Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Optometry Department

OPT.232 Binocular Vision(1) - JNQF Level: 7
Second Semester 2023-2024

Course Catalog
2 Credit Hours. This course is designed to introduce optometry students to the normal binocular status of the human eye. It develops a strong foundation and deep understanding of binocular vision and ocular motility, and emphasizes on the advantages of single binocular vision (BV), fusion and stereopsis.
Teaching Method: On Campus

Text Book	
Title	Normal binocular vision : theory, investigation, and practical aspects
Author(s)	Stidwill, David. Fletcher, Robert
Edition	2nd Edition
Short Name	Ref #1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	Practical binocular vision assessment	Eperjesi, Frank & Rundstrom, M. M	2nd Edition	

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

Class Schedule & Room

Section 1:
Lecture Time: Sun, Tue : 11:30 - 12:30
Room: N1303

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
1102131	OPT.213 Ocular Anatomy & Physiology Lab	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Introduction to binoculat vision	From **Ref #1**
Week 2	Concepts of binocular vision 1	From **Ref #1**
Week 3	Concepts of binocular vision 2	From **Ref #1**
Week 4	Accommodation	From **Ref #1**
Week 5	Fusion and stereopsis	From **Ref #1**
Week 6	Stereopsis and stereotests	From **Ref #1**
Week 7	Heterophoria	From **Ref #1**
Week 8	Investigation of phoria 1	From **Ref #1**
Week 9	Investigation of phoria 2	From **Ref #1**
Week 10	Fixation disparity	From **Ref #1**
Week 11	Vergence	From **Ref #1**
Week 12	Oculo-motor movement	From **Ref #1**
Weeks 13, 14	Consequences of strabismus	From **Ref #1**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Develop deep understanding of the concept of binocular vision such as fusion and stereopsis and understand the integration of the information from both eyes. [20PLO 3] [20L7K1]	20%	
Understand the motor function of extraocular muscles and their role in binocular alignment. Understand how eye movements are coordinated to do visual tracking, convergence and divergence [20PLO 3] [20L7K1]	20%	
Demonstrate knowledge of the integration of binocular vision and ocular motility such as the alignment of both eyes to create a single and clear viewing conditions [10PLO 3, 10PLO 5] [20L7K1]	20%	

Recognize common binocular vision anomalies and understand their implication for visual comfort and vision. Apply theoretical knowledge to the assessment of binocular vision and ocular motility using a range of diagnostic tests [5PLO 3, 5PLO 4, 10PLO 5]	20%	
Apply theoretical knowledge to the assessment of binocular vision and ocular motility using a range of diagnostic tests such as cover test and explore the theory behind treatment modalities including orthoptic exercise and the use of prisms. [20PLO 5] [5L7S1, 5L7S3, 10L7C4]	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
		55	5	40				

Relationship to NQF Outcomes (Out of 100%)			
L7K1	L7S1	L7S3	L7C4
60	5	5	10

Evaluation	
Assessment Tool	**Weight**
Midterm exam	50%
Final exam	50%

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