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| **1** | **Course title** | Pharmacotherapy III |
| **2** | **Course number** | 1203504 |
| **3** | **Credit hours** |  3 (theory) |
| **Contact hours (theory, practical)** | 3 (theory) |
| **4** | **Prerequisites/corequisites** | 1203364 (Pharmacology II) |
| **5** | **Program title** | PharmD |
| **6** | **Program code** |  |
| **7** | **Awarding institution**  | The University of Jordan |
| **8** | **School** | Pharmacy |
| **9** | **Department** | Biopharmaceutics & Clinical Pharmacy |
| **10** | **Level of course**  | undergraduate |
| **11** | **Year of study and semester (s)** | First semester of the 5th year |
| **12** | **Final Qualification** | PharmD |
| **13** | **Other department (s) involved in teaching the course** |  |
| **14** | **Language of Instruction** | English |
| **15** | **Teaching methodology** | [x] Blended [ ] Online |
| **16** | **Electronic platform(s)** | [ ] Moodle [x] Microsoft Teams [ ] Skype [ ] Zoom [ ] Others………… |
| **17** | **Date of production/revision** | October 3, 2021 |

**18 Course Coordinator:**

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| * Prof. Nailya Bulatova, MD, PhD.

<http://eacademic.ju.edu.jo/nyounes/default.aspx>* Office 122
* Phone 5 355 000, Ext. 23350
* E-mail: nyounes@ju.edu.jo
* Office hours to be announced
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**19 Other instructors:**

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| * Prof. Mayyada Al-Wazaify
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**20 Course Description:**

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| Will cover the pathophysiology, clinical presentations, pharmacotherapy (pharmacokinetics & pharmacodynamics, drug/drug interactions, dosage calculations, adverse effects, treatment algorithms, goals of therapy & patient education) of: selected oncology, gastrointestinal, nephrology & CNS conditions. |

**21 Course aims and outcomes:**

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| A- Aims:1. Describe the clinical manifestations of selected oncology, gastrointestinal, nephrology & CNS conditions
2. Understand the clinical issues of medication use
3. Provide patient education about disease and medications
4. Recommend the most appropriate pharmacological and nonpharmacological treatment for a selected patient
* Program Competencies Achieved:
1. Identify pathophysiological basis of major human diseases
2. Assess symptoms and diagnostic tests and correlate them with associated diseases
3. Identify indications, side effects and contraindications of medicines
4. Identify drug-drug and drug-food interactions of medicines
5. Verify that patient therapy is based on best scientific evidence available
6. Advise patients and other health professionals on proper usage of medicines including their strength, frequency, dosage form and route of administration
7. Identify any medicament-related problems and take appropriate actions to resolve them
8. Recommend necessary modifications to patient therapy to optimize its safety and efficacy
9. Follow new advances in science related to the profession
10. Utilize information technology tools to enhance working experience

B- **Course Intended Learning Outcomes (ILOs):** Upon successful completion of this course students will be able to …1. ***Knowledge and understanding***:
2. To provide students with the knowledge of clinical manifestations, complications, goals of pharmacotherapy and patient education of selected oncology, gastrointestinal, nephrology & CNS conditions. To provide students with the knowledge of clinical uses, pharmacokinetics, clinically significant side effects, drug interactions and contraindications to medications used in the management of the above mentioned conditions.
3. ***Intellectual skills:***

To enable students to identify drug-related problems and recommend the appropriate pharmacotherapy treatment.1. ***Subject-specific skills:***

To provide students with the skills required to design rational pharmacotherapy regimens according to the patients’ specific conditions.1. ***Transferable skills:***
2. To enable students to provide information related to diseases and their management through browsing the internet professional sites.
3. To enable students to collect and interpret information from medical guidelines & journal databases (MEDLINE, e-library)

Learning skills:* **Critical thinking**
* **Digital literacy**
* **Problem-solving skills**
* **Self-directed learning**
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**22. Topic Outline and Schedule:**

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| **Week** | **Lecture** | **Topic** | **Teaching Methods\*/platform** | **Evaluation Methods\*\*** | **References** |
| 1NB | 1.1 |  **Introduction to the course.** Clinical pharmacology of cancer  |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |  Specified in each lecture. General references provided below            |
| 1.2 |  General principles of cancer chemotherapy |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 2NB | 2.1 |  Supportive care for cancer patients1. emesis  |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 2.2 |  2. infections+myeloid growth factors |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 3NB | 3.1 |  Supportive care for cancer patients3. anemia  |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 3.2 |  4. VTE, miscellaneous ADRs of chemotherapy |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 4NB | 4.1 |  Portal hypertension & cirrhosis |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 4.2 |  Portal hypertension & cirrhosis |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 5NB | 5.1 |  Viral hepatitis |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 5.2 |  Viral hepatitis |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 6NB | 6.1 |  Inflammatory bowel disease |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 6.2 |  Inflammatory bowel disease |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 7NB | 7.1 |  Solid Organ Transplantation |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 7.2 |  Solid Organ Transplantation |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |  |
| Midterm Exam weeks 8/9 Prof. Bulatova |
| 8MW | 8.1 |  Depressive disordersTypes- Diagnosis- DSM-V |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |   |
| 8.2 | Treatment of MDD |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes | Specified in each lecture. General references provided below        |
| 9MW | 9.1 | Pharmacotherapy of MDD |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 9.2 | Pharmacotherapy of MDD |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 10MW | 10.1 | Anxiety disorders (GAD, SAD, Panic Disorder, Phobias) |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 10.2 | Anxiety disorders (GAD, SAD, Panic Disorder, Phobias) |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 11MW | 11.1 |  Anxiety Disorders (PTSD, OCD) |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 11.2 |  Anxiety Disorders (PTSD, OCD) |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 12MW | 12.1 |  Sleep disorders  |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 12.2 |  Sleep disorders  |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 13MW | 13.1 | Alzheimer's disease |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 13.2 | Alzheimer's disease |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
| 14MW | 14.1 |  Epilepsy |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |
|  | 14.2 |  Epilepsy |  Face-to-face simultaneous to Microsoft Teams | Exams, Quizzes |  |
| Final Exam week 15  |

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* Teaching methods include: Synchronous lecturing/meeting/recording
* Evaluation methods include: Homework, Quiz, Exam, in-lecture quiz…etc

**23 Evaluation Methods:**

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

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| **Evaluation Activity** | **Mark** | **Topic(s)** | **Period (Week)** | **Platform** |
|  Midterm Exam |  30 |   |  Week 7 |  On campus |
| Assignment- | 10 | To be assigned  | Weeks 1-7 | MS Teams |
|  Quiz 1 & quiz 2 |  10 |  To be assigned  |  Weeks 1-7 |  MS Teams |
|  Final Exam |  50 |  All Topics |  Week 15 |  On campus |

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**24 Course Requirements (e.g: students should have a computer, internet connection, webcam, account on a specific software/platform…etc):**

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| A computer or smartphone, internet connection, webcam, UJ account to access MS Teams and the UoJ exam platform |

**25 Course Policies:**

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| **A- Attendance policies:**Attendance: Mandatory.First warning – with 4 hr absencesLast warning – with 5 hr absencesFailing in the subject – with 6 hr absences**B- Absences from exams and handing in assignments on time:**Will result in zero achievement unless health report or other significant excuse is documented.**C- Health and safety procedures:** NA**D- Honesty policy regarding cheating, plagiarism, misbehavior:**The participation, the commitment of cheating will lead to applying all following penalties together1) Failing the subject he/she cheated at2) Failing the other subjects taken in the same course3) Not allowed to register for the next semester. The summer semester is not considered as a semester**E- Grading policy:**Mid Exam 30 pointsActivity (exams, quizzes) 20 pointsFinal Exam 50 pointsTotal 100 points |

**26 References:**

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| 1. **Required book (s), assigned reading and audio-visuals:**

1. Pharmacotherapy: A Pathophysiological Approach, ed. DiPiro, 11th edition, 20202. Applied Therapeutics: The Clinical Use of Drugs, ed. Koda-Kimble, 11th edition, 20183. Disease management guidelines (specified in lecture notes) 1. **Recommended books, materials, and media:**
2. Basic & Clinical Pharmacology, ed. Katzung, 15th edition, 2021
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**27 Additional information:**

1. **Assignment (10 marks). Students will be assigned to prepare professional education regarding either: a) a disease not covered in previous or current Therapeutics courses or: b) a medication recently FDA approved. The information should be based on a recent review article from the PubMed and summarized in the form of a power point presentation. c)The third type of assignment is to find a published clinical case related to a disease not covered in previous or current Therapeutics courses, and to attach to the case questions related to the pharmacotherapy of the disease. The assignment topics will be distributed to the students during the first week of the semester.**
2. **Quizzes (5 marks each, total 10 marks). The first quiz will be based on the material taught by Prof. Bulatova and will be arranged to be during the first haf of the semester. The second quiz will be based on the material taught by Prof. Wazaify and will take place in the second half of the semester.**

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| Name of Course Coordinator: Prof. Nailya Bulatova Signature: Date: October, 3, 2021Head of Curriculum Committee/Department: ---------------------------- Signature: --------------------------Head of Department: ------------------------------------------------------------ Signature: -----------------------Head of Curriculum Committee/Faculty: ---------------------------------------- Signature: -------------------Dean: ---------------------------------------------------------- Signature: ----------------------------------------- |