Oral and written examination
10	2 theory + 4 practical	Comprehension and understanding	Red eye : differential diagnosis	Blending different strategies	Oral and written examination
11	2 theory + 4 practical	Comprehension and understanding	Information , education and communication	Blending different strategies	Oral and written examination
12	2 theory + 4 practical	Comprehension and understanding	Rehabilitation of visually handicapped	Mastery learning	Oral and written examination
13	2 theory + 4 practical	Comprehension and understanding	Rehabilitation of visually handicapped	Blending different strategies	Oral and written examination
14	2 theory + 4 practical	Comprehension and understanding	National program for control of blindness	Cooperative learning	Oral and written examination
15	2 theory + 4 practical	Comprehension and understanding	Revision	Blending different strategies	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

	Primary eye care books (Primary Care Ophthalmology)
Main References (Sources)	World Health Organization reports
Supporting books and references recommended	
Electronic references, websites	(WHO Eye Care)

Course Description:

1. Name / Course Code	Crimes of the Baath Regime in Iraq
5. Available Attendance Modes	Weekly
3. Semester / Academic Year	Semester-based 2025-2026
6. Total study hours	Two hours per week
4. Date of Preparation of This Description	15-8-2025
8. Course Objectives:	

Firstly - providing the student with all the scientific foundations to enhance his knowledge of the basics of the crimes of the defunct Baath Party by stating the most important crimes and violations committed by the defunct Baath regime against the Iraqi people.

Secondly - the student must know the most significant violations committed by the defunct Baath regime against rights and freedoms.

Thirdly - the student must understand the psychological and social context.

Fourthly - the student must know about culture and media and the nature of the militarization of Iraqi society during the defunct Baath regime.

Fifthly - the student must know the impact of repression and wars on the environment and the population.

Sixthly - the student must know the effects of the use of internationally prohibited weapons and environmental pollution

Seventhly - the student must know what the mass graves are and how places of worship were bombed in Iraq during the defunct Baath regime.

Eighthly - the student must know the scorched-earth policy.

Ninthly - the student must know how the defunct Baath regime destroyed the agricultural and animal environment and caused radioactive contamination.

9. Course learning outcomes and teaching, learning, and assessment methods :

- Cognitive Objectives

- A- Knowing the importance of the principles and rules of democracy and human rights.**
- 2- Knowing how the Baath regime committed crimes against humanity, the Iraqi community, and its opponents.**
- 3- Learning about the violations to which the Iraqi citizen and the foreign person in Iraq were exposed.**
- 4- Learning about the special summary courts that the defunct Baath regime used to form.**
- 5- Learning about how sentences were carried out in the time of the defunct Baath regime.**

B - Course-specific skills objectives.

- 1 - The skills necessary to know the crimes committed by the defunct Baath regime.**
- 2 - The skills necessary to know the procedures for applying transitional justice laws.**
- 3 - The skills necessary to know the special courts that were formed in the time of the defunct regime.**
- 4- The skills necessary to know the most important violations of rights and freedoms.**
- 5- The skills necessary to know the effect of the transitional phase in fighting authoritarian policy.**

Teaching and learning methods :

- 1. Employing the lecture method sequentially, starting with the basics and branching into details.**
- 2. Using the whiteboard according to the topic presented, with examples to reinforce the student's understanding.**
- 3. Discussing the most important points of the lecture in order to consolidate the information in the student's mind.**
- 4. Final assessment (questions, and sometimes the quick test (Quiz))**

Assessment methods :

(40) marks, distributed over written and oral examinations and research and reports completed by the student during the semester as follows:

(30) marks for the monthly examination

(10) marks for daily activity in lectures, daily preparation, surprise oral examinations, and a quiz exam

60 marks allocated to the final examination.

- Affective and Values Objectives :

- Knowing the problems in understanding the crimes of the defunct Baath Party.
- Participating with students by giving them realistic examples.
- Explaining practical examples of the Baath crimes, including judicial decisions and real facts.

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

- Assessing the student's general legal knowledge achievement.
- Field notes and indicators of qualitative and methodological development.

10. Course Structure:

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
Week First	2 theory hours	Week One: (General introductory topic on the study of the basic concepts of the crimes of the defunct Baath Party and violations of public	Week One: (General introductory topic on the study of the basic concepts of the crimes of the defunct Baath Party and violations of public rights and	Lecture / discussion / educational sessions via	Participation Tests

		rights and freedoms).	freedoms).	social media platforms	Examinations Oral Examinations Semester
Week Second	2 theory hours	Week Two: (A descriptive overview of the political systems in Iraq 1921-2003).	Week Two: (A descriptive overview of the political systems in Iraq 1921-2003).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester
Week Third	2 theory hours	Week Three: (Violations by the Baath regime of public rights and freedoms: violation of intellectual rights and violation of public freedoms).	Week Three: (Violations by the Baath regime of public rights and freedoms: violation of intellectual rights and violation of public freedoms).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester

Week Fourth	2 theory hours	Week Four: (Violation of the right to political pluralism).	Week Four: (Violation of the right to political pluralism).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester
Week Fifth	2 theory hours	Week Five: (Violations affecting social and political rights).	Week Five: (Violations affecting social and political rights).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester

Week Sixth	2 theory hours	Week Six: (Violation of cultural rights and freedoms and the most important violations practiced by the Baath regime).	Week Six: (Violation of cultural rights and freedoms and the most important violations practiced by the Baath regime).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester
Week Seventh	2 theory hours	Week Seven: (Violation of international law).	Week Seven: (Violation of international law).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester

Week Eighth	2 theory hours	Week Eight: (The effect of the Baath regime's behavior on society and its domination of the state).	Week Eight: (The effect of the Baath regime's behavior on society and its domination of the state).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester
Week Ninth	2 theory hours	Week Nine: (The concentration of the three powers in the hands of the Baath regime).	Week Nine: (The concentration of the three powers in the hands of the Baath regime).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester
Week Tenth	2 theory hours	Week Ten: (Party conditions for the monopolization of power).	Week Ten: (Party conditions for the monopolization of power).	Lecture / discussion / educational sessions via social media platforms	Participation, Tests, Examinations Oral Examinations Semester

Week Eleventh	2 theory hours	Week Eleven: (The effect of the transitional phase in fighting authoritarian policy).	Week Eleven: (The effect of the transitional phase in fighting authoritarian policy).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester
Week Twelfth	2 theory hours	Week Twelve: (The psychological field).	Week Twelve: (The psychological field).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester
Week Thirteenth	2 theory hours	Week Thirteen: (The social field).	Week Thirteen: (The social field).	Lecture / discussion / educational sessions via	Participation Tests

				social media platforms	Examinations Oral Examinations Semester
Week Fourteenth	2 theory hours	Week Fourteen: (The dialectic of the ruler and the citizen between hypocrisy and injustice, and the promotion of a culture of flattery).	Week Fourteen: (The dialectic of the ruler and the citizen between hypocrisy and injustice, and the promotion of a culture of flattery).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral Examinations Semester
Week Fifteenth	2 theory hours	Week Fifteen: (A comprehensive review of the violations of the Baath regime and its criminal behavior).	Week Fifteen: (A comprehensive review of the violations of the Baath regime and its criminal behavior).	Lecture / discussion / educational sessions via social media platforms	Participation Tests Examinations Oral

					Examinations Semester
			The final examinations according to the dates set by the Ministry of Higher Education and Scientific Research for the academic year 2023/2024		
- Completing research and study projects.					

13. Infrastructure:

1. Required prescribed textbooks	Curriculum 'Crimes of the Defunct Baath Party 2023' prepared by the Ministry of Higher Education and Scientific Research / Department of Studies, Planning and Follow-up
2. Main references (sources)	Curriculum 'Crimes of the Defunct Baath Party 2023' prepared by the Ministry of Higher Education and Scientific Research / Department of Studies, Planning and Follow-up

Books and references recommended (scientific journals, reports, etc.)	Al-Hikma Journal - Al-Muhaqqiq Al-Hilli Journal - Journal of Comparative Law
Electronic references, websites :	Available websites

14. Course development plan :

Adding and updating vocabulary and topics in line with developments in the course, at a rate not exceeding 10% each academic year .

Third Stage

Course Description Form

1. Course Title: Ocular Manifestations of Systemic Disorders 1&2- Third Stage

2. Course Code

3. Semester / Academic Year Semester-based – 2025-2026

4. Date of Preparation of This Description 15-8-2025

5. Available Attendance Modes

Weekly in-person theory and practical lectures

6. Total Study Hours (Total) / Total Units

150 theory/practical hours / 7 units

7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Mubarak Nafi

8. Course Objectives

Course Learning Objectives

The Ocular Problems course for the Optics Department aims to provide the student with comprehensive knowledge for diagnosing various eye diseases and disorders and differentiating between them and simple visual defects. It also seeks to link the theoretical side with clinical work to enable the graduate to perform primary examinations accurately and refer serious pathological cases to the ophthalmologist in a timely manner. In addition, the course focuses on the role of the optics specialist in the prevention and early detection of chronic diseases that threaten vision, in order to preserve the health and safety of the eye.

9. Teaching and Learning Strategies

Strategy

Using modern methods in teaching and learning, such as display devices and electronic whiteboards

Discussion approach - stimulating questions - mastery learning method, differentiated learning, mind maps

Similarity-and-difference method, inquiry method

10. Course Structure

1.	2 theory + 3 practical	Comprehension and understanding	Trauma to the eye , lids, foreign body	Stimulating questions	homework and reports Examinations and oral and written theoretical and practical examinations
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2.	2 theory + 3 practical	Comprehension and understanding	Chemical injuries	Discussion approach	y homework and reports Examinations and oral and written theoretical and practical examinations
3.	2 theory + 3 practical	Comprehension and understanding	.Diabetic eye disease	Display device	y homework and reports Examinations and oral and written theoretical and practical examinations
4.	2 theory + 3 practical	Comprehension and understanding	.Diabetic eye disease	Approach Discussion	y homework and reports Examinations and oral and written theoretical and practical examinations
5.	2 theory + 3 practical	Comprehension and understanding	hypertention	Approach Discussion	y homework and reports Examinations oral and written theoretical and practical examinations

6.	2 theory + 3 practical	Comprehension and understanding	Hypertensive eye disease	Devices Presentation	y homework and reports Examinations and oral and written theoretical and practical examinations
7.	2 theory + 3 practical	Comprehension and understanding	Ocular side effects of systemic medication	Devices Presentation	y homework and reports Examinations and oral and written theoretical and practical examinations
8.	2 theory + 3 practical	Comprehension and understanding	Thyroid eye disease ,Thyroid gland anatomy and physiology	Questions Stimulating	y homework and reports Examinations and oral and written theoretical and practical examinations
9.	2 theory + 3 practical	Comprehension and understanding	Ocular manifestations associated with thyroid gland	Approach Discussion	y homework and reports Examinations

			problems		and oral and written theoretical and practical examinations
10.	2 theory + 3 practical	Comprehension and understanding	Ocular manifestations associated with blood disorders ,sickle cell anemia ,thalassaemia, Blitiyscarasis &Tumor.	Devices Presentation	homework and reports Examinations and oral and written theoretical and practical examinations
11.	2 theory + 3 practical	Comprehension and understanding	Ocular manifestations accociated with blood disorders, retinal venous occlusive disease and retin arterial occlusive disease.	Devices Presentation	homework and reports Examinations and oral and written theoretical and practical examinations
12.	2 theory + 3 practical	Comprehension and understanding	Ocular manifestations associated v systemic infections , viral bacterial fungal and autoimmune diseases	Questions Stimulating	homework and reports Examinations and oral and written theoretical and practical examinations
13.	2 theory + 3 practical	Comprehension and understanding	Ocular manifestations in neurological disorder	Questions Stimulating	homework and reports Examinations

					and oral and written theoretical and practical examinations
14.	2 theory + 3 practical	Comprehension and understanding	Ocular manifestations in systemic neoplasia	Devices Presentation	y homework and reports Examinations and oral and written theoretical and practical examinations
15.	2 theory + 3 practical	Comprehension and understanding	revision	Approach Discussion	y homework and reports Examinations and oral and written theoretical and practical examinations
16.	2 theory + 3 practical	Comprehension and understanding	Brain lesion ,multiple sclerosis ,types of headach ,stroke	Display device	y homework and reports
17.	2 theory + 3 practical	Comprehension and understanding	Intracranial lesion ,heamatomata ,trauma to the head	Presentation	minations
18.	2 theory + 3 practical	Comprehension and understanding	Pathophysiology of cerebrovascular accident, transient ischemic attack	Devices	and written theoretical and practical examinations
19.	2 theory + 3 practical	Comprehension and understanding	Physiology of cerebrospinal fluid	Presentation	y homework and reports

20.	2 theory + 3 practical	Comprehension and understanding	rism, symptoms causes and treatment	Display device	homework and reports
21.	2 theory + 3 practical	Comprehension and understanding	Neurological infections, brain infections, meningitis, spinal cord infections, encephalitis and meningitis.	Display device	homework and reports
22.	2 theory + 3 practical	Comprehension and understanding	Neuroinfectious diseases, HIV, herpes zoster, herpes simplex	Display device	oral and written theoretical and practical demonstrations
23.	2 theory + 3 practical	Comprehension and understanding	Syphilis, toxoplasmosis, sarcoidosis, causes, symptoms and treatment	Display device	homework and reports
24.	2 theory + 3 practical	Comprehension and understanding	Demyelinating disorders	Display device	homework and reports
25.	2 theory + 3 practical	Comprehension and understanding	Demyelinating disorders	Display device	oral and written theoretical and practical demonstrations
26.	2 theory + 3 practical	Comprehension and understanding	.Hereditary disease	Display device	homework and reports
27.	2 theory + 3 practical	Comprehension and understanding	.Hereditary disease	Display device	homework and reports
28.	2 theory + 3 practical	Comprehension and understanding	Degenerative eye diseases	Display device	oral and written theoretical and practical demonstrations
29.	2 theory + 3 practical	Comprehension and understanding	Ophthalmoplegia, causes, symptom management and risk factors	Display device	homework and reports
30.	2 theory + 3 practical	Comprehension and understanding	Revision	Display device	homework and reports

		understanding			
11. Course Assessment: 5 daily marks + 35 monthly and mid-semester marks + 40 practical; final 60					
Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.					
12. Learning and Teaching Resources					
Required prescribed textbooks (curriculum-based, if any)			kaniski		
References (Sources)			The Wills Eye Manual		
Supporting books and references recommended (scientific journals, reports, etc.)					
Electronic references, websites					

Course Description Form

1. Course Title: Ophthalmic Optics 1&2
2. Course Code

3. Semester / Academic Year Semester-based 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2x30 theory) + (4x30 practical) weekly (180 hours) - 4 units

7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Haider Hussein

8. Course Objectives

**Course Learning
Objectives**

General Objectives: The Ophthalmic Optics course in the Optics Department aims to provide students with the theoretical knowledge and practical skills to select and design the appropriate lenses and frames to correct refractive errors. It also focuses on mastering skills of taking precise facial measurements and fitting lenses efficiently to ensure patient comfort and visual safety. In addition, course qualifies graduates to provide professional consultations suited to patients' daily visual needs according to the highest standards.

9. Teaching and Learning Strategies

Strategy	• Modeling learning strategy • Group work or cooperative learning strategy • Discussion strategy • Project-based strategy • Problem-solving or problem-based learning strategy • Mastery learning strategy Blending different strategies
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10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practice	Comprehension and understanding	Lenses, Types of Medical lenses with drawing.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
2	2 theory + 4 practice	Comprehension and understanding	How can write a prescription for patient	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
3	2 theory + 4 practice	Discussion	How can write a prescription for patient	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
4	2 theory + 4 practice	Comprehension and understanding	How can write a prescription for patient	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination

				display screens	
5	2 theory + 4 practice	Comprehension and understanding	Spectacles, Parts of Spectacles with drawings	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
6	2 theory + 4 practice	Comprehension and understanding	Spectacles frames. (Advantages).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
7	2 theory + 4 practice	Comprehension and understanding	Spectacles frames and measurements.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
8	2 theory + 4 practice	Comprehension and understanding	Frames of sports and measurements.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
9	2 theory + 4 practice	Comprehension and understanding	Stages of making glass lens (General Blocking and Polishing).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
10	2 theory + 4 practice	Comprehension and understanding	Centering the glass lens with the edge	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
11	2 theory + 4 practice	Comprehension and understanding	Coating, Coated requirements, Types	Discussion	Oral and written examination

		understanding	coating, Anti- Reflection coatings (A for (MC & HMC).		
12	2 theory + 4 practice	Comprehension and understanding	Coating, Coated requirements, Types coating, Anti- Reflection coatings (A for (MC & HMC).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
13	2 theory + 4 practice	Comprehension and understanding	Blue Cut lens, Multifocal, Ensues, Progressive.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
14	2 theory + 4 practice	Comprehension and understanding	Cementing lens for the different type lenses.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
15	2 theory + 4 practice	Comprehension and understanding	Revision	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
16	2 theory + 4 practice	Comprehension and understanding	Groups of materials for single (different size) and bifocal lenses (GM).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
17	2 theory + 4 practice	Comprehension and understanding	Groups of materials for single (different size) and bifocal lenses (GM).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
18	2 theory + 4 practice	Comprehension and understanding	Care of your glasses (Clearing Method)	Lecture method with presentation of illustrative	Oral and written examination

		understanding	and Storage).	images and short films via display screens	
19	2 theory + 4 practice	Comprehension and understanding	Taking care of eye glasses with maintenance.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
20	2 theory + 4 practice	Comprehension and understanding	Plano Lens (Advantages).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
21	2 theory + 4 practice	Comprehension and understanding	Knife lens	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
22	2 theory + 4 practice	Comprehension and understanding	CR-39 Lenses (Advantages and disadvantages).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
23	2 theory + 4 practice	Comprehension and understanding	Photo chromatic.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
24	2 theory + 4 practice	Comprehension and understanding	IPD (Inter pupil distance).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination

25	2 theory + 4 practical	Comprehension and understanding	Advantages of frames.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
26	2 theory + 4 practical	Comprehension and understanding	Decentration of lenses.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
27	2 theory + 4 practical	Comprehension and understanding	Boxing system of lens(bevel).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
28	2 theory + 4 practical	Comprehension and understanding	Plano Lens (Advantages).	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
29	2 theory + 4 practical	Comprehension and understanding	Back Vertex Distance .	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
30	2 theory + 4 practical	Comprehension and understanding	Revision.	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main References (Sources)	System for Ophthalmic Dispensing
Supporting books and references recommended (journals and research)	
Electronic references, websites	

Course Description Form

1. Course Title: Strabismus 1&2

2. Course Code

3. Semester / Academic Year: Semester-based 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2x30 theory) + (4x30 practical) weekly (180 hours) - 4 units

7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Ayham Ali Mohammed

8. Course Objectives

Course Learning Objectives	The Strabismus course in the Optics specialization aims to provide students with a precise understanding of the anatomy and physiology of the extraocular muscles and the neural control mechanisms of eye movement. It also focuses on training them to diagnose and evaluate various types of ocular deviations and disorders of double vision using advanced clinical tests. In addition, the course seeks to familiarize students with different treatment plans, such as visual exercises, therapeutic spectacles, or appropriate interventions..
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9. Teaching and Learning Strategies

Strategy	• Lecture delivery and slide presentation via display screens strategy • Group work or cooperative learning strategy • Discussion strategy • Project-based strategy • Problem-solving or problem-based learning strategy • Mastery learning strategy
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Blending different strategies

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practice	Comprehension and understanding	Anatomy and physiology of extraocular muscles	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
2	2 theory + 4 practice	Comprehension and understanding	Sensory physiology and pathology: the physiology of normal binocular vision suppression,	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
3	2 theory + 4 practice	Comprehension and understanding	Retinal correspondence (normal versus Anomalous), monofixation syndrome	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
4	2 theory + 4 practice	Comprehension and understanding	Binocular eye movement, Definition Simultaneous perception Fusional mechanism, Stereopsis	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
5	2 theory + 4 practice	Comprehension and understanding	Amblyopia-1: Definitions, Classification Detection and Screening Evaluation	Lecture method with presentation of illustrative images and short films via	Oral and written examination

				display screens	
6	2 theory + 4 practice	Comprehension and understanding	Amblyopia-2: Detailed treatment plan	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
7	2 theory + 4 practice	Comprehension and understanding	Management of. Refractive. Error in childhood	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
8	2 theory + 4 practice	Comprehension and understanding	Introduction to Strabismus: Definitions Types (Classifications) Terminology related to it	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
9	2 theory + 4 practice	Comprehension and understanding	Laws of Ocular Motility	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
10	2 theory + 4 practice	Comprehension and understanding	Esotropia-1: Definition, types, pseudoesotropia, congenital esotropia	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
11	2 theory + 4 practice	Comprehension and understanding	Esotropia-2: Accommodative esotropia	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
12	2 theory + 4 practice	Comprehension and understanding	Esotropia-3: Acquired non-	Lecture method with presentation of illustrative	Oral and written examination

		understanding	accommodative esotropia	images and short films via display screens	
13	2 theory + 4 practice	Comprehension and understanding	Esotropia-4: Incomitant esotropia types, focusing on Sixth Nerve P	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
14	2 theory + 4 practice	Comprehension and understanding	Esotropia-4: Incomitant esotropia types, focusing on Sixth Nerve P	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
15	2 theory + 4 practice	Comprehension and understanding	Review	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
16	2 theory + 4 practice	Comprehension and understanding	Corneal light reflex review	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
17	2 theory + 4 practice	Comprehension and understanding	Cover tests review	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
18	2 theory + 4 practice	Comprehension and understanding	Prisms in squint: structure and uses, PODT	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination

19	2 theory+2 practical	Comprehension and understanding	AC/A ratio examination	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
20	2 theory + 4 practical	Comprehension and understanding	Examination of patients with esotropia part-1	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
21	2 theory + 4 practical	Comprehension and understanding	Examination of patients with esotropia part-2	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
22	2 theory + 4 practical	Comprehension and understanding	Examination of patients with exotropia part-1	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
23	2 theory + 4 practical	Comprehension and understanding	Examination of patients with exotropia part-2	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
24	2 theory + 4 practical	Comprehension and understanding	Cycloplegic refraction: significance & horizontal deviation	Blending different strategies	Oral and written examination
25	2 theory + 4 practical	Comprehension and understanding	Synoptophore, its uses & its parts	Blending different strategies	Oral and written examination
26	2 theory + 4 practical	Comprehension and understanding	Objective angle measurement principle and application	Blending different strategies	Oral and written examination

27	2 theory + 4 practice	Comprehension and understanding	Subjective angle measurement principles and application	Blending different strategies	Oral and written examination
28	2 theory + 4 practice	Comprehension and understanding	Angle of anomaly	Blending different strategies	Oral and written examination
29	2 theory + 4 practice	Comprehension and understanding	Retinal correspondence: Normal, Anomalous Harmonious and Anomalous Unharmonious	Blending different strategies	Oral and written examination
30	2 theory + 4 practice	Skill mastery	Revision	Problem-solving method	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main References (Sources)	Clinical Orthoptics
Supporting books and references recommended (journals and research)	Clinical Management of Strabismus AAO Basic and Clinical Science Course (BCSC) - Section 6

Electronic references, websites	
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Course Description Form

1. Course Title: Refractive Errors 3&4
2. Course Code:

3. Semester / Academic Year:Semester-based 1&2 2025-2026	
4. Date of Preparation of This Description:15-8-2025	
5. Available Attendance Modes Weekly theory and practical	
6. Total Study Hours (Total) / Total Units: 180 hours - 4 units	
2 theory 4 practical	
7. Name of the Course Coordinator (mention if more than one)	
Asst. Lect. Ayham Ali Mohammed	
8. Course Objectives	
Course Learning Objecti	
Understanding optical theory: studying the optical properties of the eye and how the image is formed on the retina.	
Learning the types: comprehensive coverage of myopia, hyperopia, astigmatism, and presbyopia.	
Mastering examination skills: practical training on the use of refractometers and the ophthalmoscope	

to diagnose cases.

Developing the ability to communicate with patients and refer advanced pathological cases to the specialized ophthalmologist.

9. Learning Strategies

Strategy	Experiments, smart board, whiteboard, the Internet
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10. Course Structure:

Week		Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practical		Comprehension and understanding	Astigmatism definition&(sing-symptoms)	Theory/Practical	Examinations
2	2 theory + 4 practical		Comprehension and understanding	Astigmatism type &correction	Theory/Practical	Examinations
3	2 theory + 4 practical		Comprehension and understanding	Anisometropia	Theory/Practical	Examinations
4	2 theory + 4 practical		Comprehension and	Anisometropia	Theory/Practical	Examinations

		understanding			
5	2 theory + 4 practical	Comprehension and understanding	Aniseikonia& correction	Theory/Practical	Examinations
6	2 theory + 4 practical	Comprehension and understanding	Aphakia & pseudo Aphakia	Theory/Practical	Examinations
7	2 theory + 4 practical	Comprehension and understanding	presbyopia	Theory/Practical	Examinations
8	2 theory + 4 practical	Comprehension and understanding	Intra ocular lens	Theory/Practical	Examinations
9	2 theory + 4 practical	Comprehension and understanding	Eye strain	Theory/Practical	Examinations
10	2 theory + 4 practical	Comprehension and understanding	Amblyopia definition	Theory/Practical	Examinations
11	2 theory + 4 practical	Comprehension and understanding	Amblyopia definition	Theory/Practical	Examinations
12	2 theory + 4 practical	Comprehension and understanding	Visual acuity test for child	Theory/Practical	Examinations
13	2 theory + 4 practical	Comprehension and	Visual acuity test for child	Theory/Practical	Examinations

		understanding			
14	2 theory + 4 practical	Comprehension and understanding	Conductive Keratoplasty	Theory/Practical	Examinations
15	2 theory + 4 practical	Comprehension and understanding	Revision	Theory/Practical	Examinations
16	2 theory + 4 practical	Comprehension and understanding	accommodation	Theory/Practical	Examinations
17	2 theory + 4 practical	Comprehension and understanding	accommodation	Theory/Practical	Examinations
18	2 theory + 4 practical	Comprehension and understanding	Convergence of accommodation	Theory/Practical	Examinations
19	2 theory + 4 practical	Comprehension and understanding	Accommodation insufficiency	Theory/Practical	Examinations
20	2 theory + 4 practical	Comprehension and understanding	Paralysis of accommodation	Theory/Practical	Examinations
21	2 theory + 4 practical	Comprehension and understanding	Writing prescription	Theory/Practical	Examinations
22	2 theory + 4 practical	Comprehension and	transposition	Theory/Practical	Examinations

		understanding			
23	2 theory + 4 practical	Comprehension and understanding	Treatment of refractive errors	Theory/Practical	Examinations
24	2 theory + 4 practical	Comprehension and understanding	Treatment of refractive errors	Theory/Practical	Examinations
25	2 theory + 4 practical	Comprehension and understanding	Contrast sensitivity (instrument of low vision)	Theory/Practical	Examinations
26	2 theory + 4 practical	Comprehension and understanding	color blindness	Theory/Practical	Examinations
27	2 theory + 4 practical	Comprehension and understanding	color blindness	Theory/Practical	Examinations
28	2 theory + 4 practical	Comprehension and understanding	Color defecieny	Theory/Practical	Examinations
29	2 theory + 4 practical	Comprehension and understanding	Management of color blindness & treatment	Theory/Practical	Examinations
30	2 theory + 4 practical	Comprehension and understanding	revision	Theory/Practical	Examinations

11.Course Assessment

40 coursework - 60 final

12.Learning and Teaching Resources

1. Required prescribed textbooks	Illustrated Textbook of Optics and
2. Main references (sources)	Handbook of Visual Optics
Books and references recommended (scientific journals, reports, etc.)	
Electronic references, websites :	Wikipedia encyclopedia

Course Description Form

1. Course Title: Optical Instruments 3&4

2. Course Code/

3. Semester / Academic Year: Semester-based 1+2 2025-2026

4. Date of Preparation of This Description : 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

(2x30 theory) + (4x30 practical) weekly (180 hours) - 4 units

7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Tayba Zuhair

8. Course Objectives

Course Learning Objectives

The course covers understanding the optical theory of the eye and how the image is formed on the retina, with comprehensive coverage of the types of refractive errors such as myopia, hyperopia, and astigmatism. It focuses on mastering practical examination skills using refractometers and the ophthalmoscope to diagnose cases accurately, and aims to give the student the skill of determining the appropriate corrective lenses and developing the ability to communicate with patients and refer advanced cases to the ophthalmology specialist.

9. Teaching and Learning Strategies

Strategy

- Brainstorming strategy
 - Modeling learning strategy
 - Group work or cooperative learning strategy
 - Discussion strategy
 - Project-based strategy
 - Problem-solving or problem-based learning strategy
 - Mastery learning strategy
- Blending different strategies

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
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1	2 theory + 4 practice	Comprehension and understanding	Colour vision test: Ishihara, Hardy – Rand-Ritter	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
2	2 theory + 4 practice	Comprehension and understanding	Colour vision test: City University, Farnsworth-Munsell 100 Hue	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
3	2 theory + 4 practice	Comprehension and understanding	Contrast sensitivity, The Pelli-robson contrast sensitivity letter	Brainstorming method	Oral and written examination
4	2 theory + 4 practice	Comprehension and understanding	Amsler grid	Problem-solving method	Oral and written examination
5	2 theory + 4 practice	Comprehension and understanding	Dark adaptometry: definition, indication, Goldmann-weeks adaptometry.	Lecture, then conducting experiments	Oral and written examination
6	2 theory + 4 practice	Comprehension and understanding	Dark adaptometry: sensitivity curve, cone branch, rod branch break, rod branch.	Skill mastery	Oral and written examination
7	2 theory + 4 practice	Comprehension and understanding	Orthoptic examination instruments, haloscope, home devices	Examination	Oral and written examination
8	2 theory + 4 practice	Comprehension and understanding	Bagolini striated glasses	Blending different strategies	Oral and written examination
9	2 theory + 4 practice	Comprehension and understanding	Synaptophore	Similarity-and-difference method	Oral and written examination
10	2 theory + 4 practice	Comprehension and understanding	Synaptophore	Blending different strategies	Oral and written examination

11	2 theory + 4 practice	Comprehension and understanding	Maddox wing , Maddox rod	Blending different strategies	Oral and written examination
12	2 theory + 4 practice	Comprehension and understanding	Exophthalmometer	Examination	Oral and written examination
13	2 theory + 4 practice	Comprehension and understanding	Perimeter manual and automated	Blending different strategies	Oral and written examination
14	2 theory + 4 practice	Comprehension and understanding	Perimeter manual and automated	Cooperative learning	Oral and written examination
15	2 theory + 4 practice	Comprehension and understanding	Frequency doubling perimeter	Blending different strategies	Oral and written examination
16	2 theory + 4 practice	Comprehension and understanding	Diagnostic ultra sound	Blending different strategies	Oral and written examination
17	2 theory + 4 practice	Comprehension and understanding	Heidelberg retino-tomography (HRT)	Blending different strategies	Oral and written examination
18	2 theory + 4 practice	Comprehension and understanding	Optical carneal tomography (O.C.T)	Blending different strategies	Oral and written examination
19	2 theory + 4 practice	Comprehension and understanding	Heidelberg analmascope	Examination	Oral and written examination
20	2 theory + 4 practice	Comprehension and understanding	Pachometry	Blending different strategies	Oral and written examination
21	2 theory + 4 practice	Comprehension and understanding	Pachometry	Blending different strategies	Oral and written examination

22	2 theory + 4 practice	Comprehension and understanding	Dark adaptometer	Blending different strategies	Oral and written examination
23	2 theory + 4 practice	Comprehension and understanding	Electroretinography: principle the w the b-wave, normal ERG	Blending different strategies	Oral and written examination
24	2 theory + 4 practice	Comprehension and understanding	Electroretinography: scotopic ERG photo ERG	Blending different strategies	Oral and written examination
25	2 theory + 4 practice	Comprehension and understanding	Optical cataract tomog	Blending different strategies	Oral and written examination
26	2 theory + 4 practice	Comprehension and understanding	V.E.P	Examination	Oral and written examination
27	2 theory + 4 practice	Comprehension and understanding	YAG laser	Blending different strategies	Oral and written examination
28	2 theory + 4 practice	Comprehension and understanding	Argo Laser	Blending different strategies	Oral and written examination
29	2 theory + 4 practice	Comprehension and understanding	gonioscope	Blending different strategies	Oral and written examination
30	2 theory + 4 practice	Comprehension and understanding	Revision	Examination	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main References (Sources)	Clinical Procedures in Primary Eye care
Supporting books and references recommended (journals and research)	
Electronic references, websites	

Course Description Forms

1. Course Title : Computer Applications 1&2

2. Course Code:

3. Semester / Academic Year: Semester-based 1+2 2025-2026

4. Date of Preparation: 15-8-2025	
5. Available Attendance Modes : Weekly in-person lectures	
6. Total Credit Hours / Total Units	
Credit Hours 1 theory + 2 practical=2	
7. Instructor Name (mention if there is more than one name)	
Asst. Lect. Tamara	
8. Course Objectives	
The Computer course provides students with basic and advanced knowledge of information technology and the software and hardware components of the computer. It aims to develop skills in the effective use of office applications and digital systems in accomplishing various tasks, focuses on enhancing logical thinking and technical problem-solving, and, in addition, develops awareness of information security and the safe and responsible use of modern technology in the academic and professional environment.	
Teaching and Learning Strategies: Brainstorming strategy Modeling learning strategy	

Group work or cooperative learning strategy

Discussion strategy

Project-based strategy

Problem-solving or problem-based learning strategy

Story-based learning strategy.

Combining different strategies

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1.	1 theory & 2 practical	Comprehension and understanding	Introduction to Excel and its benefits	Daily discussion lectures and a quiz in every lecture session	examinations and quizzes and reports
2.	1 theory & 2 practical	Comprehension and understanding	Introduction to the main screen	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
3.	1 theory & 2 practical	Comprehension and understanding	The concept of the cell	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
4.	1 theory & 2 practical	Comprehension and	How to save a work file	Daily discussion lectures and a quiz in every lecture	Oral and written tests

		understanding		session	
5.	1 theory & 2 practical	Comprehension and understanding	Opening a saved file; entering data	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
6.	1 theory & 2 practical	Comprehension and understanding	Introduction to data collection methods	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
7.	1 theory & 2 practical	Comprehension and understanding	Using some functions ount , Sqrt ,	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
8.	1 theory & 2 practical	Comprehension and understanding	Cell editing process	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
9.	1 theory & 2 practical	Comprehension and understanding	Controlling cell display	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
10.	1 theory & 2 practical	Comprehension and understanding	Working with charts	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
11.	1 theory & 2 practical	Comprehension and understanding	Methods of creating charts	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
12.	1 theory & 2 practical	Comprehension and understanding	Modifying data	Daily discussion lectures and a quiz in every lecture session	Oral and written tests

13.	1 theory & 2 practical	Comprehension and understanding	Working with lists	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
14.	1 theory & 2 practical	Comprehension and understanding	List filtering process	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
15.	1 theory & 2 practical	Comprehension and understanding	How to add or delete rows	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
16.	1 theory & 2 practical	Comprehension and understanding	Statistical software	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
17.	1 theory & 2 practical	Comprehension and understanding	Components of the main screen	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
18.	1 theory & 2 practical	Comprehension and understanding	Sorting and rearranging data	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
19.	1 theory & 2 practical	Comprehension and understanding	Descriptive analysis	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
20.	1 theory & 2 practical	Comprehension and understanding	Comparing means	Daily discussion lectures and a quiz in every lecture session	Oral and written tests

21.	1 theory & 2 practical	Comprehension and understanding	Performing non-parametric tests	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
22.	1 theory & 2 practical	Comprehension and understanding	Quality control applications	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
23.	1 theory & 2 practical	Comprehension and understanding	Working with charts	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
24.	1 theory & 2 practical	Comprehension and understanding	Working with applications	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
25.	1 theory & 2 practical	Comprehension and understanding	Analysis of variance model	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
26.	1 theory & 2 practical	Comprehension and understanding	Power point	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
27.	1 theory & 2 practical	Comprehension and understanding	Building a presentation	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
28.	1 theory & 2 practical	Comprehension and understanding	How to add graphics	Daily discussion lectures and a quiz in every lecture session	Oral and written tests

29.	1 theory & 2 practical	Comprehension and understanding	Controlling slide background colors	Daily discussion lectures and a quiz in every lecture session	Oral and written tests
30.	1 theory & 2 practical	Comprehension and understanding	Access	Daily discussion lectures and a quiz in every lecture session	Oral and written tests

12. Learning and Teaching Resources	
Required textbooks (methodological books, if any)	
Main References (Sources)	1-
Recommended books and references (scientific journals, reports, etc.)	
Electronic references, websites	Google, Yahoo, Chrome

Course Description Form

1. Course Title: Laser Treatment of Eye Diseases - Third Stage

2. Course Code	
3. Semester / Academic Year: Semester-based 1+2 2025-2026	
4. Date of Preparation of This Description: 15-8-2025	
5. Available Attendance Modes: Mandatory attendance	
6. Total Study Hours (Total) / Total Units	
1 theory + 2 practical - 2 units	
7. Name of the Course Coordinator (mention if more than one)	
Name: Asst. Lect. Ahmed Ibrahim	
8. Course Objectives	
Course Learning Objectives	The Laser Treatment of Eye Diseases course covers the study of the physical and biological foundations of the nature of laser rays and how they interact with the various tissues of the eye. It aims to provide comprehensive coverage of clinical applications such as vision-correction operations and the treatment of glaucoma and retinal diseases, and focuses on mastering operation and safety skills and

	training on adjusting modern medical devices and occupational safety standards addition to developing the ability to evaluate cases to choose the appropriate treatment and follow up patient care after therapeutic interventions.
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9. Teaching and Learning Strategies

Strategy	Experiments, smart board, whiteboard, the Internet
	Using brainstorming, cooperative learning, skill mastery, and knowledge trips via the Internet

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10. Course Structure:

Week		Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	1 theory + 2 practical		Comprehension and understanding	Laser in medicine (Define , Properties, Advantage with Disadvantages, Types of laser)	Blending teaching methods	Examinations
2	1 theory + 2 practical		Comprehension and understanding	Laser in eye treatment (diseases in the eye, method of the treatment)	Blending teaching methods	Examinations
3	1 theory + 2 practical		Comprehension and understanding	Laser in eye treatment (diseases in the eye, method of the treatment)	Blending teaching methods	Examinations
4	1 theory + 2 practical		Comprehension and understanding	Co2 Laser (wave length = 10.6 nm)	Blending teaching methods	Examinations
5	1 theory + 2 practical		Comprehension and understanding	Co2 Laser (wave length = 10.6 nm)	Blending teaching methods	Examinations
6	1 theory + 2 practical		Comprehension and understanding	ND- YAG Laser	Blending teaching methods	Examinations
7	1 theory + 2 practical		Comprehension and understanding	Properties of Diode Laser	Blending teaching methods	Examinations
8	1 theory + 2 practical		Comprehension and understanding	Excimer Laser	Blending teaching methods	Examinations
9	1 theory + 2 practical		Comprehension and understanding	Laser effects on biological tissue,(thermal effect) (chemical ,Mechanical effects)	Blending teaching methods	Examinations

10	1 theory + 2 practical	Comprehension and understanding	Laser effects on biological tissue,(thermal effect) (chemical ,Mechanical effects)	Blending teaching methods	Examinations
11	1 theory + 2 practical	Comprehension and understanding	Side effects of Laser eye operation	Blending teaching methods	Examinations
12	1 theory + 2 practical	Comprehension and understanding	Retinal Laser treatment	Blending teaching methods	Examinations
13	1 theory + 2 practical	Comprehension and understanding	Argon Laser	Blending teaching methods	Examinations
14	1 theory + 2 practical	Comprehension and understanding	Argon Laser	Blending teaching methods	Examinations
15	1 theory + 2 practical	Comprehension and understanding	revision	Blending teaching methods	Examinations

11.Course Assessment

40 coursework - 60 final

12.Learning and Teaching Resources

1. Required prescribed textbooks	Prescribed curriculum books
2. Main references	Refractive Surgery Atlas

(sources)		
Books and references recommended (scientific journals, reports, etc.)	Scientific journals in the medical specialties	
Electronic references, websites :	Medlineplus.gov Healthline.com Pub med Web med	

Course Description Form

1. Course Title: Research Methodology

2. Course Code

3. Semester / Academic Year: Semester-based 2025- 2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person theory

6. Total Study Hours (Total) / Total Units

1 theory hour (30 hours) - two units

7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Mohammed Fawzi

8. Course Objectives: The student will be able to conduct research

Course Learning

Objectives

The student will be familiar with the types of studies, how to conduct them, and their objectives.

9. Teaching and Learning Strategies

Strategy	Scientific experiments, smart board, the Internet, Self-learning, skill mastery, problem-based learning Brainstorming method and combining different strategies and problem-solving methods
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0. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	one theory hour	Comprehension and understanding	Research; definitions, characteristics, and types	Blending different strategies	Daily (oral and written) tests and monthly examinations
2	one theory hour	Comprehension and understanding	Principles of research	Blending different strategies	Daily (oral and written) tests and monthly examinations
3	one theory hour	Comprehension and understanding	Scientific Methods	Blending different strategies	Daily (oral and written) tests and monthly examinations
4	one theory hour	Comprehension and understanding	Materials and Methods	Blending different strategies	Daily (oral and written) tests and monthly

					examinations
5	one theory hour	Comprehension and understanding	Methods of Data Collection	Blending different strategies	Daily (oral and written) tests and monthly examinations
6	one theory hour	Comprehension and understanding	Analytic studies	Blending different strategies	Daily (oral and written) tests and monthly examinations
7	one theory hour	Comprehension and understanding	Variables	Blending different strategies	Daily (oral and written) tests and monthly examinations
8	one theory hour	Comprehension and understanding	Classification of research	Blending different strategies	Daily (oral and written) tests and monthly examinations
9-10	one theory hour	Comprehension and understanding	Intervention studies(experimental	Blending different strategies	Daily (oral and written) tests and monthly examinations
11	one theory hour	Comprehension and understanding	Pilot study	Blending different strategies	Daily (oral and written) tests and monthly examinations

12	one theory hour	Comprehension and understanding	Cohort study	Blending different strategies	Daily (oral and written) tests and monthly examinations
13	one theory hour	Comprehension and understanding	Introduction and literature review	Blending different strategies	Daily (oral and written) tests and monthly examinations
14	one theory hour	Comprehension and understanding	Literature review in research project	Blending different strategies	Daily (oral and written) tests and monthly examinations
15	one theory hour	Comprehension and understanding	Research problem formation	Blending different strategies	Daily (oral and written) tests and monthly examinations

11. Course Assessment

30 coursework + 70 final

12. Learning and Teaching Resources

Main References (Sources)

Supporting books and references recommended	All books related to research management
Electronic references, websites	1- www.acs.org/content/acs/en/careers/college-to-career/chemistry-careers/lab-management.html www.asbmb.org/asbmbtoday/asbmbtoday_article.aspx?id=4897

Fourth Stage
Course Description Form

13. Course Title: Ocular Diseases 1&2

14. Course Code

15. Semester / Academic Year: Semester-based 2025- 2026

16. Date of Preparation of This Description: 15-8-2025

17. Available Attendance Modes: Weekly in-person, theory / practical

18. Total Study Hours (Total) / Total Units

2 theory hours (30 hours) + 2 practical hours - 3 units

19. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Mubarak Nafi

20. Course Objectives: Introducing the student to all eye diseases

**Course Learning
Objectives**

The Ocular Diseases course in the Optics Department aims to enable the student to understand precisely the pathological mechanisms of various eye disorders and the surrounding tissues. It also focuses on developing advanced clinical examination skills to detect visual and ocular problems at an early stage. The course also aspires to qualify students to distinguish between cases that are treated visually or medically and those that require immediate referral to eye surgery. In addition, it aims to enhance the ability to deal with ocular emergencies and acute eye injuries effectively. Finally, the course seeks to instill proper therapeutic planning skills to improve the quality of visual care for patients.

21. Teaching and Learning Strategies

Strategy	Scientific experiments, smart board, the Internet, Self-learning, skill mastery, problem-based learning Brainstorming method and combining different strategies and problem-solving methods
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2. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 practical + 2 theory	Comprehension and understanding	Diseases of the orbit (infection)	Blending different strategies	Daily (oral and written) tests and monthly examinations
2	2 practical + 2 theory	Comprehension and understanding	Diseases of the eye lids (infections, viral, bacterial, allergic)	Blending different strategies	Daily (oral and written) tests and monthly examinations
3	2 practical + 2 theory	Comprehension and understanding	Diseases of the eye lids (ptosis, ectropion & entropion)	Blending different strategies	Daily (oral and written) tests and monthly examinations
4	2 practical + 2 theory	Comprehension and understanding	lacrimal drainage diseases (causes & evaluation)	Blending different strategies	Daily (oral and written) tests and monthly examinations

5	2 practical + 2 theory	Comprehension and understanding	lacrimal drainage diseases (obstruction & infection)	Blending different strategies	Daily (oral and written) tests and monthly examinations
6	2 practical + 2 theory	Comprehension and understanding	Diseases of the conjunctiva (infections, viral, bacterial)	Blending different strategies	Daily (oral and written) tests and monthly examinations
7	2 practical + 2 theory	Comprehension and understanding	Diseases of the conjunctiva (infections, viral, bacterial)	Blending different strategies	Daily (oral and written) tests and monthly examinations
8	2 practical + 2 theory	Comprehension and understanding	Disorders of the cornea inflammation (infection & allergic)	Blending different strategies	Daily (oral and written) tests and monthly examinations
9	2 practical + 2 theory	Comprehension and understanding	Anomalies of the cornea (congenital) (micro cornea) megalo cornea, sclera cornea, keratoconus, anophthalmus.	Blending different strategies	Daily (oral and written) tests and monthly examinations
10	2 practical + 2 theory	Comprehension and understanding	Diseases of the crystalline lens abnormalities of (shape actopia)	Blending different strategies	Daily (oral and written) tests and monthly examinations
11	2 practical + 2 theory	Comprehension and understanding	Cataracts congenital	Blending different strategies	Daily (oral and written) tests and monthly examinations

12	2 practical + 2 theory	Comprehension and understanding	Cataract – acquired	Blending different strategies	Daily (oral and written) tests and monthly examinations
13	2 practical + 2 theory	Comprehension and understanding	Diseases of uveal tract (uveitis, infection, fungal, bacterial)	Blending different strategies	Daily (oral and written) tests and monthly examinations
14	2 practical + 2 theory	Comprehension and understanding	Anterior & posterior uveitis		
15	2 practical + 2 theory	Comprehension and understanding	Vitreous opacities (introduction, Vitreous hemorrhage), etc	Blending different strategies	Daily (oral and written) tests and monthly examinations
16	2 practical + 2 theory	Comprehension and understanding	Diseases retina – retinopathy (diabetic, hypertensive & retinopathy + of prematurity)	Blending different strategies	Daily (oral and written) tests and monthly examinations
17	2 practical + 2 theory	Comprehension and understanding	Diseases retina – retinopathy (diabetic, hypertensive & retinopathy + of prematurity)	Blending different strategies	Daily (oral and written) tests and monthly examinations
18	2 practical + 2 theory	Comprehension and understanding	Age related macular regeneration	Blending different strategies	Daily (oral and written) tests and monthly examinations

19	2 practical + 2 theory	Comprehension and understanding	Retinal detachment	Blending different strategies	Daily (oral and written) tests and monthly examinations
20	2 practical + 2 theory	Comprehension and understanding	Hereditary fundus dystrophies	Blending different strategies	Daily (oral and written) tests and monthly examinations
21	2 practical + 2 theory	Comprehension and understanding	Glaucoma (introduction & tonometries)	Blending different strategies	Daily (oral and written) tests and monthly examinations
22	2 practical + 2 theory	Comprehension and understanding	Types of Glaucoma (open angle, closed angle)	Blending different strategies	Daily (oral and written) tests and monthly examinations
23	2 practical + 2 theory	Comprehension and understanding	Primary congenital Glaucoma	Blending different strategies	Daily (oral and written) tests and monthly examinations
24	2 practical + 2 theory	Comprehension and understanding	Normal pressure Glaucoma	Blending different strategies	Daily (oral and written) tests and monthly examinations
25	2 practical + 2 theory	Comprehension and understanding	Pseudo exfoliation	Blending different strategies	Daily (oral and written) tests and monthly examinations
26	2 practical + 2 theory	Comprehension and understanding	Optic nerve	Blending different strategies	Daily (oral and written) tests and monthly examinations

27	2 practical + 2 theory	Comprehension and understanding	Optic nerve	Blending different strategies	Daily (oral and written) tests and monthly examinations
28	2 practical + 2 theory	Comprehension and understanding	Optic nerve	Blending different strategies	Daily (oral and written) tests and monthly examinations
29	2 practical + 2 theory	Comprehension and understanding	Ocular side effect of systemic medication (cornea, lens)	Blending different strategies	Daily (oral and written) tests and monthly examinations
30	2 practical + 2 theory	Comprehension and understanding	Ocular side effect of systemic medication (cornea, lens)	Blending different strategies	Daily (oral and written) tests and monthly examinations

23.Course Assessment

40 coursework + 60 final

24. Learning and Teaching Resources

Main References (Sources)	1-kaniski 2-wills manuall
Supporting books and references recommended	

Electronic references, website	Wikipedia.com
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Course Description Form

1. Course Title: Strabismus 3&4
2. Course Code
3. Semester / Academic Year: Semester-based 1+2 2025-2026
4. Date of Preparation of This Description: 15-8-2025
5. Available Attendance Modes: Weekly in-person, theory / practical
6. Total Study Hours (Total) / Total Units
2 hours theory + 4 practical weekly - 4 units
7. Name of the Course Coordinator (mention if more than one)

Name: Lect. Sajjad Zuhair

8. Course Objectives

Course Learning Objectives

The Strabismus course in the Optics specialization aims to enable the student to understand the anatomical and physiological foundations of eye movement and its neuromuscular coordination. It also focuses on studying the different types of manifest and latent strabismus, their causes, and methods of measuring them accurately using clinical tests. The course also aspires to give students the skills to assess the functions of binocular vision and stereopsis (Binocular vision). In addition, it aims to train students to develop treatment plans that include visual exercises, appropriate lenses, and referral of the case for surgery when necessary. Finally, the course seeks to enhance the ability to deal with cases of amblyopia associated with strabismus to improve vision.

9. Teaching and Learning Strategies

Strategy

Scientific experiments, smart board, the Internet,
Self-learning, skill mastery, problem-based learning
Brainstorming method and combining different strategies and problem-solving methods

10. Course Structure

Week		Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1.	2 theory + 4 practical		Comprehension and understanding	Synoptophore	Lecture method with presentation of illustrative images and short films via display screens	Daily (oral and written) tests and monthly examinations

2.	2 theory + 4 practical	Comprehension and understanding	Synoptophore	Lecture method with presentation of illustrative images and short films via display screens	Daily (oral and written) tests and monthly examinations
3.	2 theory + 4 practical	Comprehension and understanding	Synoptophore	Brainstorming method	Daily (oral and written) tests and monthly examinations
4.	2 theory + 4 practical	Comprehension and understanding	Heterophoria	Problem-solving method	Daily (oral and written) tests and monthly examinations
5.	2 theory + 4 practical	Comprehension and understanding	Heterophoria	Blending different strategies	Daily (oral and written) tests and monthly examinations
6.	2 theory + 4 practical	Comprehension and understanding	Heterophoria	Blending different strategies	Daily (oral and written) tests and monthly examinations
7.	2 theory + 4 practical	Comprehension and understanding	Orthoptic exercises	Blending different strategies	Daily (oral and written) tests and monthly examinations

8.	2 theory + 4 practical	Comprehension and understanding	Orthoptic exercises	Blending different strategies	Daily (oral and written) tests and monthly examinations
9.	2 theory + 4 practical	Comprehension and understanding	Orthoptic exercises	Blending different strategies	Daily (oral and written) tests and monthly examinations
10.	2 theory + 4 practical	Comprehension and understanding	Orthoptic exercises	Blending different strategies	Daily (oral and written) tests and monthly examinations
11.	2 theory + 4 practical	Comprehension and understanding	Diplopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
12.	2 theory + 4 practical	Comprehension and understanding	Diplopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
13.	2 theory + 4 practical	Comprehension and understanding	Diplopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
14.	2 theory + 4 practical	Comprehension and	Diplopia	Blending different	Daily (oral and written) tests and

		understanding		strategies	monthly examinations
15.	2 theory + 4 practical	Comprehension and understanding	Revision	Blending different strategies	Daily (oral and written) tests and monthly examinations
16.	2 theory + 4 practical	Comprehension and understanding	Vertical Heterotopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
17.	2 theory + 4 practical	Comprehension and understanding	Vertical Heterotopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
18.	2 theory + 4 practical	Comprehension and understanding	Vertical Heterotopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
19.	2 theory + 4 practical	Comprehension and understanding	Vertical Heterotopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
20.	2 theory + 4 practical	Comprehension and understanding	Vertical Heterotopia	Blending different strategies	Daily (oral and written) tests and monthly

					examinations
21.	2 theory + 4 practical	Comprehension and understanding	Special motility disorders	Blending different strategies	Daily (oral and written) tests and monthly examinations
22.	2 theory + 4 practical	Comprehension and understanding	Special motility disorders	Blending different strategies	Daily (oral and written) tests and monthly examinations
23.	2 theory + 4 practical	Comprehension and understanding	Special motility disorders	Blending different strategies	Daily (oral and written) tests and monthly examinations
24.	2 theory + 4 practical	Comprehension and understanding	Exophthalmos and dystopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
25.	2 theory + 4 practical	Comprehension and understanding	Exophthalmos and dystopia	Blending different strategies	Daily (oral and written) tests and monthly examinations
26.	2 theory + 4 practical	Comprehension and understanding	Torticollis	Blending different strategies	Daily (oral and written) tests and monthly examinations

27.	2 theory + 4 practical	Comprehension and understanding	Nystagmus	Blending different strategies	Daily (oral and written) tests and monthly examinations
28.	2 theory + 4 practical	Comprehension and understanding	Nystagmus	Blending different strategies	Daily (oral and written) tests and monthly examinations
29.	2 theory + 4 practical	Comprehension and understanding	Nystagmus	Blending different strategies	Daily (oral and written) tests and monthly examinations
30.	2 theory + 4 practical	Comprehension and understanding	Review	Blending different strategies	Daily (oral and written) tests and monthly examinations

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.

(40 annual coursework marks divided into 25 theory + 15 practical) (60 final examination marks divided into 35 theory + 25 practical).

12. Learning and Teaching Resources

Main References (Sources)

Kaniski

	Wills American academy of ophthalmology
Supporting books and references recommended (journals and research)	
Electronic references, websites	

Course Description Form

1. Course Title: Professional Ethics

2. Course Code

3. Semester / Academic Year: Semester-based 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical
Second Course

6. Total Study Hours (Total) / Total Units
1 theory hour (15 hours) - two units

7. Name of the Course Coordinator (mention if more than one)
Asst. Lect. Mohammed Fawzi

8. Course Objectives: Introducing students to professional ethics and providing them with professional ethical rules that reinforce their commitment in their expected field of work after graduation.

**Course Learning
Objectives**

- **General Objectives: Understanding and comprehending the concepts of Professional Ethics.....**
- **Consolidating and understanding the standards of professional ethics.....**
- **.Behavioral objectives: the student's ability to deal with ethics when dealing with patients**

9. Teaching and Learning Strategies

Strategy	Scientific experiments, smart board, the Internet, Self-learning, skill mastery, problem-based learning and combining different strategies and problem-solving methods
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0. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1+2	one theory hour	Comprehension and understanding	Ethics: its concept, general rules, sources, and importance for the individual and society	Blending different strategies	Daily (oral and written) tests and monthly examinations
3	one theory hour	Comprehension and understanding	Work and profession	Blending different strategies	Daily (oral and written) tests and monthly examinations
4	one theory hour	Comprehension and understanding	– Values Professional Ethics	Blending different strategies	Daily (oral and written) tests and monthly examinations
5+6	one theory hour	Comprehension and understanding	Values Professional Ethics	Blending different strategies	Daily (oral and written) tests and monthly

					examinations
7+8	one theory hour	Comprehension and understanding	Patterns of unethical behavior in the profession	Blending different strategies	Daily (oral and written) tests and monthly examinations
9+10	one theory hour	Comprehension and understanding	Means and methods of consolidating professional ethics values	Blending different strategies	Daily (oral and written) tests and monthly examinations
11+12	one theory hour	Comprehension and understanding	Characteristics and duties of the medical technician • Qualities that the medical technician must possess. • Duties of the medical technician toward his profession. • Duties of the medical technician toward the patient. Duties of the medical technician toward society	Blending different strategies	Daily (oral and written) tests and monthly examinations
13	one theory hour	Comprehension and understanding	The medical technician's relationship with society and his responsibility toward the environment and	Blending different strategies	Daily (oral and written) tests and monthly examinations

			public safety		
14	one theory hour	Comprehension and understanding	Professional relations: the medical technician's relationship with his colleagues in the health institution	Blending different strategies	Daily (oral and written) tests and monthly examinations
15	one theory hour	Comprehension and understanding	Ethics of teaching and learning on patients	Blending different strategies	Daily (oral and written) tests and monthly examinations

11. Course Assessment

40 coursework + 60 final

12. Learning and Teaching Resources

Main References (Sources)	1- Professional Ethics for Medical Specialties 2- Lessons in Professional Ethics, Dr. Mohammed Al-Sidd 3- Laboratory Safety, University of Washington
Supporting books and references recommended (journals and	All books related to medical professional ethics

research)	
Electronic references, websites	www.noor-book.com www.isbniroq.org

Course Description Form

1. Course Title: Spectacles and Contact Lenses 1&2 - Fourth Stage
2. Course Code
3. Semester / Academic YearSemester-based 2025-2026
4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical	
6. Total Study Hours (Total) / Total Units	
2 theory 4 practical 4	
7. Name of the Course Coordinator (mention if more than one)	
Name: Asst. Lect. Haider Hussein	
8. Course Objectives	
Course Learning Objectives	The Spectacles and Contact Lenses course in the Optics specialization aims to enable the student to understand the physical optical properties of the various types of lenses used in correcting refractive errors. It also focuses on giving students the practical skills to select, measure, and prescribe spectacle frames and lenses accurately according to the patient's visual need. The course also aspires to train students on the techniques of examining, fitting, and evaluating contact lenses (rigid and soft) in a safe manner. In addition, it aims to raise awareness of hygiene and infection-control standards to prevent complications of contact lens use. Finally, the course seeks to develop the student's ability to provide effective consultations for patients to ensure comfort and maximum quality of vision.
9. Teaching and Learning Strategies	
Strategy	Scientific experiments, smart board, the Internet, Self-learning, skill mastery, problem-based learning
10. Course Structure	

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10. Course Structure:

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	2 theory + 4 practical	Comprehension and understanding	Spectacle , parts of spectacle	Lecture method with presentation of illustrative images and short films via display screens	Daily (oral and written) tests and monthly examinations
2	2 theory + 4 practical	Comprehension and understanding	Spectacle , parts of spectacle	Lecture method with presentation of illustrative images and short films via display screens	Daily (oral and written) tests and monthly examinations
3	2 theory + 4 practical	Comprehension and understanding	How to maintain eyeglasses	Theory/Practical	Examinations
4	2 theory + 4 practical	Comprehension and understanding	back vertex power	Theory/Practical	Examinations
5	2 theory + 4 practical	Comprehension and understanding	Decentration	Theory/Practical	Examinations
6	2 theory + 4 practical	Comprehension and	Lenticular lenses	Theory/Practical	Examinations

		understanding			
7	2 theory + 4 practical	Comprehension and understanding	Biofocal glasses	Theory/Practical	Examinations
8	2 theory + 4 practical	Comprehension and understanding	Progressive glasses	Theory/Practical	Examinations
9	2 theory + 4 practical	Comprehension and understanding	Auto reflection coating for different materials method of lens tinting	Theory/Practical	Examinations
10	2 theory + 4 practical	Comprehension and understanding	Prism lens	Theory/Practical	Examinations
11	2 theory + 4 practical	Comprehension and understanding	Image jump	Theory/Practical	Examinations
12	2 theory + 4 practical	Comprehension and understanding	Variation in the size of the retinal image	Theory/Practical	Examinations
13	2 theory + 4 practical	Comprehension and understanding	Spectacle , parts of spectacle	Theory/Practical	Examinations
14	2 theory + 4 practical	Comprehension and understanding	Spectacle , parts of spectacle	Theory/Practical	Examinations

15	2 theory + 4 practical	Comprehension and understanding	Revision	Theory/Practical	Examinations
16	2 theory + 4 practical	Comprehension and understanding	Sport spectacles with prescription	Theory/Practical	Examinations
17	2 theory + 4 practical	Comprehension and understanding	Glossary of terms contact lens	Theory/Practical	Examinations
18	2 theory + 4 practical	Comprehension and understanding	Type of contact lens	Theory/Practical	Examinations
19	2 theory + 4 practical	Comprehension and understanding	Type of contact lens	Theory/Practical	Examinations
20	2 theory + 4 practical	Comprehension and understanding	Principles of test with measurements of CL	Theory/Practical	Examinations
21	2 theory + 4 practical	Comprehension and understanding	Fitting , maintenance , stages for CL	Theory/Practical	Examinations
22	2 theory + 4 practical	Comprehension and understanding	Care of contact lens	Theory/Practical	Examinations
23	2 theory + 4 practical	Comprehension and understanding	Soft contact lenses	Theory/Practical	Examinations

24	2 theory + 4 practical	Comprehension and understanding	Disadvantages and design dimension of soft contact lens (cosmetic CL)	Theory/Practical	Examinations
25	2 theory + 4 practical	Comprehension and understanding	Follow up post fitting examination	Theory/Practical	Examinations
26	2 theory + 4 practical	Comprehension and understanding	Prescription of hard contact lenses and spectacles	Theory/Practical	Examinations
27	2 theory + 4 practical	Comprehension and understanding	Risk , complication and oedema for different contact lenses	Theory/Practical	Examinations
28-30	2 theory + 4 practical	Comprehension and understanding	Risk , complication and oedema for different contact lenses	Theory/Practical	Examinations

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main references (the Internet)	Ophthalmic Lenses and Dispensing
Supporting books and references recommended (journals and research)	Andrew R. Elkington

Electronic references, websites	
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Course Description Form

1. Course Title: Ocular Prosthetics 1&2

2. Course Code

3. Semester / Academic Year: Semester-based 1+2 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes
Weekly in-person theory and practical

6. Total Study Hours (Total) / Total Units
Total Hours: 180 hours (Theory + Practical) / Total Units: 8

7. Name of the Course Coordinator (mention if more than one)
Name: Asst. Lect. Ayham Ali

8. Course Objectives

Course Learning Objectives

The Ocular Prosthetics course aims to provide the student with comprehensive knowledge of the types of cosmetic and therapeutic prosthetic devices and the indications for their use. It also focuses on studying the pathological and surgical cases that necessitate the removal or replacement of the eye, such as tumors and severe injuries. The course includes practical training on the techniques of taking measurements and selecting colors and shapes matching the healthy eye. In addition, it aims to introduce students to methods of care, maintenance, and prevention of infection associated with prosthetic devices. Finally, it seeks to develop communication skills to provide the psychological support and guidance necessary to help patients adapt and integrate.

9. Teaching and Learning Strategies

Strategy

Using modern teaching methods (electronic whiteboard and display screens)

Using discussion methods, daily examinations, homework, and reports, as well as

Stimulating questions.

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
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1	2 theory + 4 practical	Comprehension and understanding	Anatomy of the eye	lecture + practical	Daily + monthly examination
2	2 theory + 4 practical	Comprehension and understanding	Introduction to the ocular prosthesis	lecture + practical	Daily + monthly examination
3	2 theory + 4 practical	Comprehension and understanding	types of ocular prosthesis(advantage and disadvantage)	lecture + practical	Daily + monthly examination

4	2 theory + 4 practical	Comprehension and understanding	Causes of the eye damage and damage	lecture + practical	Daily + monthly examination
5	2 theory + 4 practical	Comprehension and understanding	Types of eye damage	lecture + practical	Daily + monthly examination
6&7	2 theory + 4 practical	Comprehension and understanding	Materials used for ocular and orbital prosthesis & Instruments and devices used for ocular prosthesis	lecture + practical	Daily + monthly examination
8	2 theory + 4 practical	Comprehension and understanding	Patient assessment for ocular prosthesis and orbital prosthesis.	lecture + practical	Daily + monthly examination
9	2 theory + 4 practical	Comprehension and understanding	Impression Of the eye defect	lecture + practical	Daily + monthly examination

10	2 theory + 4 practical	Comprehension and understanding	Impression Of the eye defect	lecture + practical	Daily + monthly examination
11	2 theory + 4 practical	Comprehension and understanding	Types of wax pattern ocular prosthesis	lecture + practical	Daily + monthly examination
12&13	2 theory + 4 practical	Comprehension and understanding	Wax pattern the ocular defect.Wax pattern the facial defec	lecture + practical	Daily + monthly examination
14	2 theory + 4 practical	Comprehension and understanding	Try in an anterior and posterior wax pattern on the patient and make the modification.	lecture + practical	Daily + monthly examination
15	2 theory + 4 practical	Comprehension and understanding	How to make the artificial eye's patient from the pattern.	lecture + practical	Daily + monthly examination
16	2 theory + 4 practical	Comprehension and understanding	How to make the iris and types of colors used for making ocular prosthesis	lecture + practical	Daily + monthly examination
17	2 theory + 4 practical	Comprehension and understanding	Types of acrylics used for making ocular prosthesis	lecture + practical	Daily + monthly examination
18	2 theory + 4 practical	Comprehension and understanding	Trying eye prosthesis by insertion and removal	lecture + practical	Daily + monthly examination
19	2 theory + 4 practical	Comprehension and understanding	Complete finished eye prosthesis	lecture + practical	Daily + monthly examination
20	2 theory + 4 practical	Comprehension and understanding	Types of silicon material used in the facial and orbital – prosthesis	lecture + practical	Daily + monthly examination

21	2 theory + 4 practical	Comprehension and understanding	Coloring the silicon material used in orbital prosthesis	lecture + practical	Daily + monthly examination
22	2 theory + 4 practical	Comprehension and understanding	Curing the silicon material inside the mold of the flask	lecture + practical	Daily + monthly examination
23	2 theory + 4 practical	Comprehension and understanding	How is the prosthetic eye placed inside the patient's socket and removed?	lecture + practical	Daily + monthly examination
24	2 theory + 4 practical	Comprehension and understanding	Tips for maintaining an ocular prosthesis	lecture + practical	Daily + monthly examination
25	2 theory + 4 practical	Comprehension and understanding	Implant for a maxillofacial prosthesis (bar and clip, magnetic implant to fix ocular prosthesis, orbital prosthesis	lecture + practical	Daily + monthly examination
26	2 theory + 4 practical	Comprehension and understanding	Facial prosthesis	lecture + practical	Daily + monthly examination
27	2 theory + 4 practical	Comprehension and understanding	How to construct the combination ocular prosthesis, how to reline the ocular prosthesis, relining the ocular cavity	lecture + practical	Daily + monthly examination
28	2 theory + 4 practical	Comprehension and understanding	Placement of the readymade eyelash and eyebrow on the eye prosthesis	lecture + practical	Daily + monthly examination

29	2 theory + 4 practical	Comprehension and understanding	Curing the silicon material inside the mold of the flask was a pattern	lecture + practical	Daily + monthly examination
30	2 theory + 4 practical	Comprehension and understanding	The development Of ocular prostheses nowadays	lecture + practical	Daily + monthly examination

11. Course Assessment

Distribution of the 100 marks according to the tasks assigned to the student, such as daily preparation, and daily, oral, monthly, and written examinations, and reports, etc.

(40 annual coursework marks divided into 25 theory + 15 practical) (60 final examination marks divided into 35 theory + 25 practical).

12. Learning and Teaching Resources

Main References (Sources)	"Ocular Prosthesis and Rehabilitation
Supporting books and references recommended (scientific journals, reports, etc.)	Clinical Ocular Prosthetics
Electronic references, websites	

Course Description Form

1. Course Title: Workshop - First and Second Semesters - Fourth Stage

2. Course CodeML 405	
3. Semester / Academic Year: Semester-based 2025-2026	
4. Date of Preparation of This Description:15-8-2025	
5. Available Attendance Modes: Mandatory attendance	
Weekly in-person theory and practical	
6. Total Study Hours (Total) / Total Units	
4 practical	
7. Name of the Course Coordinator (mention if more than one)	
Name: Asst. Lect. Haider Hussein	
8. Course Objectives	
Course Learning Objecti	The Workshop course aims to give the student the essential manual and practical skills for dealing with the tools and equipment of optical spectacle manufacturing and preparation with precision. It also focuses on field training in cutting, fitting, and fixing ophthalmic lenses into the various frames and repairing their common faults. The course includes teaching students how to use and test laboratory devices according to the highest approved professional standards. In addition, it aims to instill the rules of occupational health and safety in workshops and laboratories to prevent injuries. Finally, it seeks to qualify the student for the

	labor market by simulating the real work environment in optics centers and workshops.
9. Teaching and Learning Strategies	
Strategy	Experiments, smart board, whiteboard, the Internet

10. Course Structure:						
Week		Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	4 practical		Comprehension and understanding	Introduction	Theory/Practical	Examinations
2	4 practical		Comprehension and understanding	Types of lenses	Theory/Practical	Examinations
3	4 practical		Comprehension and understanding	IPD measurement	Theory/Practical	Examinations
4	4 practical		Comprehension and understanding	IPD measurement	Theory/Practical	Examinations
5	4 practical		Comprehension and understanding	How to draw pattern of different types of frames	Theory/Practical	Examinations

6	4 practical	Comprehension and understanding	How to draw pattern of different types of frames	Theory/Practical	Examinations
7	4 practical	Comprehension and understanding	How to draw pattern of different types of frames	Theory/Practical	Examinations
8	4 practical	Comprehension and understanding	Determined the centre of cylinder lens & axis	Theory/Practical	Examinations
9	4 practical	Comprehension and understanding	Determined the centre of cylinder lens & axis	Theory/Practical	Examinations
10	4 practical	Comprehension and understanding	Determined the centre of cylinder lens & axis	Theory/Practical	Examinations
11	4 practical	Comprehension and understanding	Transposition	Theory/Practical	Examinations
12	4 practical	Comprehension and understanding	Cutting lenses	Theory/Practical	Examinations
13	4 practical	Comprehension and understanding	Cutting lenses	Theory/Practical	Examinations
14	4 practical	Comprehension and understanding	Cutting lenses	Theory/Practical	Examinations

15	4 practical	Comprehension and understanding	Cutting lenses	Theory/Practical	Examinations
16	4 practical	Comprehension and understanding	Trimming the borders of lenses	Theory/Practical	Examinations
17	4 practical	Comprehension and understanding	Trimming the borders of lenses	Theory/Practical	Examinations
18	4 practical	Comprehension and understanding	Trimming the borders of lenses	Theory/Practical	Examinations
19	4 practical	Comprehension and understanding	Trimming the borders of lenses	Theory/Practical	Examinations
20	4 practical	Comprehension and understanding	Fitting the lenses in the frame	Theory/Practical	Examinations
21	4 practical	Comprehension and understanding	Fitting the lenses in the frame	Theory/Practical	Examinations
22	4 practical	Comprehension and understanding	Checking the spectacles	Theory/Practical	Examinations
23	4 practical	Comprehension and understanding	Checking the spectacles	Theory/Practical	Examinations

24	4 practical	Comprehension and understanding	Training to making different types of spectacles	Theory/Practical	Examinations
25-29	4 practical	Comprehension and understanding	Training to making different types of spectacles	Theory/Practical	Examinations

11.Course Assessment

40 coursework - 60 final

12.Learning and Teaching Resources

Main References	Clinical Optics
Supporting books and references recommended (reputable local and international university websites)	Ophthalmic Lenses and Dispensing
Electronic references, websites	

Course Description Form

1. Course Title: Ocular Radiology and Ultrasonography - Fourth Stage-

2. Course Code

3. Semester / Academic Year Semester-based 2025-2026

4. Date of Preparation of This Description: 15-8-2025

5. Available Attendance Modes: Weekly in-person, theory / practical

6. Total Study Hours (Total) / Total Units

1 theory + 2 practical, 2 units

7. Name of the Course Coordinator (mention if more than one)

Name: Asst. Lect. Ban Musa

8. Course Objectives

Course Learning Objectives	The Ocular Radiology and Ultrasonography course aims to enable the student to understand the physical and technical principles of medical imaging examinations of the eye and surrounding tissues. The course also focuses on giving students the practical skills to use ultrasound devices such as A-Scan and B-Scan with high precision. The training program includes teaching students how to detect internal diseases, tumors, retinal detachment, and vitreous hemorrhage through the interpretation of images. In addition, it aims to enhance the ability to operate devices efficiently while ensuring safety standards for the patient during the examination. Finally, the course seeks to link radiological results with comprehensive clinical diagnosis to improve the quality of medical care provided.
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9. Teaching and Learning Strategies

Strategy	Scientific experiments, smart board, the Internet, Self-learning, skill mastery, problem-based learning Brainstorming method and combining different strategies and problem-solving methods
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10. Course Structure

Week		Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	1 theory 2 practical		Comprehension and understanding	Introduction to radiological , x-ray	Lecture method with presentation of illustrative images and short films via display screens	Daily (oral and written) tests and monthly examinations
2	1 theory 2 practical		Comprehension and understanding	Standard orbital views, Radiological orbital anatomy and Radiographic changes seen with orbital pathology.	Lecture method with presentation of illustrative images and short films via display screens	Daily (oral and written) tests and monthly examinations
3	1 theory 2 practical		Comprehension and understanding	Foreign body localization by plain x-ray film	Lecture and discussion	Daily (oral and written) tests and monthly examinations
4	1 theory 2 practical		Comprehension and understanding	Introduction to computed tomography of the orbit	Lecture and discussion	Daily (oral and written) tests and monthly examinations
5	1 theory 2 practical		Comprehension and understanding	Tumors of the optic nerve, orbital tumors (primary secondary and metastasis) as	Lecture and discussion	Daily (oral and written) tests and monthly examinations

			seen by CT-scan.		
6	1 theory 2 practical	Comprehension and understanding	Introduction to MRI of the orbit and Physical principles of MRI.	Lecture and discussion	Daily (oral and written) tests and monthly examinations
7	1 theory 2 practical	Comprehension and understanding	Clinical applications of MRI and orbital diseases	Lecture and discussion	Daily (oral and written) tests and monthly examinations
8	1 theory 2 practical	Comprehension and understanding	Trauma&tumors of orbit by M R I	Lecture and discussion	Daily (oral and written) tests and monthly examinations
9	1 theory 2 practical	Comprehension and understanding	Trauma&tumors of orbit by M R I	Lecture and discussion	Daily (oral and written) tests and monthly examinations
10	1 theory 2 practical	Comprehension and understanding	Introduction of ultrasonography, ultrasound Biomicroscopy (U.B.M).	Lecture and discussion	Daily (oral and written) tests and monthly examinations
11	1 theory 2 practical	Comprehension and understanding	diagnostic orbital ultrasonography	Lecture and discussion	Daily (oral and written) tests and monthly examinations

12	1 theory 2 practical	Comprehension and understanding	diagnostic orbital ultrasonography	Lecture and discussion	Daily (oral and written) tests and monthly examinations
13	1 theory 2 practical	Comprehension and understanding	diagnostic orbital ultrasonography	Lecture and discussion	Daily (oral and written) tests and monthly examinations
14	1 theory 2 practical	Comprehension and understanding	diagnostic orbital ultrasonography	Lecture and discussion	Daily (oral and written) tests and monthly examinations
15	1 theory 2 practical	Comprehension and understanding	How to write an ultrasound report	Lecture and discussion	Daily (oral and written) tests and monthly examinations

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main References (Sources)	Ocular Ultrasound and Imaging
Supporting books and references recommended	
Electronic references, websites	

Course Description Form

1. Course Title: Pediatric Ophthalmology - Fourth Stage
2. Course Code
3. Semester / Academic Year: Semester-based 1+2 2025-2026
4. Date of Preparation of This Description: 15-8-2025
5. Available Attendance Modes: Weekly in-person, theory / practical
6. Total Study Hours (Total) / Total Units
(1x15 theory) + (2x30 practical) weekly (105 hours) - 2 units
7. Name of the Course Coordinator (mention if more than one)
Name: Lect. Sajjad Zuhair

8. Course Objectives

Course Learning Objectives

The Pediatric Ophthalmology course aims to provide the student with comprehensive knowledge of the common visual diseases and disorders affecting children at different age stages. It also focuses on training students on how to examine children's eyes and assess visual ability in ways appropriate to their different stages of growth. The course includes the study of the early diagnosis of strabismus, amblyopia, and congenital cataract and glaucoma to ensure rapid intervention. In addition, it aims to enhance understanding of modern therapeutic methods, whether medical, surgical, or using vision-correction techniques and spectacles. Finally, the course seeks to qualify the student to provide integrated health care and awareness support for families to reduce early visual disabilities.

9. Teaching and Learning Strategies

Strategy

- Modeling learning strategy
 - Group work or cooperative learning strategy
 - Discussion strategy
 - Project-based strategy
 - Problem-solving or problem-based learning strategy
 - Mastery learning strategy
- Blending different strategies

10. Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic Name	Teaching Method	Assessment Method
1	1 theory + 2 practical	Comprehension and understanding	Visual acuity in children definition	Lecture method with presentation of illustrative images and short films via display screens	Oral and written examination
2	1 theory + 2 practical	Comprehension and understanding	Visual Function	Lecture and discussion	Oral and written examination
3	1 theory + 2 practical	Comprehension and understanding	Visual Function	Lecture and discussion	Oral and written examination
4	1 theory + 2 practical	Comprehension and understanding	Visual acuity in children definition	Lecture and discussion	Oral and written examination
5	1 theory + 2 practical	Comprehension and understanding	Children Eye disorders examination	Problem-solving	Oral and written examination
6	1 theory + 2 practical	Comprehension and understanding	Indications for Referral to a Pediatric Ophthalmologist-new born	Lecture and discussion	Oral and written examination
7	1 theory + 2 practical	Comprehension and understanding	Retinopathy of prematurity	Lecture and discussion	Oral and written examination
8	1 theory + 2 practical	Comprehension and understanding	Congenital cataract	Lecture and discussion	Oral and written examination
9	1 theory + 2	Comprehension and	Congenital glaucoma	Lecture and discussion	Oral and written examination

	practical	understanding			
10	1 theory + 2 practical	Comprehension and understanding	Congenital lacrimal disease	Problem-solving	Oral and written examination
11	1 theory + 2 practical	Comprehension and understanding	Congenital disorder type	Lecture and discussion	Oral and written examination
12	1 theory + 2 practical	Comprehension and understanding	history	Lecture and discussion	Oral and written examination
13	1 theory + 2 practical	Comprehension and understanding	history	Lecture and discussion	Oral and written examination
14	1 theory + 2 practical	Comprehension and understanding	examination	Lecture and discussion	Oral and written examination
15	1 theory + 2 practical	Comprehension and understanding	revision	Lecture and discussion	Oral and written examination

11. Course Assessment

40 coursework marks divided (25 theory + 15 practical); 60 final

12. Learning and Teaching Resources

Main References (Sources)

kaniski

Supporting books and references recommended (journals and

Americam academy of ophthalmology

research)	
Electronic references, websites	

