

**The University of Jordan**

**Accreditation & Quality Assurance Center**

**COURSE Syllabus**

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| **1** | Course title | Pharmacology 1 |
| **2** | Course number | 1203363 |
| **3** | Credit hours (theory, practical) | 3 hours/theory |
| Contact hours (theory, practical) | 3 hours |
| **4** | Prerequisites/corequisites | Physiology II (0551215) |
| **5** | Program title | Pharmacy / Pharm D |
| **6** | Program code |  |
| **7** | Awarding institution | University of Jordan |
| **8** | Faculty | Pharmacy |
| **9** | Department | Department of Biopharmaceutics & Clinical Pharmacy |
| **10** | Level of course  | 3rd year |
| **11** | Year of study and semester(s) | 2021/2022;First semester  |
| **12** | Final Qualification | BSc pharmacy/ PharmD |
| **13** | Other department(s) involved in teaching the course | None |
| **14** | Language of Instruction | English |
| **15** | Date of production/revision | 20/10/2021 |

16. Course Coordinator:

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| **Dr. Rima Hijazeen***Email:* r.hijazeen@ju.edu.joOffice no. 119 , Ext: 23258Office hours: Sunday-Wednesday 8-10 A.M |

17.Other instructors:

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| **Dr.Sameh Al-Zubiedi***Email:* s.alzubiedi@ju.edu.joOffice no. , Ext: 23368Office hours:Dr. Nailya BoulatovaEmail: nyounes@ju.edu.jo |

**18. Course Description:**

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| Pharmacology is the study of drugs. The course will cover the important concepts students need to know about the basis of drug action and the pharmacological basis of therapeutics. The first part of the course will deal with general principles of pharmacology, including pharmacodynamics, and pharmacokinetics.The second part will focus on systemic pharmacology and will involve discussions of major drug classes as they relate to organ systems or major pathophysiological diseases. Topics include: autonomic drugs, cardiovascular-renal drugs, drugs acting on the blood and drugs used to treat disease of inflammation. |

19. Course aims and outcomes:

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| A- Aims:The central goal of the Pharmacology I course is two-fold. First, to provide students with working knowledge and a solid background in the basic concepts and scientific underpinnings of Pharmacology. Second, to provide students with a comprehensive introduction to the fundamental pharmacology and uses of the major classes of clinically important drugs currently used in medical practice.When you’re finished with Pharmacology I, students will be aware of how drugs affect the body in intended and unintended ways, and you will be ready to move on to Pharmacology II and other relevant courses.B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to:1) Identify basic principles of pharmacokinetics, pharmacodynamics, molecular processes associated with drug actions and drug interactions and major drug classes as they relate to organ systems or major pathophysiological diseases and discuss representative medications within specific classifications.2) Recall the elements of anatomy and physiology as appropriate for the autonomic system and various cardiovascular disorders3) Explain the characteristics of major groups of drugs and selected individual medications acting on the autonomic system and drugs used to treatblood and cardiovascular disorders, in term of the following: mechanism(s) of action; pharmacokinetic properties; therapeutic uses; adverse effects; drug-drug and drug-food interactions.4) Apply gained knowledge in medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders to explain clinical uses and adverse effects of these agents for treatment of common disease states.5) Proactively investigate, collect and interpret information related to medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders, through browsing the internet based professional web sites and databases (MEDLINE, e-library).6) Provide education to the patients about the proper use of medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders and their possible adverse effects7) Demonstrate integrity by not cheating in exams and not committing plagiarism8) Demonstrate respect to professors and classmates by observing active listening inside the classroom. |

 20. Topic Outline and Schedule:

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| Topic | Weekno. | Instructor | Achieved ILOs | Evaluation Methods | Reference (Katzung 15th ed, 14th ed) |
| **\*BASIC PRINCIPLES** |
| Introduction to pharmacology | 1 |  | 1-8 | Exams | 1 |
| Pharmacokinetics | 2 |  | 1-8 | Exams | 3 |
| Pharmacodynamics | 3 |  | 1-8 | Exams | 2 |
| **\*AUTONOMIC DRUGS** |
| Cholinoceptor-activating &cholinesrterase-inhibiting drugs | 4 |  | 1-8 | Exams | 7 |
| Cholinoceptor blocking drugs | 5 |  | 1-8 | Exams | 8 |
| Adrenoceptor-agonists & sympathomimetic drugs | 6 |  | 1-8 | Exams | 9 |
| Adrenoceptor Antagonist Drugs | 7 |  | 1-8 | Exams | 10 |
| **\*CARDIOVASCULAR-RENAL DRUGS** |
| Diuretic Agents | 8 |  | 1-8 | Exams | 15 |
| Antihypertensive Agents | 9 |  | 1-8 | Exams | 11 |
| Vasodilators & treatment of Angina Pectoris  | 10 |  | 1-8 | Exams | 12 |
| Drugs used in Heart failure | 11 |  | 1-8 | Exams | 13 |
| **\* DRUGS USED TO TREAT DISEASES O F THE BLOOD, INFLAMMATION, & GOUT** |
| Agents used in Hyperlipidemia | 12 |  | 1-8 | Exams | 35 |
| Drugs used in disorders of coagulation | 13 |  | 1-8 | Exams | 34 |

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21. Teaching Methods and Assignments:

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| **ILO/s** | **Learning Methods** |
| **1** | Lecturing |
| **2** | Lecturing |
| **3** | Lecturing |
| **4** | Lecturing |
| **5** | Assignments, team learning  |
| **6** | Giving examples and creating hypothetical scenarios during the lecture |
| **7** | Role model |
| **8** | Role model |

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22. Evaluation Methods and Course Requirements:

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| Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

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| **ILO/s** | **Evaluation Methods** |
| **1** | Exams |
| **2** | Exams |
| **3** | Exams |
| **4** | Exams |
| **5** | Oral discussion (not marked) |
| **6** | Oral discussion (not marked) |
| **7** | Applying cheating policy |
| **8** | Not evaluated |

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23. Course Policies:

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| A- Attendance policies:- Attendance to the lectures is expected and mandatory.- Students who are more than 5-10 minutes late for, or who leave early from class will be counted as absent.- Students are allowed maximum of 15% of scheduled class hours per term. Any single absence beyond that will be reported to the dean and student will be subjected to the rules and regulations of University of Jordan including course dismissal. For 3 hours credit course the following regulations apply***First warning*** – with 4 absences***Last warning*** – with 5 absencesFailing in the subject – with 6 absencesB- Absences fromexams andhandinginassignmentson time:Makeup exams should not be given unless there is a valid excuse: student’s hospitalization or death of a first degree family member. Arrangements to take an exam at a time different than the one scheduled MUST be made prior to the scheduled exam time.C- Health and safetyprocedures:N/AD- Honesty policy regarding cheating, plagiarism, misbehavior:The participation, the commitment of cheating will lead to applying all following penalties together:* Failing the subject he/she cheated at
* Failing the other subjects taken in the same course
* Not allowed to register for the next semester
* The summer semester is not considered as a semester

E- Grading policy:* **Quiz (10 questions as MCQ): 10**
* **Assignment (Role Play): 10**
* **Midterm exam: 30 (To be announced)**
* **Final exam: 50(To be announced)**

The grades distribution has been detailed above. All pre-final marks (out of 50) are to be announced to students before the final exams. If the student is in doubt about his pre-final marks, he needs to contact his instructor to revise the marks. Final marks are not announced.However students are allowed to submitan official request for mark review, the instructor will review the mark and submit a written report about the results of the review.F- Available university services that support achievement in the course:Classrooms, library, internet classes and access to scientific sites |

24. Required equipment:

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| A computer and an internet connection |

**25. References:**

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| 1. Required book (s), assigned reading and audio-visuals:
* **Main Reference**:
* Basic & Clinical & Pharmacology, ed. Bertram G. Katzung, Todd W. Vanderah,14th edition, 2021. McGraw-Hill Medical. ISBN 978-1-260-45231-0
* Basic & Clinical & Pharmacology, ed. Katzung,14th edition, 2018. McGraw-Hill Medical. ISBN: 978-1-260-28817-9
1. **Recommended books, materials, and media:**
* Pharmacology: Examination & Board review. Katzung & Trevor, 12th edition, 2019. ISBN 978-1-259-64102-2
* Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th edition, 2018. ISBN 978-1-25-958473-2
* Access Pharmacy: <http://accesspharmacy.mhmedical.com/>
* UpToDate: [www.uptodate.com](http://www.uptodate.com)
* Electronic Library of Medicine – Jordan: <http://www.elm.jo/>
* <https://www.drugs.com/>
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26. Additional information:

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| **Course Material and Announcements:** Students need to use the e-learning page at the JU website in order to get all lecture handouts and guidelines which will be uploaded there. In addition, course related announcements and exam results will be posted on the e-learning page and **it is the responsibility of each student to check the site regularly**.Username and password to access the course on the e-learning page will be provided to students in the beginning of the semester.**Grievance Policy**According to the general policies applied at the University of Jordan for grievance, when there is a complaint or conflict between a student and an academic/staff member or another student, the following procedures must be followed:1. The student writes a formal complaint describing the situation of conflict to the Dean of the School or the President of the University.
2. Dean or President will first try to resolve the controversy by meeting/listening to both parties.
3. If agreement was not possible, Dean or president forms an investigation committee which will follow, within a specified timeline, the general policies for relevant circumstances. The following points are considered:

a.       The committee will meet/talk to both parties and witnesses (if applicable) within two weeks of conflict.b.      All meetings and discussions are documented according to the university policies.c.       Results/ recommendations will be sent to the Dean or President who is responsible for their implementation |



Name of Course Coordinator: **Rima A. Hijazeen** Signature: -------------------------

Date: 20-10-2021

Head of curriculum committee/Department: ------------------------- Signature: ---------------------------------

Head of Department: ------------------------- Signature: ---------------------------------

Head of curriculum committee/Faculty: ------------------------- Signature: ---------------------------------

Dean: ------------------------------------------- -Signature: ---------------------------------

Copy to:

 Head of Department

 Assistant Dean for Quality Assurance

 Course File