# Syllabus: Pharmacotherapy (2) (#131702566)
# First Semester 2025 /2026

| COURSE INFORMATION | |
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| **Course Name:** Pharmacotherapy (2)<br>**Learning method:** Face-to-face learning<br>**Semester:** First<br>**Department:** Clinical Pharmacy & Pharmacy Practice<br>**Faculty:** Pharmaceutical Sciences | **Course Code:** 131702566<br>**Sections:** 1 - 5<br>**Core Curriculum**: 2019 Study Plan<br>**JNQF Level:** 7 |
| **Day(s) and Time(s):** According to HU courses timetable<br>**Classrooms (All Pharm):** Sec1 (115), Sec2 (206), Sec 3 (207), Sec 4 (115), Sec 5 (115)<br>**Date prepared:** September 2020<br>**Date updated:** Oct 2025 | **Credit Hours:** 3 (Theory)<br>**Prerequisites**: 131702463 or 1917021463 (Pharmacology 3) |

## COURSE DESCRIPTION

This course teaches senior pharmacy students how to *integrate* their background in biomedical and pharmaceutical sciences with pharmacotherapy to make reasonable judgment and *decisions* about patients' care in a *patient-centered* and team-based approach. It helps students to develop and refine their skills in critical thinking and problem-solving to identify and manage medication-related problems for safe, appropriate and cost-effective drug therapy regimens that respect the choice of the patient and enhance adherence. These skills promote students' self-confidence and self-learning and allow them to appreciate the vital role of pharmacists as key healthcare providers for optimal outcomes of patients' health in preparation for the students' professional practice.

Topics that are covered here include infectious diseases, gastrointestinal disorders, anemia, rheumatologic disorders, and other miscellaneous topics. These topics will be discussed based on the knowledge of the pathophysiology, diagnosis, clinical manifestations, risk factors, complications, goals of therapy, and treatment guidelines.

## DELIVERY METHODS

The course will be delivered through a combination of **active learning strategies**. These include:

- PowerPoint lectures and active classroom-based discussion
  Students will be encouraged to participate and be actively involved in the learning process.

Lectures will start with questions to inquire about the students' prior knowledge of the topic. These questions will also be repeated at the end of the lecture to gain insight into the students' competences (to verify whether students have understood the topic). During delivering the lecture presentation, time will be given to allow students to reflect about what they have learnt and think in and discuss some examples of short case studies.

- Relevant films and documentaries
- Video lectures
- E-learning resources: e-reading assignments and practice clinical case studies through Model and/or Microsoft Team

## FACULTY INFORMATION

| | |
|---|---|
| **Name** | **Dr Enaam M. Al Momany** |
| **Academic Title:** | **Assistant Professor** |
| **Office Location:** | **Third Floor** |
| **Telephone Number:** | **Extension: 3433** |
| **Email Address:** | **enaam@hu.edu.jo** |
| **Office Hours:** | **Sunday: 10:00-12:00 & 15:00-16:00**<br>**Monday: 10:30-11:30**<br>**Tuesday: 10:00-12:00 & 15:00-16:00**<br>***Please send an e-mail (enaam@hu.edu.jo) to meet at any other time.*** |
| **Name** | **Dr Tahani Alwidyan** |
| **Academic Title:** | **Assistant Professor** |
| **Office Location:** | **Third Floor** |
| **Telephone Number:** | **Extension: 3414** |
| **Email Address:** | **Alwidyantahani@hu.edu.jo** |
| **Office Hours:** | **Monday: 9.30-10.30 & 1.30-2.30**<br>**Wednesday: 1.30-2.30**<br>***Please send an e-mail (alwidyantahani@hu.edu.jo) to meet at any other time.*** |

## REFERENCES AND LEARNING RESOURCES

**Required Textbook(s):**.

1. Joseph T. DiPiro, Gary C. Yee, L. et al. ***Pharmacotherapy: A Pathophysiologic Approach*** (McGraw Hill: 12e 2023) ISBN-10: 1264264542

2. Stuart T. Haines, Vicki Ellingrod, Thomas D. Nolin. et al. ***Pharmacotherapy: A Pathophysiologic Approach*** (McGraw Hill: 13e 2024) ISBN-10: 1265463980

3. Crees, Zachary; Fritz, Cassandra; Huedebert, Alonso; et al. ***The Washington Manual of Medical Therapeutics*** (Wolters Kluwer: 36 e 2019) ISBN-10: 9388696840

**Additional Resources Suggested**:

4. Marie A. Chisholm-Burns, Terry L. Schwinghammer, Patrick M. Malone et al. ***Pharmacotherapy Principles and Practice*** (McGraw Hill / Medical: 5e 2019) ISBN-10: 1260019446

5. Brian K. Alldredge; Robin L. Corelli; Michael E. Ernst; et al. ***Applied Therapeutics: The Clinical Use of Drugs*** (Wolters Kluwer: 11e 2018) ISBN/ISSN: 9781496318299

6. Roger Walker & Cate Whittlesea Churchill. ***Clinical Pharmacy and Therapeutics*** (Churchill Livingstone: 5 e 2012) ISBN-10: 0702042935

**Useful Web Resources**:

As per each lecture.

## COURSE OBJECTIVES

After course completion students will be able to:

1. Describe and explain the pathophysiology, etiology, diagnosis, risk factors, clinical presentations and complications of the disease processes occurring in the patient.
2. Recognise drugs of choice, alternative therapies, nonpharmacologic and pharmacologic therapy, usual doses and dosage forms, common and serious side effects, clinically significant drug -drug, -food, -disease or -laboratory test interactions, therapeutic and safety monitoring parameters, therapeutic goals and, integration of multiple disease conditions into therapeutic decisions.
3. Integrate and apply knowledge from the basic and clinical sciences courses in the curriculum into the therapeutic decision-making process.
4. Develop appropriate and cost-effective pharmaceutical care plan for their provision of patient-centred care.
5. Identify, analyse, interpret, integrate and evaluate clinical findings to solve patient therapeutic problems.
6. Self-learn how to identify and manage medication-related problems.

## COURSE INTENDED LEARNING OUTCOMES (CILOs)

### A. Foundational Knowledge

A.1 Identify the epidemiology, pathophysiology, etiology, diagnosis, risk factors, clinical features and complications of specified disease processes and the most recent key guidelines and resources available for management of these conditions and how to use them.

A.2 Recognize the rational choice and use of drugs considering benefits versus risks, the concept of patient-oriented care, and the pharmacist role within a team as one of the healthcare providers for the safe and effective use of medications to achieve optimal outcomes of patients' health.

### B. Essentials for Practice and Care

B.1 Solve medication-related problems.

B.2 Analyze information in the scientific literature related to disease management to enhance clinical decision making and impact patient-centered care.

### C. Approach to Practice and Care

C.١ Formulate optimal evidence-based care plans and rational recommendations with patient-centered care that respect the choice of the patient and enhance adherence to treatment.

C.2 Implement research findings in the therapeutic decision-making process ensuring a benefit versus risk assessment of medication use in certain situations and groups of patients for safe, appropriate, and cost-effective therapeutic decisions.

C.3 Recognize clinically significant drug interactions along with the expected common & serious adverse drug reactions & the appropriate action to prevent and/or manage them.

**D. Personal and Professional Development**

D.1 Create effective communication and collaboration with patients, caregivers, peers, and other healthcare providers about management of patients.

D.2 Demonstrate creative decision making when facing novel problems or challenges, and positive self-esteem and confidence when working with others.

## ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

**Special Needs Section:**

**Tel:** **00962-5-3903333 Extension: 4209**
**Location:** **Students Affairs Deanship/ Department of Student Welfare Services**
**Email**: **amalomoush@hu.edu.jo**
**amalomoush@staff.hu.edu.jo**

## COURSE REGULATIONS

***Participation***

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance*. It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

On average, students need to spend 15 hrs of study and preparation weekly. At the beginning of the lectures, students should be on time and should not leave before the end of the lecture without an accepted excuse. **If the student missed a class, it is him/her responsibility to find out about any announcements or assignments they have missed.** For any clarification, students should communicate with their instructor at her posted office hours or by appointment. Students should listen well to the lecture, if anyone has a question, he/she should ask the instructor. Students can find the course material at the course Microsoft team/Model after the lecture.

**It is the students' responsibility to make sure that they are included in the course MS Team from the beginning of the semester (in the first week).**

**Sharing of course materials is forbidden.** No course material including, but not limited to, course outline, lecture hand-outs, videos, exams, and assignments may be shared online or with anyone outside the class. Any suspected unauthorized sharing of materials, will be reported to the university's Legal Affairs Office. If a student violates this restriction, it could lead to student misconduct procedures.

***Plagiarism***

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of The Hashemite University.

Plagiarism includes the following examples, and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

**The instructor has the right to fail the coursework or deduct marks where plagiarism is detected**

***Missed Assessments***

In all cases of assessment, students who fails to attend an exam on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a failure grade for this part of the assessment.

In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with university regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

***Cheating***

Cheating, academic disconduct, fabrication and plagiarism will not be tolerated, and the university policy will be applied. Cheating policy: 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

***Student Complaints Policy***

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

## COURSE ASSESSMENT

***Course Calendar and Assessment***

Students will be graded through the following means of assessment:

**Course Assessment Plan**

| Assessment | Grade Weighting | Deadline Assessment | CILOs | | | |
|---|---|---|---|---|---|---|
| | | | A | B | C | D |
| First Exam | 30% | ~ 6th week | A | B | C | D |
| Second Exam | 30% | ~ 10th week | A | B | C | D |
| Quizzes/ Homework/ Assignments /Projects as formative assessment | --- | During the semester | A | B | C | D |
| Final Exam | 40% | ~ 15th /16th week | A | B | C | D |

**Description of Assessment**

- Formative assessment
  Quizzes, homework, assignments, projects

  Unannounced quizzes will be given during or/and at the end of each chapter based upon the previous lectures. It will enforce that you come prepared to the class.

- Summative assessment:
  Exams
  Test questions will predominately come from **material presented in the lectures** and the **lectures themselves (discussions and clarifications)** in addition to the **first textbook**. Semester

exams may be conducted during the regularly scheduled lecture period. Exams may consist of a combination of multiple choice, short answer, match, true and false, and/or descriptive questions.

No make-up exams will be given. Only documented absences will be considered as per HU guidelines. Make-up exams may be different from regular exams in content and format.

Grades are not negotiable and are awarded according to the following criteria:

| Letter Grade | Description | Grade Points |
|---|---|---|
| A+ | Excellent | 4.00 |
| A | | 3.75 |
| A- | | 3.50 |
| B+ | Very Good | 3.25 |
| B | | 3.00 |
| B- | | 2.75 |
| C+ | Good | 2.50 |
| C | | 2.25 |
| C- | | 2.00 |
| D+ | Pass | 1.75 |
| D | Pass | 1.50 |
| F | Fail | 0.00 |
| I | Incomplete | - |

## WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

***"Lecture hours and weeks are approximate and may change as needed"***

Note: For the 2 lecture periods per week (S/T, M/W), one lecture period covers 1.5 lecture hours (75 minutes). The course content specifies chapters of the textbook that will be included in exams.

**All lectures are delivered by face-to-face learning.**

| Course Content | | | | | |
|---|---|---|---|---|---|
| **Week Number** | **No. of Hours** | **CILOs** | **Subject** | **Delivery Methods** | **Assessment Methods** |
| **1** | **1.5** | A | **Introduction to pharmacotherapy and the course outline** | Active Classroom-Based Discussions | - |
| **1-5** | **13.5**<br><br><br><br>1.5<br>1<br>1<br>1 | A, ,B, C, D | **Infectious Diseases**<br><u>Upper Respiratory Tract Infections</u>:<br>- Pharyngitis<br>- Rhinosinusitis<br>- Otitis Media<br>- Influenza<br><br><u>Lower Respiratory</u> | PowerPoint Lectures<br><br>Active Classroom-Based Discussions<br><br>Relevant Videos<br><br>Practical Clinical Case Scenarios | Exams<br><br>Quizzes<br><br>Homework<br><br>Project |

| | | | | | |
|---|---|---|---|---|---|
| | 1<br>3<br><br><br><br>0.5<br><br>0.5<br><br>1.5<br>1.5<br>1 | | Tract Infections:<br>- Bronchiolitis<br>- Pneumonia<br><br>Urinary Tract Infections:<br>- Symptomatic Abacteriuria<br>- Asymptomatic Bacteriuria<br>- Lower UTIs<br>- Upper UTIs<br>- Prostatitis | | |
| **6-7** | **4.5**<br><br>2<br><br>2.5 | A, B, C, D | **Gastrointestinal Disorders**<br>Peptic Ulcer Disease<br><br>Gastroesophageal Reflux Disease | PowerPoint Lectures<br><br>Active Classroom-Based Discussions<br><br>Relevant Videos<br><br>Practical Clinical Case Scenarios | Exams<br><br>Quizzes<br><br>Homework<br><br>Project |
| **7-8** | **3**<br>0.5<br><br>0.5<br><br>1<br><br><br>0.5<br><br><br>0.5 | A, B, C, D | **Anemia**<br>Iron Deficiency Anemia<br><br>Megaloblastic Anemia<br><br>Anemia of Chronic Disease<br><br>Anemia of Chronic Kidney Disease<br><br>Drug-Induced Anemia | PowerPoint Lectures<br><br>Active Classroom-Based Discussions<br><br>Relevant Videos<br><br>Practical Clinical Case Scenarios | Exams<br><br>Quizzes<br><br>Homework<br><br>Project |
| **8-13** | **15**<br><br>4.5<br><br><br>3<br><br>7.5 | A, B, C,D | **Rheumatologic Disorders**<br>Rheumatoid Arthritis<br><br>Osteoarthritis<br><br>Gout | PowerPoint Lectures<br><br>Active Classroom-Based Discussions<br><br>Relevant Videos<br><br>Practical Clinical Case Scenarios | Exams<br><br>Quizzes<br><br>Homework<br><br>Project |

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| **13** | **1.5** | A, B, C, D | **Geriatrics Pharmacotherapy** | PowerPoint Lectures<br><br>Active Classroom-Based Discussions<br><br>Relevant Videos<br><br>Practical Clinical Case Scenarios | Exams<br><br>Homework<br><br>Project |
| **14** | **1.5** | C, D | **Practical Aspects in CrCl** | Active Classroom-Based Discussions<br><br>Practical Clinical Case Scenarios and Problem-Based Calculations | Exams<br><br>Homework<br><br>Project |
| **14** | **1.5** | A, B, C, D | **Review** | Active Classroom-Based Discussions<br><br>Practical Clinical Case Scenarios and Problem-Based Calculations | - |
| **15** | **-** | | **University Final Exams** | | |

***This course outline was prepared by Dr Enaam M Al Momany and updated by Dr Enaam M Al Momany and Dr Tahani Alwidyan in Oct 2025.***