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

OPT.252 Ophthalmic Lenses & Dispensing (1) - JNQF Level: 7

Second Semester 2023-2024

Course Catalog
2 Credit Hours. Ophthalmic Lenses & Dispensing 1 is a foundational course designed to provide students with a comprehensive understanding of corrective lenses, lens materials, and various aspects of lens dispensing. The course covers essential topics such as the properties of corrective lenses, the selection of appropriate lens materials, and the fitting and dispensing of lenses to meet individual patient needs. Students will also delve into advanced topics including bifocal and progressive lenses, neutralization, lensometry, centration, prism measurement, and the integration of lenses into frames. Through a combination of theoretical instruction and practical exercises, students will develop the knowledge and skills necessary for effective lens dispensing and patient care.
Teaching Method: On Campus

Text Book	
Title	Ophthalmic lenses & dispensing
Author(s)	Butterworth- Heinemann
Edition	2nd Edition
Short Name	Ref #1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	Clinical Optics Duke-Elder?s practice of refraction	Grosvenor & Fannin David Abrams	10th Edition	

Instructor	
Name	**Dr. Mohammad Anwar Alebrahim**
Office Location	Faculty of Applied Medical Sciences - GF
Office Hours	

Email	maalebrahim@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Mon, Wed : 08:30 - 09:30 Room: PH2102

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
1102050	OPT.205 Visual Optics Lab	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Weeks 1, 2, 3	Introduction to corrective lenses and their importance in vision correction Types of corrective lenses: single vision, bifocal, trifocal, and progressive Factors influencing lens selection: refractive error, prescription requirements, and patient preferences	From **Ref #1**, From **Ref #2**
Weeks 4, 5, 6	Lens Material: Properties of lens materials: glass, plastic, polycarbonate, and high-index materials Considerations for lens material selection: optical clarity, impact resistance, and weight Advantages and disadvantages of different lens materials in various applications	From **Ref #1**
Weeks 7, 8	Bifocal and Progressive Lenses: Design principles and characteristics of bifocal lenses Progressive addition lenses (PALs): design, advantages, and limitations Fitting and dispensing considerations for bifocal and progressive lenses	From **Ref #1**
Weeks 9, 10	Neutralization and Lensometry: Neutralization techniques for determining lens power and axis Principles of lensometry: measurement of lens power, cylinder power, and axis Hands-on practice with lensometers for accurate lens measurement and verification	From **Ref #1**
Weeks 11, 12, 13	Centration and Prism Measurement: Importance of proper lens centration in optimizing visual performance Techniques for measuring and adjusting optical center and fitting height Prism measurement and correction: assessment of binocular vision and alignment	From **Ref #1**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand the properties and characteristics of various lens materials used in ophthalmic lenses, including glass, plastic, polycarbonate, and high-index materials [1PLO 1] [1L7K1]	25%	
Demonstrate proficiency in performing lensometry measurements to accurately determine lens power, cylinder power, and axis, ensuring precise lens prescription verification and dispensing. [1PLO 3] [1L7S1, 1L7S2]	40%	
Apply principles of centration and prism measurement to effectively assess and correct optical centering, fitting height, and binocular alignment in the dispensing of ophthalmic lenses, facilitating optimal visual performance and patient satisfaction. [1PLO 3] [1L7C4]	35%	

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		75						

Relationship to NQF Outcomes (Out of 100%)			
L7K1	L7S1	L7S2	L7C4
25	20	20	35

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

Policy	
Code of Conduct and Academic Integrity Guidelines	Statement on Professionalism Professional behavior is expected of students at all times. Attitude and professional behavior are a minimum criterion for passing this class. Examples of unprofessional behavior include but are not limited to: missing classes, tardiness, lack of attention for a speaker, talking to others during lecture, leaving a lecture prior to its completion without prior authorization of the instructor, working on other class material during class, and sleeping during class. Cheating: University regulations will be applied on cases of cheating and/or plagiarism Cell phone: The use of cellular phone is prohibited in class rooms and during exams. The cellular phone must be switched off in class rooms and during exams. Attendance: No points will be count for points attendance of this class, however attending the lectures will greatly enhance your grade. The student is responsible for any information discussed in lecture sessions. It is imperative to attend all classes! Absences: University regulations will be applied. Students are not allowed to be absent for more than 20% of lectures for any reason or excuse. If a student exceeds the absence limit, he or she will not be allowed to sit for future course exams. (Please review university regulation for more details) Make-up Exam: is entitled for students who miss the exam with accepted legal or medical excuse endorsed by the instructor within 24 hours after the scheduled exam (Please review university regulation for more details) Feedback: Concerns, complaints, questions, and/or feedback are appreciated and will be important for the instructor. You can contact your instructor using the e-mail or during office hours.

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