Jordan University of Science and Technology

Faculty of Applied Medical Sciences

Optometry Department

OPT.323 Ocular Pharmacology - JNQF Level: 7
First Semester 2023-2024

Course Catalog
2 Credit Hours. This course is aimed to identify the pharmacokinetic and pharmacodynamics principles of ocular drug design and delivery. There will be emphasis on the selection and use of ophthalmic diagnostic pharmaceutical agents. Student will study the contraindication and warning, and management of adverse side effect of these drugs. By the end of this course student are expected to be able to know the clinical importance of the drugs discussed in this course and their possible side effect and to relate them to ocular selected cases. Teaching mode: Face to Face
Teaching Method: On Campus

Text Book	
Title	Clinical ocular pharmacology
Author(s)	Bartlett J, and Jannus S
Edition	2nd Edition
Short Name	Ref. 1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref. 2	Ocular Therapeutics: pharmacology and clinical application	Fechner, Paul U	1st Edition	

Instructor	
Name	**Dr. Areej Okashah**
Office Location	AMS-L1
Office Hours	
Email	aaokashah@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Tue : 09:30 - 10:30 Room: M3304

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 the course	From **Ref. 1**, From **Ref. 2**
Weeks 2, 3, 4	General and ocular pharmacology: Pharmacokinetics	From **Ref. 2**
Weeks 5, 6	General and ocular pharmacology: Pharmacodynamics	From **Ref. 2**
Weeks 7, 8	Ocular dosage forms and routs of drug administration Local Anesthetics	From **Ref. 1**, From **Ref. 2**
Week 9	Ocular lubricants	From **Ref. 1**, From **Ref. 2**
Week 10	Miotics, Mydriatics and mydriolytics, Cycloplegics	From **Ref. 1**, From **Ref. 2**
Weeks 10, 11	Ocular hypotensive medications	From **Ref. 1**, From **Ref. 2**
Week 11	Anti-infective drugs	From **Ref. 1**, From **Ref. 2**
Week 12	Anti-inflammatory drugs	From **Ref. 2**
Week 13	Anti-allergy and Anti-allergy and ocular decongestant drugs	From **Ref. 2**
Week 14	Ocular Anesthetics, Irrigating solutions, Dyes, surgical adjuncts	From **Ref. 1**, From **Ref. 2**
Week 15	Ocular effects of systemic medications	From **Ref. 1**, From **Ref. 2**
Weeks 15, 16	Ocular therapeutics: Cases discussion (Selected cases for discussion)	From **Ref. 1**, From **Ref. 2**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method

Demonstrate knowledge with the important terminology and fundamental concepts in pharmacology and ocular therapeutics [1PLO 5] [1L7K1]	10%	Semester work
Demonstrate knowledge of the pharmacokinetics and pharmacodynamics of ocular medications and factors affecting these in human body, and particularly the ocular system [1PLO 1] [1L7S1, 1L7S2]	10%	Semester work
Demonstrate knowledge of the commonly used and/or prescribed ocular medications usages and indications. [1PLO 2, 1PLO 5, 1PLO 8] [1L7K1, 1L7S1, 1L7C2, 1L7C4]	20%	Semester work
Identify contra-indications of ocular medications. [1PLO 7, 1PLO 8] [1L7S2, 1L7S3]	10%	Semester work
Identify ocular medications side effects and drug-drug interactions [1PLO 4, 1PLO 7, 1PLO 8] [1L7S2, 1L7S3]	10%	Final exam
Calculate ocular medications dosage and the effective dose [1PLO 1, 1PLO 5] [1L7C2, 1L7C4]	10%	Final exam
Recognize the effect of systemic therapy on the ocular drug delivery and action [1PLO 7, 1PLO 8] [1L7S3, 1L7C2]	10%	Final exam
Explore medical management options of common ocular disorders [1PLO 1, 1PLO 5, 1PLO 6] [1L7S2, 1L7C4]	10%	Final exam
To relate knowledge of ocular medications to selected cases of ocular conditions. [1PLO 2, 1PLO 6, 1PLO 8] [1L7C3, 1L7C4]	10%	Final exam

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
18.33	10		3.33	25	6.67	13.33	23.33	

Relationship to NQF Outcomes (Out of 100%)						
L7K1	L7S1	L7S2	L7S3	L7C2	L7C3	L7C4
15	10	20	15	15	5	20

Evaluation	
Assessment Tool	**Weight**
Semester work	50%
Final exam	50%

Policy	
Statement on Professionalism	Professional behavior is expected from students all the time. 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 and/or plagiarism	University regulations will be applied on cases of cheating and/or plagiarism
Attendance - Absences	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 exams	Make-up exams is allowed for students who miss the exam with officially accepted legal or medical excuse endorsed by the instructor within 24 hours after the scheduled exam (Please review university regulation for more details)
Feedback/complaints/ concerns	Concerns, complaints, questions, and/or feedback are appreciated and will be important for the instructor. You can contact the course's instructor during office hours, or through email, or e-learning messages.

Date Printed: 2024-02-13