



# Course Specification

## (Bachelor)

Course Title: **Ocular Anatomy & Physiology**

Course Code: **APOP1102**

Program: **Optician Program**

Department: **Applied College**

College: **Applied College**

Institution: **Umm Al-Qura University**

Version: **1**

Last Revision Date: **January 2025**

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## A. General information about the course:

### 1. Course Identification

1. Credit hours: ( 3 )

#### 2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others  
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: 1<sup>st</sup> level -1<sup>st</sup> year

#### 4. Course General Description:

##### 1. Course Description

This course offers a brief idea about the anatomy of primary and secondary organs of vision.

- In addition, the anatomy of eye layers will be studied. Also, muscles related to the eye (intrinsic &

extrinsic) will be enumerated and explained with their actions.

- Related eye physiology will be studied (eye fluids, transparent media, how we can see objects and refraction errors)

5. Pre-requirements for this course (if any)

6. Co-requisites for this course (if any):

#### 7. Course Main Objective(s):

The student will be able to have a good knowledge about ocular anatomy and physiology to be able to declare refractive errors.

### 2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	2	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> <li>Traditional classroom</li> </ul>		





No	Mode of Instruction	Contact Hours	Percentage
	• E-learning		
4	Distance learning		

### 3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	2x15=30
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		30

### B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Identify primary and secondary organs of vision with related physiology	K2	Lecture	- Assignments - Written exam
1.2	Explain the visual pathway and related errors of refraction	K2	Lecture	- Assignments - Written exam
1.3	List different eye muscles and eye movements	K2	Lecture	- Assignments - Written exam
2.0	Skills			
2.1	Correlate anatomical adaptation to the eye functions to define Congenital eye anomalies as well as eye errors of refraction	S.2	Interactive session Lecture	- Assignments - Written exam
				-





Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
3.0	Values, autonomy, and responsibility			
3.1	Work cooperatively in a small group environment	V.1	Class activities	Presentation

### C. Course Content

No	List of Topics	Contact Hours
		lecture
1	Primary and secondary organs of vision	2
2	Eye globe anatomy and related physiology	2
3	physiology of the eye	2
4	Eye muscles anatomy	2
5	Eye movements	2
6	Optic nerve and light pathway	2
7	Physiology of secondary organs of vision	2
8	Physiology of lacrimation and aqueous formation	2
9	Eye transparent media and lens accommodation	2
10	Visual pathway and errors of refraction	2
11	Visual pathway and errors of refraction	2
12	Congenital anomalies of the organ of vision	2
13	Congenital anomalies of the organ of vision	2
14	Presentation	2
15	Review	2
Sub- total		30
Total		30





## D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1	Quizzes	5	10
2	Mid-Term Exam	8	20
3	Presentations and homework	All week	10
4	Lab Reports	All week	10
5	final Exam (practical)	13	10
6	Final Exam	16	40

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

## E. Learning Resources and Facilities

### 1. References and Learning Resources

Essential References	<p>Stein, H.A., Slatt, B.J, and Stein R.M. (1990). <u>FITTING GUIDE FOR RIGID</u></p> <p>Stein, H.A., Slatt, B.J, and Stein R.M. (1990). <u>FITTING GUIDE FOR RIGID AND</u></p> <p><u>SOFT CONTACT LENSES A Practical Approach</u> (Third Edition). St. Louis, Baltimore. Philadelphia. Toronto: C.V. Mosby Company AND</p> <p><u>SOFT CONTACT LENSES A Practical Approach</u> (Third Edition). St. Louis, Baltimore. Philadelphia. Toronto: C.V. Mosby Company</p> <p>Contact Lens Practice (Third Edition). Nathan Efron, 2017</p>
Supportive References	Course notes on the E-learning web-site
Electronic Materials	<a href="http://www.aaopt.org/">http://www.aaopt.org/</a> <a href="https://www.apnaahangout.com/optometry/">https://www.apnaahangout.com/optometry/</a>
Other Learning Materials	

### 2. Required Facilities and equipment

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1 classroom 1 laboratory
<b>Technology equipment</b> (projector, smart board, software)	Smart Board, data show
<b>Other equipment</b> (depending on the nature of the specialty)	





## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Questioner of course quality
Effectiveness of assessment methods.	Peer reviewers	-Random grading report -Test Completion Report for test Standards
Extent of achievement of course learning outcomes	Program leaders and Course coordinator	Results of quizzes, mid-term and final exams.
Quality of learning resources	Students	Questioner of sufficiency of learning resources
Other		

**Assessors** (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

**Assessment Methods** (Direct, Indirect)

## G. Specification Approval

<b>COUNCIL /COMMITTEE</b>	Umm Al-Qura University Council
<b>REFERENCE NO.</b>	851141114462/190386
<b>DATE</b>	1446/11/22

