Jordan University of Science and Technology

Faculty of Applied Medical Sciences

Optometry Department

OPT.211 Ocular Anatomy & Physiology - JNQF Level: 7
First Semester 2023-2024

Course Catalog
3 Credit Hours. This course provides a comprehensive knowledge of the anatomical structure of the human eye which contribute to vision, starting from the anterior segment, going through the visual pathway to the posterior segment. Detailed anatomy and physiology of each structure is given from theoretical and clinical perspectives. In addition, this course introduces the students to common eye diseases and conditions and modern diagnostic tools used to evaluate the structures of the eye
Teaching Method: Blended

Text Book	
Title	Ocular Anatomy and Physiology
Author(s)	Al Lens, Sheila Coyne Nemeth, and Janice K. Ledford, Thorofare, NJ
Edition	2nd Edition
Short Name	Book
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Book	Clinical Ophthalmology: A systemic Approach	Jack J.Kanski	7th Edition	

Instructor	
Name	**Dr. Mera Haddad**
Office Location	-
Office Hours	
Email	mfhaddad@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Mon, Wed : 10:30 - 11:30
Room: M3301

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
1112180	P.T218 Gross Anatomy & Histology	Prerequisite / Study
102305	MED230B Human Physiology (Lab)	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Introduction to ocular anatomy Embryology of the eye	From **Book**
Week 2	Function and Evaluation of the orbit	From **Book**
Week 3	Eyelids and Eyelashes, anatomy and The lacrimal system The tear film	From **Book**
Week 4	The globe, Extraocular Muscles I & II	From **Book**, From **Book**
Week 5	The Conjunctiva: structure and functions The Sclera : structure and function	From **Book**
Week 6	The Cornea: structure, function and evaluation	From **Book**
Week 7	Ocular chambers: structure Evaluation of the chambers Iris and Pupil: physiology	
Week 8	Ciliary body The structure and physiology of the lens	From **Book**
Week 9	Vitreous Cavity and Choroid	From **Book**
Week 10	The retina	From **Book**
Week 11	Sensory retina Evaluation of the retina	From **Book**
Week 12	Macula and Optic disk Evaluation of the macula and optic disc	From **Book**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identify and describe key anatomical structures of the eye in the anterior and posterior segments including the cornea, lens, vitreous, retina, optic nerve and other related structures. [15PLO 3, 10PLO 5] [25L7K1]	25%	
Understand the physiological process responsible for vision, including light entry to the eye, refraction and accommodation. In addition to the conversion of light into neural signals [5PLO 1, 5PLO 3, 5PLO 5] [15L7K1]	15%	

Integrate knowledge of ocular anatomy with the physiological function, explaining how the structures of the eye contribute to its function. [10PLO 1, 5PLO 3, 5PLO 5] [10L7K1, 10L7S1]	20%	
Apply knowledge of the ocular anatomy and physiology to understand common eye diseases and conditions and discuss how abnormalities and malfunction of anatomical structures can lead to vision disturbances. [10PLO 1, 10PLO 3] [10L7S1, 10L7S2]	20%	
Recognize modern diagnostic tools and technologies used in optometry and ophthalmology. Understand common tests used to evaluate ocular structures such as the slit lamp, perimeter and OCT [20PLO 5] [20L7S1]	20%	

Relationship to Program Student Outcomes (Out of 100%)								
PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9
25		35		40				

Relationship to NQF Outcomes (Out of 100%)		
L7K1	L7S1	L7S2
50	40	10

Policy	
Attendance	- Students are expected to attend all the course lectures'. - Unexcused absences of more than 10% of the required attendance will deserve a fail in this course. - In a case of excused absence e.g. illness or emergency, students should contact the course coordinator immediately. And a formal written excuse from the physician should be submitted by the student in a case of illness, otherwise the absence will be considered unexcused. - In case of absence on the date of exam(s), students will not be allowed to set for a makeup exam unless they have got an approval from the deanship of AMS for this regard.
Expected workload	- Students are expected to be a good participant during the course lectures' - Students are expected to think critically about the knowledge that they will get during the course. - Students should set for all the specified examinations, as well as quizzes - Students are obligated to do all assignments & homework
Feedback	- All feedback, comments, opinions, concerns, requests, enquires or questions are welcomed & should be discussed in the first place with the course coordinator; either by email or in-person. - If the course instructor hasn't been cooperative regarding a specific issue, students can follow the hierarchy starting with the head of the department, followed by the dean & finally the president office. Until their problem(s) is solved. - Exams results, feedback as well as key answers will be reported & discussed after one week of the examinations date. - Questions regarding lectures' contents can either be discussed during the lecture (preferably) or during the office hours

Date Printed: 2024-02-16