# Jordan University of Science and Technology

## Faculty of Applied Medical Sciences

## Optometry Department

OPT.353 Ophthalmic Lenses And Dispensing (2) Lab - JNQF Level: 6

First Semester 2023-2024

| Course Catalog |
|---|
| 2 Credit Hours. The Ophthalmic Lenses and Dispensing II Lab is an essential component of the comprehensive course curriculum, designed to provide students with hands-on experience and practical skills in the dispensing of ophthalmic lenses. This lab course focuses on mastering advanced techniques in lens dispensing, frame measurements, lensometry, lens marking, edging, and tinting, equipping students with the necessary competencies for professional practice in optometry, ophthalmology, or opticianry. Students will engage in a series of structured laboratory sessions covering the following topics: Dispensing Glass and Frame Measurements: Students will learn how to accurately measure frame dimensions, including Inter-Pupillary Distance (I.P.D.), Frame Pupil Distance (F.P.D.), and apply the Boxing System for proper frame fitting. Practical exercises will enable students to dispense glass lenses effectively, ensuring precise alignment and fit within frames. Review Lensometer and Lens Marking: Through hands-on demonstrations, students will review the operation of a lensometer and practice marking lenses for monocular, bifocal, and progressive prescriptions. Emphasis will be placed on accurate interpretation and marking of lens powers, cylinder axes, and prism corrections. Decentration and Blocking: Students will explore techniques for lens de-centration and blocking, essential for ensuring optimal lens alignment and stability during the edging process. Practical exercises will reinforce concepts of lens de-centration and blocking for both single vision and multifocal lenses. Edging Lens: Through demonstrations and hands-on practice, students will learn both manual (hand) and automated (auto) edging techniques. Techniques for edging rimless and three-piece lenses will be covered, enabling students to produce accurately edged lenses for various frame styles. Tinting Lenses: Students will explore the principles and techniques of lens tinting for enhancing visual performance and protection. Practical exercises will cover the application of tinting solutions to lenses, ensuring consistent coloration and UV protection properties. By actively participating in the Ophthalmic Lenses and Dispensing II Lab, students will develop proficiency in advanced dispensing techniques, lensometry, lens marking, edging, and tinting. Through hands-on practice and guided instruction, students will acquire the skills and confidence necessary to excel in their professional careers within the optical industry. |

| Text Book | |
|---|---|
| **Title** | Bennett?s Ophthalmic Prescription Work |
| **Author(s)** | Bennett Arthur G |
| **Edition** | 3rd Edition |
| **Short Name** | 1 |
| **Other Information** | |

**Course References**

| Short name | Book name | Author(s) | Edition | Other Information |
|---|---|---|---|---|
| Ref #2 | Ophthalmic lenses and dispensing | Mo Jalie | 2nd Edition | |

| Instructor | |
|---|---|
| Name | **Dr. Mohammad Anwar Alebrahim** |
| Office Location | Faculty of Applied Medical Sciences - GF |
| Office Hours | Sun : 14:30 - 15:30<br>Mon : 10:30 - 12:30<br>Tue : 14:30 - 15:30<br>Wed : 10:30 - 12:30 |
| Email | maalebrahim@just.edu.jo |

**Class Schedule & Room**

Section 1:
Lecture Time: Sun : 10:30 - 14:30
Room: LAB

Section 2:
Lecture Time: Tue : 10:30 - 14:30
Room: LAB

Section 3:
Lecture Time: Thu : 08:30 - 12:30
Room: LAB

**Tentative List of Topics Covered**

| Weeks | Topic | References |
|---|---|---|
| Weeks 1, 2 | How to dispense glass and Frame measurements (I.P.D. ,F.P.D. , Boxing system ) & Review lensometer | From **1** |
| Weeks 3, 4 | Decentration and blocking | From **1** |
| Weeks 5, 6 | Former | From **1** |
| Weeks 7, 8 | Edging lens ( Hand edging & Auto edging ) | From **1** |
| Weeks 9, 10 | Rimless and three pieces lens edging | From **1** |
| Week 11 | Tinting lenses | From **1** |

| Mapping of Course Outcomes to Program Outcomes and NQF Outcomes | Course Outcome Weight (Out of 100%) | Assessment method |
|---|---|---|
| Demonstrate proficiency in accurate frame measurements, including Inter-Pupillary Distance (I.P.D.), Frame Pupil Distance (F.P.D.), and the Boxing System, and apply this knowledge to effectively dispense glass lenses, ensuring precise alignment and fit within frames. [1PLO 1, 1PLO 2] [1L6S1] | 30% | |
| Apply advanced techniques in lensometry and lens marking to accurately interpret and mark lenses for monocular, bifocal, and progressive prescriptions, enabling precise lens customization and optimal visual correction for patients. [1PLO 3] [1L6K2] | 40% | |
| Master the techniques of lens de-centration, blocking, edging (both manual and automated), and tinting, enabling students to produce accurately edged lenses for various frame styles and apply tinting solutions effectively to enhance visual performance and UV protection properties of lenses. [1PLO 1] [1L6S1] | 30% | |

| 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 |
| 45 | 15 | 40 | | | | | | |

| Relationship to NQF Outcomes (Out of 100%) | |
|---|---|
| L6K2 | L6S1 |
| 40 | 60 |

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

| Policy |
|---|

| | |
|---|---|
| Code of Conduct and Academic Integrity Guidelines | Statement on Professionalism<br>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.<br><br>Cheating: University regulations will be applied on cases of cheating and/or plagiarism<br><br>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.<br><br>Attendance: No points will be count for points attendance of this class, however attending the lectures will greatly enhance your grade. The student is<br>responsible for any information discussed in lecture sessions. It is imperative to attend all classes!<br><br>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<br>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)<br><br>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)<br>Feedback: Concerns, complaints, questions, and/or feedback are appreciated and will be important for the instructor. You can contact your instructor<br>using the e-mail or during office hours. |

Date Printed: 2024-02-11