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

OPT.254 Ophthalmic Lenses & Dispensing (1) Lab - JNQF Level: 7

Second Semester 2023-2024

Course Catalog
1 Credit Hours. Ophthalmic Lenses & Dispensing Lab 1 is a hands-on laboratory course designed to complement theoretical knowledge with practical skills in the field of ophthalmic lens dispensing. This course focuses on providing students with practical experience in handling and dispensing corrective lenses, understanding various lens motions, performing neutralization, utilizing lensometers for precise measurements, and adjusting frames to ensure optimal fit and comfort for patients. Through a combination of laboratory exercises, demonstrations, and simulations, students will develop proficiency in lens tinting, protection, motion differentiation, neutralization techniques, lensometry, inter-pupillary distance measurements, and frame adjustments.
Teaching Method: On Campus

Text Book	
Title	Clinical Optics Duke-Elder?s practice of refraction
Author(s)	Grosvenor & Fannin David Abrams
Edition	2nd Edition
Short Name	Ref #1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	Ophthalmic lenses & dispensing	Butterworth-Heinemann & Churchill livingstone	2nd 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: Thu : 10:30 - 12:30 Room: LAB Section 2: Lecture Time: Tue : 09:30 - 11:30 Room: LAB Section 3: Lecture Time: Wed : 09:30 - 11:30 Room: LAB

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Corrective Lens: Introduction to different types of corrective lenses: single vision, bifocal, trifocal, and progressive lenses Lens tinting techniques and considerations for UV protection Understanding lens protection coatings and their applications	From **Ref #1**, From **Ref #2**
Week 3	Differentiate Lens Motion, Neutralization: Explanation and demonstration of various lens motions: centration, tilt, and decentration Practical exercises to differentiate lens motions and their effects on visual performance Hands-on experience in performing neutralization to determine lens power and axis accurately	From **Ref #1**, From **Ref #2**
Weeks 4, 5	Lensometer: Sphere and Sphere Cylinder Lens: Introduction to lensometer operation and components Practical demonstrations and exercises on measuring sphere and sphere cylinder lenses using a lensometer Interpretation of lensometer readings and verification of lens prescriptions	From **Ref #1**, From **Ref #2**
Weeks 6, 7	Lensometer: Bifocal and Progressive Lens: Advanced lensometer techniques for measuring bifocal and progressive lenses Hands-on practice in identifying and measuring various zones of bifocal and progressive lenses Interpretation of lensometer readings for bifocal and progressive lens prescriptions	From **Ref #1**, From **Ref #2**
Week 8	Inter Pupillary Distance and Frame Types and PD: Measurement of inter-pupillary distance (PD) using appropriate tools and techniques Introduction to different frame types and their features Considerations for selecting frames based on PD and facial characteristics	From **Ref #1**
Week 10	Decentration: Understanding the importance of lens decentration in optimizing visual performance Practical exercises in assessing and adjusting lens decentration for improved comfort and visual clarity	From **Ref #1**, From **Ref #2**
Week 11	Frame Adjustment: Techniques for frame adjustment to ensure proper fit and alignment Hands-on practice in adjusting frame temples, bridges, and nose pads for optimal comfort and stability Troubleshooting common frame adjustment issues and solutions	From **Ref #1**, From **Ref #2**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand the importance of lens tinting, UV protection, and protective coatings in ophthalmic lenses, and demonstrate knowledge of appropriate techniques and materials for enhancing lens functionality and durability. [1PLO 3] [1L7K1]	20%	
Demonstrate proficiency in utilizing lensometer equipment to accurately measure and verify the power and axis of various types of ophthalmic lenses, including single vision, bifocal, trifocal, and progressive lenses. [1PLO 1, 1PLO 2] [1L7S2, 1L7S3]	40%	
Apply principles of frame adjustment techniques to effectively customize and fit eyeglass frames for individual patients, ensuring optimal comfort, stability, and alignment. [1PLO 4] [1L7C4]	40%	

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
20	20	20	40					

Relationship to NQF Outcomes (Out of 100%)			
L7K1	L7S2	L7S3	L7C4
20	20	20	40

Evaluation	
Assessment Tool	**Weight**
Midterm Practical Exam	30%
Quizzes	20%
Final Practical 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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