The Hashemite University



**Faculty of Pharmaceutical Sciences** 



كلية العلوم الصيدلانية

### Syllabus: Community Pharmacy (2) (#131702469) Summer Semester 202... /202...

COURSE INFORMATION							
Course Name: Community Pharmacy (2)	Course Code: 131702469						
Learning method: face-to-face education	Sections: As per semester						
Semester: Summer	Core Curriculum: 2013 &						
Department: Clinical Pharmacy & Pharmacy Practice	2019 Study Plan						
Faculty: Pharmaceutical Sciences	JNQF Level: 7						
Day(s) and Time(s): According to HU course timetable/semester	<b>Credit Hours: 2</b> (Practical)						
Classroom: As per semester	Prerequisites: 131702464						
Date prepared: June 2020	(Pharmacotherapy 1)						
Date updated: November 2024							

#### **COURSE DESCRIPTION**

This course helps pharmacy students identify and understand the role of pharmacists in the community and the hospital at practice sits. In this experiential training program, students spend most of their class and learning time (at least 224 hours) in the practice environment interacting and communicating with pharmacists, technicians, peers, other healthcare providers, and patients. Students develop their skills to integrate their basic pharmaceutical and medical knowledge and apply it into patient care particularly, in the outpatient setting. It also offers students to acquire an understanding of their role in the pharmaceutical care of hospitalized patients with an appreciation of some important hospital-related medications. In addition, students have the opportunity to enhance their communication and interpersonal skills to promote constructive relationships with patients and co-workers including healthcare professionals and develop professional attitude.

#### **DELIVERY METHODS**

The course is delivered through a combination of active learning strategies. These include:

- PowerPoint presentations and active classroom-based discussion.
- Patient education activities, intervention form, quizzes, case-based group discussions and teamwork, dissecting a prescription and students' presentations evaluate the students' understanding and skills.

Students are encouraged to participate and be actively involved in the learning process. The quiz is given every week to gain insight into the students' competences (to verify whether students have

acquired the necessary knowledge and understood the topic). During delivering the presentations, time will be given to allow students to reflect about what they have learnt and think in and discuss examples of case studies, prescriptions and situations they have encountered.

• Relevant films and documentaries

FACULTY INFORMATION						
Name	Dr Enaam M. Al Momany					
	Dr Tahani Alwidyan					
Academic Title:	Assistant Professors					
Office Location:	Third Floor					
<b>Telephone Number:</b>	Extension: 3433 (Enaam)					
	3414 (Tahani)					
Email Address:	enaam@hu.edu.jo					
	alwidyantahani@hu.edu.jo					
Office Hours:	Please send an email to schedule an appointment.					

#### REFERENCES AND LEARNING RESOURCES

#### **<u>Required Textbook(s):</u>**

- 1. Bertram Katzung. *Basic and Clinical Pharmacology* (McGraw Hill / Medical: 14 e 2017) ISBN-10: 1259641155
- Bertram G. Katzung, Marieke Kruidering-Hall, Anthony J. Trevor. *Katzung & Trevor's Pharmacology Examination & Board Review* (McGraw-Hill Education / 12 e 2019) ISBN: 978-1-25-964101-5
- 3. Karen Whalen. *Lippincott Illustrated Reviews: Pharmacology* (Wolters Kluwer/ 6 e 2015) ISBN 978-1-4511-9177-6
- 4. DiPiro J. T., Yee G. C., Posey L. M. et al. *Pharmacotherapy: A Pathophysiologic Approach* (McGraw Hill: 11e 2020) ISBN-10: 1260116816
- 5. Daniel L. Krinsky et al. *Handbook of nonprescription drugs: an interactive approach to self-care* (American Pharmacists Association (APhA): 19 e 2017) ISBN-10: 1582122652
- Beardsley R. S., Kimberlin C. L., Tindall W. N. Communication Skills in Pharmacy Practice: A Practical Guide for Students and Practitioners (Lippincott Williams & Wilkins: 6 e 2011) ISBN-10: 1608316025

#### **Suggested Additional Resources:**

- 7. Marie A. Chisholm-Burns, Terry L. Schwinghammer, Patrick M. Malone et al. *Pharmacotherapy Principles and Practice* (McGraw Hill / Medical: 5e 2019) ISBN-10: 1260019446
- 8. 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

- 9. Roger Walker & Cate Whittlesea Churchill. *Clinical Pharmacy and Therapeutics* (Churchill Livingstone: 5 e 2012) ISBN-10: 0702042935
- 10. Blenkinsopp A., Duerden M., Blenkinsopp J. *Symptoms in the Pharmacy: A Guide to the Management of Common Illnesses* (Wiley-Blackwell: 8 e 2018) ISBN-10: 9781119317968

#### Useful Web Resources:

- 11. The Pharmacists' Patient Care Process (PPCP). Available at https://jcpp.net/patient-care-process/
- 12. Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Hall E., Wodi A.P., Hamborsky J., et al., eds. 14th ed. Washington, D.C. Public Health Foundation, 2021. Available at <u>https://www.cdc.gov/vaccines/pubs/pinkbook/index.html</u>
- 13. Drugs and Lactation Database (LactMed) [Internet]. Bethesda (MD): National Library of Medicine (US); 2006-. Available from <u>https://www.ncbi.nlm.nih.gov/books/NBK501922/?report=classic</u>
- 14. Many drug information sources are now available on website: <u>www.drugs.com</u> <u>www.Elm.Jo</u> <u>www.Patient.info</u>
- 15. Supplementary sources for you to practice are links to videos about objective structured clinical examination (OSCE). OSCE is a form of performance-based testing used to measure candidates' clinical competencies. It is designed to test clinical skill performance and competence such as communication skills with patients or other healthcare providers.
- 16. Many drug information sources are now available on computers and smart phones (Lexicomp, Micromedex and Medscape). These sources have the advantages of being mobile and accessible without internet availability.

#### **Course Objectives\*\***

After course completion students will be able to:

- 1. Understand the role of pharmacists in the ambulatory and hospital care settings.
- 2. Integrate basic pharmaceutical and biomedical knowledge into the therapeutic decisionmaking process.
- 3. Identify any missing information upon receipt of a prescription or medication order.
- 4. Demonstrate familiarity with brand and generic drug names, packaging, manufacturer, drug store, strength, dosage form(s), route of administration and price for the drug classes used to treat conditions covered in this course.
- 5. For any encountered prescription medication, determine whether a generic product is available.
- 6. Demonstrate the ability to process an outpatient prescription completely, accurately and efficiently.
- 7. Accurately and in a timely manner perform calculations used in pharmacy practice.
- 8. Manage medication therapy.
- 9. Communicate appropriate information about medications.
- 10. Display effective communication skills during interactions with patients, coworkers, and other healthcare professionals.
- 11. Display a cheerful, positive attitude about the practice of pharmacy and the ability to problem-solve.
- 12. Distinguish health and wellness services that pharmacists provide.
- 13. Begin to employ strategies in pharmacy practice to ensure patient safety.
- 14. Begin to assist patients or caregivers to obtain prescription medication in an affordable manner that meets their healthcare needs.

#### Course Intended Learning Outcomes\*\* (CILOs)

#### A. Foundational Knowledge

A.1 Illustrate a good understanding of some important community and hospital medications and their roles in patient care.

A.2 Recognize prescriptions for their suitability to the patient's age, weight, diagnosis and other medications to provide appropriate (therapeutic) interventions related to dosing regimens, drug selection, monitoring (safety and efficacy), adverse drug reactions and drug interactions.

#### **B.** Essentials to Practice and Care

B.1 Develop the skills to effectively triage problems, ask appropriate questions, obtain a patient medication profile, respond to symptoms in the community pharmacy through observation, structured questioning (signs & symptoms, drug & medical history) and decision-making to distinguish between minor, self-limiting conditions (suitable for OTC management) and potentially more serious illnesses (require referral).

B.2 Completely, accurately and efficiently perform all steps involved in processing an outpatient prescription (interpretation, selection of product, packaging and labeling).

B.3 Apply accuracy and timeliness in the mathematical computation of ingredient amounts, doses, infusion rates, or any relevant calculation encountered at the practice site.

B.4 Identify the pharmacy workflow and systems in place to prevent errors and recommend methods that could improve existing systems.

#### C. Approach to Practice and Care

C.1 Develop the ability to provide recommendations to healthcare providers, customers, and patients on therapeutic alternatives from the commercial options available based on patient's altered pharmacokinetics, drug interactions, drug-food interactions, adverse drug reactions, cost, patient preference and satisfaction of a treatment

C.2 Show the ability to counsel the patient about basic drug-related information (name of drug, indication, directions, length of use, side effects, storage, missed dose, monitoring) after ascertaining what the patient already knows about the medication.

#### **D.** Personal and Professional Development

D.1 Illustrate creative decision making when facing novel problems or challenges

D.2 Demonstrate the ability to gracefully accept direction and criticism from others even during periods of heavy work volume or other stress-inducing circumstances.

D.3 Display a positive attitude and a willingness to work in a collegial fashion with pharmacists, technicians, and other healthcare practitioners.

\*: Please refer to The Faculty of Pharmaceutical Sciences Web address (<u>https://hu.edu.jo/en/facnew/?unitid=58000000</u>) for the detailed program ILOs (main domains and sub-domains).

\*\*: Some course objectives and ILOs are adapted from: Glass A., and Lancaster M. Introductory Community Pharmacy Experience PHARMP 511–514 Student Syllabus. University of Washington School of Pharmacy. Available from: <u>https://sop.washington.edu/wp-content/uploads/PharmP 511-514 Student Guide.pdf</u>

#### 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 <u>should</u> <u>not miss more than 15%</u> 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 weekly class, students should be on time and should not leave before the end of the class 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 in the class, 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 class.

**Sharing of course materials is <u>forbidden</u>.** 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.

#### <u>The instructor has the right to fail the coursework or deduct marks where plagiarism is</u> <u>detected</u>

#### 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:

Assessment (CILOs)	Grade Weighting	Deadline Assessment
Pharmacist Evaluation (C, D)	5%	At the end of the training period Once/student/semester <b>Deadline:</b>

Weekly Quizzes (A, B, C)	10%	Every week starting from week 3 Once/student/week
Student's Report & Oral Presentation: 1) Commercial content (Filling the commercial table with photos and scanned leaflets) (A, B)	15% (5% on the presentation report & 10% on the ppt presentation): 1) 5% Commercial report: <i>a.</i> 3% (commercial table) + <i>b.</i> 2% (scanning leaflets)	<ol> <li>Required by :</li> <li>a. Once/all weekly groups (5 stds * 4 sections = 20s stds)</li> <li>+</li> <li>b. Once/student/semester (Deadline:)</li> </ol>
<ul> <li>2) Sharing experiences (dissecting a prescription, pharmacy-related info, &amp; MCQs)</li> <li>(Please see appendix 1, 2 &amp; 3) (A, B, C, D)</li> </ul>	<ul> <li>2) Average 10% presentation <ul> <li>a. 10% Commercial</li> <li>content presentation</li> <li>with individualized</li> <li>photos) &amp; case</li> <li>presentation</li> <li>+</li> <li>b. 10% Sharing</li> <li>experiences</li> <li>presentation (5% + 2%+3%)</li> </ul> </li> </ul>	<ul> <li>2) Required by:</li> <li>a. Once/section group/semester</li> <li>+</li> <li>b. Once/student/semester</li> </ul>
Patient Education Activity – Role play (please see appendix 4) (A, B, C, D)	5%	During the semester Once/presenting student/semester
Other Activities: 1) Group-based case discussion (A, B, C, D)	Average: 5% 1) 5% +	1) Once/section group/week
2) Intervention Form - (Please see appendix 5) (A, B, C, D)	2) 5%	2) Once/student/semester <b>Deadline:</b>
Midterm Exam (A, B, C, D)	20%	Once/student/semester: A midterm exam during the 5 <sup>th</sup> week
Final Exam (A, B, C, D)	40%	~ 8 <sup>th</sup> week Once/student/semester

### Description of the Course and Exams

#### ✓ <u>This course is described as follow:</u>

- Students will be trained in their community pharmacy in the summer semester for 8 hours/day and 4 days/week that are predetermined by each student before the beginning of students' training. They have one day/week (3 hours) for discussions and evaluations with their instructor at the university.
- The instructor will meet with all students <u>on the first day of the semester</u> to introduce and clarify all aspects of the course outline including the course requirements and assessments, assign students to groups and sections, assign the required course topics to the students' groups, and answer students' enquires and questions.
- Students are divided into an appropriate number of groups/section.
- Students are expected to be in the pharmacy that they are registered in for the whole duration of their training hours. The instructor checks regularly the attendance of every student in the registered pharmacy physically or by phone. If the student is being missed twice, he/she will be dismissed from the course.
- Students are expected to read and prepare for each week topic before meeting with their instructor at the designated day of the week for topic and case scenario presentations and discussions, patient education and a weekly quiz. They are also expected to review each week related medications (their uses, CIs, DIs, ADRs, monitoring parameters) and familiarize themselves with the generic and trade names, available formulations, strengths, packaging, drug store, manufacturer and cost and keep an eye on them in the pharmacy they are practicing in.
- Meetings with the instructor are scheduled to be at predetermined days according to the students' sections.
- For the oral presentations (Appendix 1, 2, 3):
  - The students/group/section (~ 5 students) are expected to choose a "group leader" from them to coordinate with the other groups' leaders of the other sections about the distribution of their assigned week sub-topics on the groups' members.
  - Students (~ 20 from all sections, ~ 4 from all sections on the same sub-subtopic) from ALL sections that are assigned to prepare the same sub-topic and case (pre-determined case by the course instructor) should coordinate between each other to prepare the seminar report and slides.
  - Every presenting student should have his/her own table of examples/photos from his/her pharmacy, prescription (a good choice and preferably related to the week topic Appendix 2), pharmacy-related option, and experiential learning multiple choice question (MCQ) (Appendix 3) in his/her seminar.

- Students should send their PowerPoint slides to the instructor (at the provided email address) by 20:00 (8:00 pm) two days before their case presentation (e.g. every Sunday for a Tuesday section and every Monday for a Wednesday section).
- The other groups of each section (the students who are not presenting that week) should have one experiential learning MCQ/group/week that they present to the section for exchanging students' experiences.
- Every student in this course should prepare a file of scanned medication leaflets of the medication(s) that assigned to him/her for this purpose at the first two weeks of the course.

#### - For the patient education activity (Appendix 4):

- The groups' leaders of the 4 sections assigned to the same topic will coordinate between each other to submit their choices of the drugs/cases for the patient education activity to the instructor (at the provided email address) two days before their role play activity (e.g. every Sunday for a Tuesday section and every Monday for a Wednesday section).
- Students per group per section should cooperate together to do a role play of patient counselling where one will be the patient and the other the pharmacist or the instructor will play the patient/customer/other healthcare provider role.
- Students per group should choose their drugs which are used for the treatment of the conditions covered in the week they are presenting their topics in. These drugs should be approved by the instructor.
- Each student in the group is required to individualize his/her patient education session to a specific patient (the student provides a brief summary of the patient case which is either real or proposed by them).
- Each group is required to role play the session of education with all students of the group taking participation and no more than 8 minutes/one student. Example, ~ 40 minutes for one group of students (5)/section every week.

#### - For the intervention form (Appendix 5):

- Every student is required to fill in an intervention form according to the PCNE 9.1 classification regarding an encountered medication-related problem during his/her training.
- This intervention for should be signed and stamped from the in-charge pharmacist in the pharmacy.

#### ✓ <u>The exams are described as follow:</u>

- Test questions predominately come from material presented in the class and the class discussions.
- Semester exams may be conducted during the regularly scheduled weekly class period.

- Exams may consist of a combination of multiple choice, short answer, match, true and false, and/or descriptive questions.
- Every student is examined by a <u>midterm exam</u> in all the topics that have been covered in the previous weeks.
- The final exam date is determined by the university.
- The midterm and final exams test students' theoretical knowledge of the topics and skills that were covered and discussed during the course.
- Weekly quizzes are given during the week based upon the previous class material and discussions. It enforces that student comes prepared to the class.
- 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.

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

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

#### WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

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

Note: For the one lecture period per week (T or W), one lecture period covers 2 credit lecture hours (3 actual hours). The course content specifies chapters of the textbook that will be included in exams.

Week	No of	CILOs	Week Topic	Notes	Delivery	Assessment	
No.	Hours				Method	Method	

1	3	A	Students expectations Introduction to the course, its requirements and assessment process.	One lecture for all sections (First day of semester)	PowerPoint Lectures Active Classroom- Based Discussions	Exams Quizzes
2	3	A, B, C, D	GI agents (antidiarrheal, antiemetics, laxatives, ulcer and GERD drugs, aantispasmodics, medications for IBD).		PowerPoint Lectures Active Classroom- Based Discussions Role plays Practical Case Scenarios Reports Exercises	Exams Quizzes Reports Seminars Role play
3	3	A, B, C, D	Part 1 of antimicrobials (all classes of antibacterial agents)		PowerPoint Lectures Active Classroom- Based Discussions Role plays Practical Case Scenarios Reports Exercises	Exams Quizzes Reports Seminars Role play
4	3	A, B, C,	Part 2 of antimicrobials (antifungal		PowerPoint Lectures	Exams Quizzes

		D	agents, antiviral agents, antimycobacterial agents, antiprotozoal agents)		Active Classroom- Based Discussions Role plays Practical Case Scenarios Reports Exercises	Reports Seminars Role play
5	3	A, B, C, D	Dermatological agents & medicated hair shampoos	Mid-term exams: TBC	PowerPoint Lectures Active Classroom- Based Discussions Role plays Practical Case Scenarios Reports Exercises	Exams Quizzes Reports Seminars Role play
6	3	A, B, C, D	Hormone therapy, oral contraceptive and fertility drugs, women health, and baby formulas	2 Topics to be covered during this week	PowerPoint Lectures Active Classroom- Based Discussions Role plays Practical Case Scenarios	Exams Quizzes Reports Seminars Role play

		1	1			
					Reports	
					Evereises	
					Exercises	
6	3	А,	Hospital	:	PowerPoint	Exams
		B,	Pharmacy	deadline for	Lectures	Quinnu
		D,		classwork		Quizzes
		D		assessments	Active	Reports
					Classroom-	a .
					Discussions	Seminars
						Role play
					Role plays	
					Practical	
					Case	
					Scenarios	
					Reports	
					Exercises	
7	2	Δ	Training in		DoworDoint	Exame
/	5	А, В,	community or		Lectures	Exams
		C,	hospital			Quizzes
		D	pharmacy only.		Active	Peports
					Classroom-	Reports
					Based	Seminars
					Discussions	Polo play
					Role plays	Role play
					Role plays	
					Practical	
					Case	
					Scenarios	
					Paparts	
					Reports	
					Exercises	
8		A, B	University final			Final exam
		C,	exam period			
		D				
	GERD, Gastro	ointestinal re	flux disease; GI, Gastrointe	estinal; IBD, idal anti-		
	inflammatory dru	ugs; RA, Rhe				

#### Example of the schematic diagram:

<u>A scher</u>	<u>natic diagrar</u>	<u>n of the topics</u>	<u>s &amp; sections' (</u>	<u>distribution o</u>	<u>f "Communi</u>	<u>ty Pharmacy</u>	<u>2" course – S</u>	<u>Summer 2022</u>
	17/7-21/7	24/7-28/7	31/7-4/8	7/8-11/8	14/8-18/8	21/8-25/8	21/8-25/8	28/8-1/9
	Week 1	Week 2	Week 3	Week 4	Week 5*	Week 6 -	+ Week 6	Week 7
Section 1	ŶŶŶŶŶ	ŶŶŶŶŶ	ŶŶŶŶ	ŶŶŶŶ	ŶŶŶŶ <b>Ŷ</b>	ŶŶŶŶ <b>Ŷ</b>	ŶŶŶŶ <b>Ŷ</b>	ŶŶŶŶŶ
Section 2	ŶŶŶŶ <mark>Ŷ</mark>	ŶŶŶŶ <mark>Ŷ</mark>	ŶŶŶŶ <mark>Ŷ</mark>	ŶŶŶŶ <mark>Ŷ</mark>	<u>ÔÔÔÔÔ</u>	ŶŶŶŶ <mark>Ŷ</mark>	ŶŶŶ <mark>Ŷ</mark>	ŶŶŶ <mark>Ŷ</mark>
Section 3	ŶŶŶŶ <b>Ŷ</b>	ÔÔÔÔÔ	<u>^</u>	<u>^^^</u>	<u>ÔÔÔÔÔ</u>	<u>^</u> ^	ŶŶŶŶ <b>Ŷ</b>	ŶŶŶŶ <b>Ŷ</b>
Section 4	ŶŶŶŶ <mark>Ŷ</mark>			<u><u>ÔÔÔÔ</u></u>	ŶŶŶŶ	<u><u>Ô</u>ÔÔÔ<mark>Ô</mark></u>	ŶŶŶŶ <b>Ŷ</b>	

Course outline created by Dr. Enaam Al Momany on November 2024

### Appendix 1: Oral Presentation Assessment Rubrics

Element (% weight)	Excellent			Satis	sfactory		Needs Iı	nprovement		Point out of 10	Domain's score (Point X (60 X % of domain))/ 10
	9- 10	8	7	6	5	4	3	2	1		
Organization (10%) Slide Design (text, colors, background, illustrations, size, titles, subtitles) (25%)	<ul> <li>There is a log information.</li> <li>Title slide an included app</li> <li>Presentation appealing to and concise too much ir (Lines, font slides used then content)</li> </ul>	d closing s ropriately. n is attract viewers ( did not c formation c, colors, et key words	ence of slide are ive and (Clear ontain , Format tc), The rather rabonsivo	<ul> <li>There sequent</li> <li>Title s slides</li> <li>Preser appeal</li> </ul>	is some logic nce of inform lide and closs are included. tation is som ing to viewer	al ation. ng ewhat 's.	<ul> <li>There is li sequence of</li> <li>Title slide are not inc</li> <li>Little to not to make proviewers.</li> </ul>	ttle or no logi of information and/ or closin cluded. o attempt has resentation ap	cal n. ng slides been made pealing to		
(25%) Content (The opening got my attention, The introduction told me what to expect from the presentation, Clear structure (Introduction, body, conclusion, closing strong final line or idea) (25%)	<ul> <li>Presentation         <ul> <li>Presentation</li> <li>completely</li> <li>(Pharmacol</li> <li>Therapeu</li> <li>algorithm</li> <li>Drug - Di</li> <li>(Drug - f</li> <li>Hits of qu</li> <li>which is a profession</li> <li>Reference</li> </ul> </li> <li>Information is and accurate.</li> </ul>	covers top and in dep ogical rev tic guideli is (if prese rug Interac food, Drug nality infor specialised nal pharm es)	rehensive ric oth iew nes or nt) ctions - tests) rmation, l to acists propriate,	<ul> <li>Preser essent</li> <li>Some somev incorr</li> </ul>	ntation includ ial information information what confusin ect, or flawed	es some n. is g,	<ul> <li>Presentation essential in</li> <li>Information inaccurate</li> </ul>	on includes lit nformation. on is confusin, , or flawed.	ttle g,		
	<ul> <li>Spelling, gr</li> </ul>	ammar, us	age, and	• Ther	e are minor p 16	roblems	• There are	persistent erro	ors in		

Languaga	nunctuation are accurate	in spelling grammar	spelling grammar usage and/or		
Language	punctuation are accurate	in spennig, granniar,	spennig, grannia, usage, and/or		
(400())		usage, and/or punctuation.	punctuation.		
(10%)	<ul> <li>Fluent and effective</li> </ul>				
			<ul> <li>Less or not fluent and effective.</li> </ul>		
<b>Delivery</b> (Engaged	Ideas were communicated with	<ul> <li>There was some difficulty</li> </ul>	<ul> <li>There was great difficulty</li> </ul>		
speaker (relaxed	enthusiasm, proper voice	communicating ideas due	communicating ideas due to poor		
and the voice	projection and clear delivery.	to voice projection, lack of	voice projection, lack of		
[tone, pace,		preparation, incomplete	preparation, incomplete work,		
volume] reflects	There was sufficient eve contact	work. and/or insufficient	and/or little or no eve contact.		
the speaker	with audience.	eve contact.	5		
connection to what			No use of non verbal		
he/she is saving)	There were sufficient use of	Insufficient use of non-	communication skills		
ne/sne is suying).	other non-verbal communication	verbal communication	communication skins.		
	skille	skills	Inappropriate delivery pace was		
	SKIIIS.	SKIIIS.	- mappropriate derivery pace was		
	• A noncomiete delivery page was	Delivery receip comewhat	useu.		
(200/)	- Appropriate derivery pace was	- Derivery pace is somewhat			
(20%)	used (Timing - on time and	appropriate.			
	timing through the whole				
	presentation).				
Interaction with	Answers to questions are	<ul> <li>Most answers to questions</li> </ul>	<ul> <li>Answers to questions are neither</li> </ul>		
Audience	coherent and complete.	are coherent and complete.	coherent nor complete.		
	-	-	-		
(10%)	<ul> <li>Answers demonstrate</li> </ul>	<ul> <li>Answers somehow</li> </ul>	<ul> <li>Is tentative or unclear in</li> </ul>		
	confidence and extensive	demonstrate confidence	responses.		
	knowledge.	and extensive knowledge.	1		
	6		1		
	Total Score = Sum of domain's s	core/ 6			
				1	

**Important note:** students should send their seminar report and powerpoint slides to the instructor (at the email address provided) by 20:00 (8:00 pm) two days before their talk (e.g. every Sunday for Tuesday sections and every Monday for Wednesday sections).

#### **Appendix 2: Commercial Part of the Report and Case Presentation**

1) The commercial part of report: summary tables of medicines available in the community pharmacy or in the hospital pharmacy and contain the active ingredient(s), the trade name or alternatives, the dosage form and the strength(s), the packaging, the drug store, manufacturer, the price, and photos of medicines available in the pharmacy. Rows can be added as required/needed.

Subject:										
Sub-subje	Sub-subject:									
Active Ingredien t	Alternatives (Trade Name)	Strength & Dosage Form	Packaging	Drug Store & Compan y	Price (JD)					
	1.									
	2.									
	3.									
	4.									
	5.									

Tahla 1 Summary	of modicines	availabla	Iordon i	wool number	wool subject.	<b>)</b>
Table 1. Summary	of meancines	available d	jui uan.	( WEEK HUMDEL	week subject	



1	1	1	1

#### 2) Case Presentation

The case is selected by the course instructor.

## <u>Appendix 3: Exchanging Experential Learning Experiences (dissecting a presription, pharmacy-related information, & experential learning MCQ)</u>

1) Dissecting a prescription (a good choice and preferable related to the week medications) from the student's community or hospital pharmacy (one prescription for each student in the group).

Photos of the prescriptions should be in an upright position, clear and all margins are included.

#### Table 3. Dissecting a prescription of the day (reading, analysing, and understanding)

Prescription photo (Make sure to hide the patient's identity and to have a recent date on it i.e., in the previous 7 days)

Patient's informati	Patient's information							
Age:	Ge	ender:	Weight (unde	Weight (under-, normal,				
			over-weight, o	bese):				
Patient's diagnosis	s/complaint(s)							
Patient's comorbid	Patient's comorbidities							
Prescriber specialt	Prescriber specialty							
Prescribed &/or di	spended medicati	ion(s)						
Active	Trade	Dose,	Duration	Drug	Tips for			
ingredient(s	name	dosage		actio	patient			
)		form &		n	education			
		frequenc						
		V						

1.					
2.					
3.					
4.					
Intervention(s) done (if any & clarify if it was done by you (trainee) or the pharmacist-in-charge)					

2) Pharmacy- related information in the student's community or hospital pharmacy (for each student in the group). Information should be clear and related to the student's training pharmacy.

#### Table 4. Pharmacy-related information

Pharmaceuticals arrangement	
Types of records including software	
Equipment and glassware	
References present	

3) Examples of ideas for experiential learning MCQs for the aim of exchanging your training experience:

- How are medications arranged on the shelves? (brand, generic, alphabetical, etc.)
- How often are orders being made? What determines that?
- How much of a medication is ordered at a time? What determines that?
- What do you do if a medication is needed immediately?
- What do you do with expired medications?
- Do you order controlled substances the same way?
- What security measures are in place at the pharmacy? How does the pharmacy prevent drug diversion (Drug diversion, broadly defined, is when the legal supply chain of prescription analgesic drugs is broken, and drugs are transferred from a licit to an illicit channel of distribution or use)?
- What is the legal definition of the following terms? The practice of pharmacy, drug, prescription, dispensing, counselling, controlled drugs
- A prescription must contain the following information:
- Each written prescription issued by a practitioner must have:
- Each electronically transmitted prescription issued by a practitioner must:
- If a prescription for a drug does not indicate a number of refills, how many times can the prescription be refilled?
- In the dispensing of any prescription drug or narcotic, the pharmacist shall affix a label to the drug or narcotic container bearing the following information:
- All controlled substance prescriptions written by licensed practitioners, must contain the following security features:
- Controlled substances prescriptions issued by individual practitioners are considered valid prescriptions if:
- Each time a controlled substance is dispensed, the dispenser shall:
- A certified pharmacy technician may not perform any of the following:

#### Appendix 4: Patient Education (role play) Activity Assessment

Marking criteria	Points (5)
Corrrect information	2
Clear information	1
Comprehencive information	1
Engaged speaker (relaxed and the voice [tone, pace, volume] reflects the speaker connection to what he/she is saying)	1

#### **Intervention Form**

(Based on PCNE 9.1 classification of DRPs)

To be filled out from the case scenarios/prescriptions/issues encountered during your community pharmacy training and after the case being approved by your instructor. Make sure to attache any related prescription(s)/other documents to this fom and to sign it by the pharmacist-in-charge. Please send the completed form to the instructor's e-mail address provided no later than the pre-announced deadline.

a. Please provide a brief description of the case scesnario/issue you encountered during your training in the space below. b. Medication-related problem(s): (1 point) – Table 2 Code of sub-domain: ..... Problem: ..... c. The cause(s): (1 point) – Table 3 Code of sub-domain: ..... Cause: ..... d. The palnned interventions: (1 point) – Table 4 Code of sub-domain: ..... Intervention: ..... e. Acceptance of the interventions: (1 point) – Table 5 Code of sub-domain: ..... Implementation: ..... f. Status of DRP: (1 point) – Table 6 Code of sub-domain: ..... Outcome of intervention: ..... Pharmacist-in-charge signature and the pharmacy stamp: .....

Date: .....

## PCNE (Pharmaceutical Care Network Europe) Classification for Drug-Related Problems V9.1

The current version is V9.1, which has been developed after a validation round and an expert workshop in February 2020.

The classification is for use in research into the nature, prevalence, and incidence of DRPs and also in experimental studies of Pharmaceutical Care outcomes. It is also meant to help health care professionals to document DRP-information in the pharmaceutical care process.

The following is the official PCNE-DRP definition:

"A Drug-Related Problem is an event or circumstance involving drug therapy that actually or potentially interferes with desired health outcomes".

The basic classification  $\rightarrow$  sub-domains as explanatory for the principal domains:

- 1. Problems (3 primary domains)  $\rightarrow$  6 grouped sub domains
- 2. Causes (9 primary domains)  $\rightarrow$  38 grouped sub domains
- 3. Planned Interventions (5 primary domains)  $\rightarrow$  17 grouped sub domains
- 4. Level of acceptance of interventions (3 primary domains)  $\rightarrow$  10 subdomains
- 5. Status of the problem (4 primary domains)  $\rightarrow$  7 sub domains

#### The basic classification

	Code	Primary domains
	V9.1	
Problems	P1	Treatment effectiveness
(also potential)		There is a (potential) problem with the (lack of) effect of
		the pharmacotherapy
	P2	Treatment safety
		Patient suffers, or could suffer, from an adverse drug event
	P3	Other
Causes	C1	Drug selection
(including possible causes		The cause of the DRP can be related to the selection of the
for potential problems)		drug
realized frequency	C2	Drug form
		The cause of the DRP is related to the selection of the drug
		form
	C3	Dose selection
	0.5	The cause of the DRP can be related to the selection of the
		dosage schedule
	C4	Treatment duration
	04	The cause of the DPP is related to the duration of treatment
	C5	Disponsing
	0.5	The serves of the DDD can be related to the logistics of the
		The cause of the DRP can be related to the logistics of the
		prescribing and dispensing process
	Co	Drug use process
		The cause of the DRP is related to the way the patient gets
		the drug administered by a health professional or carer, in
		spite of proper instructions (on the label)
	C7	Patient related
		The cause of the DRP can be related to the patient and his
		behaviour (intentional or non-intentional)
	C8	Patient transfer related
		The cause of the DRP can be related to the transfer of
		patients between primary, secondary and tertiary care, or
		transfer within one care institution.
	C9	Other
<b>Planned Interventions</b>	10	No intervention
	I1	At prescriber level
	I2	At patient level
	I3	At drug level
	I4	Other
Intervention Acceptance	A1	Intervention accepted
<b>r</b>	A2	Intervention not accepted
	A3	Other
Status of the DRP	00	Problem status unknown
Status of the Divi	01	Problem solved
	02	Problem partially solved
	03	Problem not solved
	05	I I UDICHI HUU JUIVEU

Table 2

#### **The Problems**

Primary Domain	Code	Problem
	<b>V9.1</b>	
1.Treatment effectiveness	P1.1	No effect of drug treatment despite correct use
There is a (potential) problem	P1.2	Effect of drug treatment not optimal
with the (lack of) effect of	P1.3	Untreated symptoms or indication
the pharmacotherapy.		
2. Treatment safety Patient suffers, or could suffer, from an adverse drug event. N.B. If there is no specific cause, skip Causes coding.	P2.1	Adverse drug event (possibly) occurring
3. Other	P3.1	Unnecessary drug-treatment
	P3.2	Unclear problem/complaint. Further clarification
		necessary (please use as escape only)

#### Та

abl	able 3				
	The Causes (inc N	<b>luding</b> B. One	possible causes for potential problems)		
	Primary Domain	Code	Cause		
		<b>V9.1</b>			
	1. Drug selection	C1.1	Inappropriate drug according to guidelines/formulary		
	The cause of the (potential)	C1.2	No indication for drug		
	DRP is related to the selection	C1.3	Inappropriate combination of drugs, or drugs and herbal		
	health professional)		medications, or drugs and dietary supplements		
0IJ		C1.4	Inappropriate duplication of therapeutic group or active ingredient		
lecti		C1.5	No or incomplete drug treatment in spite of existing indication		
lg se		C1.6	Too many different drugs/active ingredients prescribed for indication		
dr	2. Drug form	C2.1	Inappropriate drug form/formulation (for this patient)		
S	The cause of the DRP is				
50	related to the selection of the				
bii	arug form	C3 1	Drug dose too low		
cri	The cause of the DRP is	C3.1	Drug dose of a single active ingredient too high		
es.	related to the selection of the	C3.3	Dosage regimen not frequent enough		
Pı	dose or dosage	C3.4	Dosage regimen for frequent		
		C3.5	Dose timing instructions wrong, unclear or missing		
	4. Treatment duration	C4.1	Duration of treatment too short		
	The cause of the DRP is	C4.2	Duration of treatment too long		
	related to the duration of		č		
	5 Dispensing	C5 1	Prescribed drug not available		
	The cause of the DRP is	C5.1	Necessary information not provided or incorrect advice		
Sp	related to the logistics of the	C3.2	provided		
ñ	prescribing and dispensing	C5 3	Wrong drug strength or dosage advised (OTC)		
	process	C5.4	Wrong drug or strength dispensed		
	6 Drug use process	C6 1	Inappropriate timing of administration or dosing intervals		
	The cause of the DRP is	00.1	by a health professional		
	related to the way the patient	C6.2	Drug under-administered by a health professional		
	gets the drug administered by	C6.3	Drug over-administered by a health professional		
	other carer, despite proper	C6.4	Drug not administered at all by a health professional		
	dosage instructions (on	C6.5	Wrong drug administered by a health professional		
	label/list)	C6.6	Drug administered via wrong route by a health		
			professional		
Se	7. Patient related	C7.1	Patient intentionally uses/takes less drug than prescribed or		
	The cause of the DRP is		does not take the drug at all for whatever reason		
	behaviour (intentional or non-	C7.2	Patient uses/takes more drug than prescribed		
	intentional)	C7.3	Patient abuses drug (unregulated overuse)		
		C7.4	Patient decides to use unnecessary drug		
		C7.5	Patient takes food that interacts		
		C7.6	Patient stores drug inappropriately		
		07.7	Inappropriate timing or dosing intervals		
		C/.8	ratient unintentionally administers/uses the drug in a		

wrong way

C9.2

**C8.1** Medication reconciliation problem

Other cause; specify C9.3 No obvious cause

8. Patient transfer

related to the transfer of patients between primary, secondary and tertiary care, or transfer within one care

The cause of the DRP can be

related

institution. 9. Other

Seamles

C7.9 Patient physically unable to use drug/form as directed C7.10 Patient unable to understand instructions properly

**C9.1** No or inappropriate outcome monitoring (incl. TDM)

Table 4

<b>Primary Domain</b>	Code	Intervention
•	<b>V9.1</b>	
No intervention	I0.1	No Intervention
1. At prescriber level	I1.1	Prescriber informed only
	I1.2	Prescriber asked for information
	I1.3	Intervention proposed to prescriber
	I1.4	Intervention discussed with prescriber
2. At patient level	I2.1	Patient (drug) counselling
	I2.2	Written information provided (only)
	I2.3	Patient referred to prescriber
	I2.4	Spoken to family member/caregiver
3. At drug level	I3.1	Drug changed to
	I3.2	Dosage changed to
	I3.3	Formulation changed to
	I3.4	Instructions for use changed to
	<b>I3.5</b>	Drug paused or stopped
	I3.6	Drug started
4. Other intervention or	I4.1	Other intervention (specify)
activity	I4.2	Side effect reported to authorities

#### **The Planned Interventions**

#### N.B. One problem can lead to more interventions

#### Table 5

Acceptance of the Intervention proposals N.B. One status of acceptance per intervention proposal

Primary domain	Code 9.1	Implementation
<b>1. Intervention accepted</b> (by prescriber or patient)	A1.1 A1.2 A1.3 A1.4	Intervention accepted and fully implemented Intervention accepted, partially implemented Intervention accepted but not implemented Intervention accepted, implementation unknown
2. Intervention not accepted (by prescriber or patient)	A2.1 A2.2 A2.3 A2.4	Intervention not accepted: not feasible Intervention not accepted: no agreement Intervention not accepted: other reason (specify) Intervention not accepted: unknown reason
<b>3. Other</b> (no information on acceptance)	A3.1 A3.2	Intervention proposed, acceptance unknown Intervention not proposed

#### Table 6

#### Status of the DRP

N.B. This domain depicts the outcome of the intervention. One problem (or the combination of interventions) can only lead to one level of solving the problem

Primary Domain	Code	Outcome of intervention	
	<b>V9.1</b>		
0. Not known	<b>O0.1</b>	Problem status unknown	
1. Solved	01.1	Problem totally solved	
2. Partially solved	<b>O2.1</b>	Problem partially solved	
3. Not solved	03.1	Problem not solved, lack of cooperation of patient	
	<b>O3.2</b>	Problem not solved, lack of cooperation of prescriber	
	<b>O3.3</b>	Problem not solved, intervention not effective	
	<b>O3.4</b>	No need or possibility to solve problem	

#### Appendix 6

#### The Hashemite University



**Faculty of Pharmaceutical Sciences** 

#### **Hospital Pharmacy Training Punctuality Table**

Student's name:

Student's no.:

Student's section:

Day of student's University weekly lecture:

Hospital name:

Date of hospital training days	Pharmacist in charge name and signature	Time	Any comments per day?		
Training Week 1					
Day 1:					
Day 2:					
Day 3:					
Day 4:					
Day 5:					
Training Week 2					
Day 1:					
Day 2:					
Day 3:					
Day 4:					
Day 5:					

#### Any general comments? Please write in the space below:

Head of Pharmacy Training Unit name and signature:

Date: .....

#### كلية العلوم الصيدلانية