

الجمهورية اليمنية وزارة التعليم العالي والبحث العلمي جامعة ـ صنعاء كلية الصيدلة وحدة ضمان الجودة

# - Course Specification of Pharmaceutical Care (I)

	I. Course Identification a	nd General Inf	ormation:			
1	Course Title:		Pharmace	utical Care	(1)	
2	Course Number & Code:	Ph256				
			С.Н			Total
3	Credit hours: 2hrs	Theoretical	Practical	Training	Seminar	1 Otai
		1	2	-	-	2
	Study level/ semester at	Third year, Fin	rst Semester			
4	which this course is offered:	8				
5	Pre –requisite (if any):					
6	Co –requisite (if any):					
7	Program (s) in which the course is offered:	Bachelor of Pl	harmacy			
	Department (s) in which the	Pharmaceutics and Industrial Pharmacy				
7	•					
	course is offered:					
8	Language of teaching the course:	English				
9	Location of teaching the course:	Faculty of pha	rmacy – San	a'a Universi	ty	
10	Prepared by:	Prof. Dr. Ahm	ed Mohamed	d Sabati		
11	Date of approval:					

## I. Course Description:

This course aims to provide the students with the fundamental aspects of pharmaceutical care and its processes and plans. It focuses on roles of pharmacists and patients, medication review, medication reconciliation, patient interview and communication as well as interprofessional communication









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and drug-related problems and their roles in of pharmaceutical care. The quality control and pharmaceutical care around the World are demonstrated.

### **II.** Intended learning outcomes (ILOs) of the course:

#### At the end of this course, the students will be able to:

- 1. Describe the fundamental aspect and objectives of pharmaceutical care as well as the role of pharmacists in improving health outcomes.
- 2. Demonstrate the professionalism of the Pharmacists in pharmacy practice and their role in identification and prevention or resolving of drug-related problems
- 3. Recognize the different skills for patient interview and communication.
- 4. Describe the role of the patient in the pharmaceutical care process to develop person-centered pharmaceutical care through patient counseling, instructing and increasing health literacy.
- 5. Describe the process of documentation, medication review, medication reconciliation and quality control in pharmaceutical care in reference to pharmaceutical care in some countries.
- 6. Focus on medication reconciliation, review and interprofessional communication as an essential part of pharmaceutical care
- 7. Discuss the quality control in pharmaceutical care including the development and validation of guidelines and protocols used in practice.
- 8. Differentiate and apply different skills for patient interview and communication.
- 9. Explore the pharmaceutical care processes and strategies to optimize medicines use and improve health outcomes.
- 10. Provide patient-oriented pharmaceutical care with other health care practitioner.
- 11. Practice the plan of pharmaceutical care to optimize medicines use and improve health outcomes.
- 12. Employ the relevance and practical utility needed for the implementation of pharmaceutical care at various levels and within different health care systems.
- 13. Perform pharmaceutical care activities such as writing reports, documentation and presentation skills.
- 14. Implement patient interview by applying the communication skills as a part of pharmaceutical care practice.
- 15. Communicate and cooperate effectively with his colleagues and other practitioners in different settings when incorporating pharmaceutical care in their practice.
- 16. Explore and use internet resources to search for up-to-date information in the areas of pharmaceutical care researches to solve emerging problems.

### III. Intended learning outcomes (ILOs) of the course:

## (A) Knowledge and Understanding:









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Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in:  Knowledge and Understanding.				
	Program Intended Learning Outcomes (Sub- PILOs) in: (CILOs) in: Knowledge and Understanding Knowledge and Understanding  After completing this program, students will be able to: After completing this course, students will be able to			in: iderstanding
A1-	Recognize the principles of social, behavioral, health and, pharmaceutical sciences.	a1-	Describe the fundamer objectives of pharmace the role of pharmacists outcomes.	ntal aspect and utical care as well as
A3-	Describe the general cellular, biochemical and physiological aspects of human body and recognize the pharmacokinetics, pharmacodynamics, disease pathophysiology, and pharmacogenetic of therapeutic agents to provide pharmaceutical care and facilitate management of patient's medication, rationalize drug use and overall health needs	a2-	Demonstrate the professionalism of the Pharmacists in pharmacy practice and their role in identification and prevention or resolving of drug-related problems.	
A5	Demonstrate the basic knowledge of pharmacoecnomics, pharmacovigilence,	а3-	Recognize the different skills for patient interview and communication.	
	policy, legislation, marketing, administration and distribution of pharmaceutical and cosmetic products as well as ethics of health care.	a4-	Describe the role of the patient in the pharmaceutical care process to develop person-centered pharmaceutical care through patient counseling, instructing and increasing health literacy.	
		a5-	<del>-  </del>	
	Teaching And Assessment Methods			
Ali	ignment of Learning Outcomes of Knowledge a	ınd Uı Metl		ng and Assessment
Cou	Course Intended Learning Outcomes (CILOs) in Knowledge and Understanding strategies/methods to be used  Methods of assessment			
comp	leting this course, students will be able to:			









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0.1	Describe the fundamental agreet and		Lasturas mathada	Oral Every Ouizzes	
a1-	Describe the fundamental aspect and objectives of pharmaceutical care as well as		Lectures methods, Computer based teaching	Oral Exam, Quizzes, Attendance,	
	the role of pharmacists in improving health		and learning, group	Participation, Short	
	outcomes.		discussion and tutorial	answers, reports,	
-2	Demonstrate the professionalism of the	ऻ`	discussion and tutorial	homework, and	
a2-	Pharmacists in pharmacy practice and their			Written exam.	
	role in identification and prevention or			Witten Chain.	
	resolving of drug-related problems				
a3-	Recognize the different skills for patient				
as-	interview and communication.				
0.4	Describe the role of the patient in the				
a4-	pharmaceutical care process to develop				
	person-centered pharmaceutical care through	,			
	patient counseling, instructing and increasing				
	health literacy.				
a5-	Describe the process of documentation,				
	medication review, medication reconciliation				
	and quality control in pharmaceutical care in	1			
	reference to pharmaceutical care in some				
	countries.				
<b>(B)</b>	Intellectual Skills:				
A	Alignment of Course Intended Learning Outcomes (C			Outcomes (PILOs) in:	
			l skills		
Pr	ogram Intended Learning Outcomes	Co	urse Intended Learning		
	(Sub- PILOs) in Intellectual skills		of Intellectual Skills		
1	completing this program, students will be able	Afte	r completing this course, stud	ents will be able to:	
to:	<del> </del>		In a a	1 1	
B5-	Interpret the prescriptions, patient and	b1-	Explore the pharmaceutica		
	clinical data, Analysis all the		strategies to optimize medi		
	clinical data, Analysis all the encountered pharmaceutical problems		strategies to optimize medi- health outcomes.	cines use and improve	
	clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution,	b2-	strategies to optimize medi health outcomes.  Differentiate and apply dif	cines use and improve ferent skills for patient	
	clinical data, Analysis all the encountered pharmaceutical problems	b2-	strategies to optimize medihealth outcomes.  Differentiate and apply difinterview and communicat	cines use and improve ferent skills for patient ion.	
	clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution,		strategies to optimize medi- health outcomes.  Differentiate and apply dif- interview and communicat Discuss the quality control	ferent skills for patient ion. in pharmaceutical	
	clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution,	b2-	strategies to optimize medi health outcomes.  Differentiate and apply dif interview and communicat Discuss the quality control care including the develop	ferent skills for patient ion. in pharmaceutical ment and validation of	
	clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution,	b2- b3-	strategies to optimize medi- health outcomes.  Differentiate and apply dif- interview and communicat Discuss the quality control care including the develop- guidelines and protocols us	ferent skills for patient ion. in pharmaceutical ment and validation of sed in practice.	
	clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution,	b2-	strategies to optimize medi- health outcomes.  Differentiate and apply dif- interview and communicat Discuss the quality control care including the develop guidelines and protocols us Focus on medication recon-	ferent skills for patient ion. in pharmaceutical ment and validation of sed in practice. ciliation, review and	
	clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution,	b2- b3-	strategies to optimize medi- health outcomes.  Differentiate and apply dif- interview and communicat Discuss the quality control care including the develop- guidelines and protocols us Focus on medication recon- interprofessional communi	ferent skills for patient ion. in pharmaceutical ment and validation of sed in practice. ciliation, review and cation as an essential	
	clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution, to develop the health care.	b2- b3- b4-	strategies to optimize medi- health outcomes.  Differentiate and apply dif- interview and communicat Discuss the quality control care including the develop- guidelines and protocols us Focus on medication recon- interprofessional communi- part of pharmaceutical care	ferent skills for patient ion. in pharmaceutical ment and validation of sed in practice. ciliation, review and cation as an essential	
	clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution,	b2- b3- b4-	strategies to optimize medichealth outcomes.  Differentiate and apply differentiate and communicate and communicate the development of the development of pharmaceutical care including the development of pharmaceutical care or Achieving Learning the development of pharmaceutical care or Achieving Learning the development of pharmaceutical care or Achieving Learning the development of the dev	ferent skills for patient ion. in pharmaceutical ment and validation of sed in practice. ciliation, review and cation as an essential	









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Cou	rse Intended Learning Outcomes (CILOs) in Intellectual Skills.	Teaching strategies/methods to be used	Methods of assessment
After to:	completing this course, students will be able	Lectures methods, Group Discussion, Problem solving	Oral Exam, Quizzes, Attendance,
b1-	Explore the pharmaceutical care processes and strategies to optimize medicines use and improve health outcomes.	sessions, brainstorming and Computer based teaching and learning	Participation, Short answers, reports,
b2-	Differentiate and apply different skills for patient interview and communication.		homework, and Written exam.
b3-	Discuss the quality control in pharmaceutical care including the development and validation of guidelines and protocols used in practice.		
b4-	Focus on medication reconciliation, review and interprofessional communication as an essential part of pharmaceutical care		

<b>(C)</b>	<b>Professional and Practical Skills:</b>				
Aligı	Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Professional and Practical Skills				
	Program Intended Learning Outcomes (Sub- PILOs) in Professional and Practical Skills (CILOs) in Professional and Practical Skills				
After completing this program, students will be able to:		After completing this course, students will be able to			
C4-	Provide patient-oriented pharmaceutical care by collaboration with other health care professionals to optimize therapeutic outcomes.	c1-	Provide patient-oriented pharmaceutical care with other health care practitioner.		
C5-	Conduct research studies and utilize the results in different pharmaceutical fields.	c2-	Practice the plan of pharmaceutical care to optimize medicines use and improve health outcomes.		







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		c3-	needed for the imple pharmaceutical care within different hea	at various levels and lth care systems. tical care activities such as	
A 1:	Teaching And Assessment Methods For Achieving Learning Outcomes:				
Alignment of Learning Outcomes of Professional and Practical Skills to Teaching and Assessment Methods:  Course Intended Learning Outcomes (CILOs) in Professional and Practical Skills  Professional and Practical Skills  Teaching Strategies/methods to be used			Methods of assessment		
After	completing this course, students will be able to:		ctures methods ctical session,	Practical works, homework, practical exam	
c1-	Provide patient-oriented pharmaceutical care with other health care practitioner.	bra	instorming and up discussion	and practical reports.	
c2-	Practice the plan of pharmaceutical care to optimize medicines use and improve health outcomes.				
с3-	Employ the relevance and practical utility needed for the implementation of pharmaceutical care at various levels and within different health care systems.				
c4-	Perform pharmaceutical care activities such as writing reports, documentation and presentation skills.				

<b>(D)</b>	(D) General / Transferable Skills:				
	Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: General and				
	Transferable skills				
Pr	Program Intended Learning Outcomes (PILOs) in		Course Intended Learning Outcomes (CILOs) in		
	General / Transferable skills		General / Transferable skills		
After	completing this program, students will be able to:	Afte	r completing this course, students will be able to:		
D1-	Practice independent learning needed for continuous	d1-			
			communication skills as a part of pharmaceutical		









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D4	Take responsibility for adaptation to change needs in pharmacy practice.	d2	Communicate and cooperacolleagues and other pracsettings when incorpora in their practice.	•
D5-	Apply information and communication technology and working effectively in a team.	d3		esources to search for up-to- eas of pharmaceutical care ing problems.
	Teaching And Assessment Metho			
Alignment of Learning Outcomes of General and Transferable skills to Teaching and Assessment Metho				
	ourse Intended Learning Outcomes (CILOs) in General and Transferable Skills	1 ea	ching strategies/methods to be used	Methods of assessment
After	r completing this course, students will be able to:		all group discussions, orials and Practical	Homework and reports.
d1-	Implement patient interview by applying the communication skills as a part of pharmaceutical care practice.	sess	sion	
d2	Communicate and cooperate effectively with his colleagues and other practitioners in different settings when incorporating pharmaceutical care in their practice.			
d3	Explore and use internet resources to search for up-to- date information in the areas of pharmaceutical care researches to solve emerging problems.			









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### **IV.** Course Content:

## 1 – Course Topics/Items:

### a – Theoretical Aspect

Orde r	Topic List / Units	CILOs (symbols)	No. of /week	No. of Hours
1	Definition of Pharmaceutical Care and Related Concepts	a1, b1, d2-3	1	1
2	Pharmaceutical Care and the Role of Drug-Related Problems, Professionalism of the Pharmacists	a2, b2, d2-3	1	1
3	Pharmaceutical Care Processes, The general role of the pharmacist  Pharmaceutical Care and the Role of the Patient	a1, a4, b1-3, d2-3	1	1
4	Pharmaceutical Care and Patient Counseling	a4, b1-3, d1-3	1	1
5	Patient interview and communication skills	a3, b2, d1-3	1	1
6	The Role of Inter professional Communication in Pharmaceutical Care	a3, b4, d1-3	1	1
7	Mid Term Exam	a1-4, b1-4	1	
8	Medication Review and Medication Reconciliation, Data collection, Problem History analysis	a5, b4, d1-3	1	1
9	Documenting Pharmaceutical Care, Patient information analysis	a5, b2, d1-3	1	1
10	Quality Control in Pharmaceutical Care: Guidelines and Protocols	a5, b3, d1-3	1	1









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1	11	The Role of Core Outcome Sets for Pharmaceutical Care Research	a1, b3, d1-3	1	1
1	12	Pharmaceutical Care Around the World	a5, b3, d1-3	4	4
1	13	Final Term Exam	a1-5, b1-b4,	1	1
	Number of Weeks /and Units Per Semester				

### **I.** Course Content:

### 1 – Course Topics/Items:

### **b** – Practical Aspect

Order	Practical Task	CILOs (symbols)	No. of /week	No. of Hours
	Introduction to care planning, observation,			
1	discussion and reflection on pharmaceutical care	c1-c4,d1-d3	1	2
	practice			
	Report: Care planning, observation, discussion,	c1-c4,d1-d3	1	2
2	and reflection on the role of Drug-Related			
	Problems in pharmaceutical care practice.			
	Report: Care planning, observation, discussion,	c1-c2,d1-d3	1	2
3	and reflection on pharmaceutical care practice -			
	Pharmaceutical Care and the Role of the Patient			
	Report: Care planning, observation, discussion,		1	2
4	and reflection on pharmaceutical care practice -	c1-c4,d1-d3		
	Pharmaceutical Care and Patient Counseling			



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5	Report: Care planning, observation, discussion, and reflection on pharmaceutical care practice -	c1-c4,d1-d3	1	2
3	The Role of Adherence in Pharmaceutical Care			_
	Report: Care planning, observation, discussion, and reflection on pharmaceutical care practice -		1	
6	The Role of Interprofessional Communication	c1-c4,d1-d3		2
	in Pharmaceutical Care			
	Report: Care planning, observation, discussion,		1	2
7	and reflection on pharmaceutical care practice -	c1-c4,d1-d3		
,	Medication Review and Medication	C1-C4,u1-u3		
	Reconciliation			
8	Mid Term Exam	c1-c4,d1-d3	1	2
	Report: Care planning, observation, discussion,	c1-c4,d1-d3	1	2
9	and reflection on pharmaceutical care practice -			
	Documenting Pharmaceutical Care			
	Report: Care planning, observation, discussion,		1	2
10	and reflection on pharmaceutical care practice -	c1-c4,d1-d3		
10	Quality Control in Pharmaceutical Care:	C1-04,u1-u3		
	Guidelines and Protocols			
	Report: Care planning, observation, discussion,	c1-c4,d1-d3	1	2
11	and reflection on pharmaceutical care practice -			
11	The Role of Core Outcome Sets for			
	Pharmaceutical Care Research			



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13	Number of Weeks /and Units Per Semester			32
13	Final Term Exam	c1-c4,d1-d3	1	2
12	Report: Care planning, observation, discussion, and reflection on pharmaceutical care practice - Pharmaceutical Care Around the World	c1-c4,d1-d3	4	8

## I- Teaching Strategies of the Course:

Lectures using data show video animation, brainstorming, case study, Practice session, Discussions, Small group discussions, Tutorials and Practical classes

## **II-** Assignments:

- Homework
- Reports

II	III- Schedule of Assessment Tasks for Students During the Semester:						
No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes (CILOs symbols)		
1	Attendance, Participation, reports and quizzes	All Weeks	5	5%	a1,a3 ,b1,b4, d1-3		
	Oral Tests and Homework- assignments	Sporadic through the semester	5	5%	a2, a4, a5, b1-3, d1-3		









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2	Attendance, Practical Reports and Practical mid-semester exam	8 <sup>th</sup>	30	30%	c1-4, d1-3
3	Theoretical mid-semester exam	$7^{\mathrm{th}}$	20	20%	a1-3, b1, b2
5	Final Exam (theoretical)	16 <sup>th</sup>	30	30%	a1-5, b1-4
6	Final Exam (practical)	16 <sup>th</sup>	20	20%	c1-4, d1-3
	Total		100	100%	

II. Students' Support:	
Office Hours/week	Other Procedures (if any)
2 hours	-

III. Learning Resource (MLA style or APA style)S:				
1- Required Textbook(s) ( maximum two )				
Filipa Alves da Costa, J. W. Foppe Van Mil and Aldo Alvarez-Risco, (2019), The				
Pharmacist Guide to Implementing Pharmaceutical Care, Springer, Switzerland.				
2- Recommended Readings and Reference Materials				
Cipolle RJ, Strand LM, Morley PC (2007), Pharmaceutical care practice: the clinician's				
guide, 2 <sup>nd</sup> edition, McGraw-Hill, New York.				
3- Essential References				
Course notes (lecture notes and practical notes) prepared by teacher of the subject.				
4- Electronic Materials and Web Sites etc.				
Websites in international network (internet				
5- Other Learning Material:				

# IV- Facilities Required:









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1 - Accommodation:	<ul> <li>Well-equipped lecture halls with data show facilities, whiteboards, net connection, etc.</li> <li>Well-equipped laboratories with all required equipment and reagents.</li> </ul>
2 - Computing resources:	- Computer laboratory with internet facilities.

### V- Course Improvement Processes:

#### 1- Strategies for obtaining student feedback on effectiveness of teaching

- Student-based assessment of the effectiveness of teaching using a questionnaire designed by the Quality Assurance Unit at the end of the semester.
- Meeting with students and faculty (once per semester).

### 2- Other strategies for evaluation of teaching by the instructor or by the department.

- Assessment of the course syllabus and contents by the teachers using a questionnaire designed by the Quality Assurance Unit of the university at the end of the semester.
- Regular meeting and discussion of the course content between the Head of Department and the teaching staff of the course (for theory and practice).

#### 3- Processes for improvement of teaching.

- Revision of the course specification and its teaching strategies every three academic years
  after consideration of all issues raised by the teachers and/or students during regular
  meetings and discussions.
- Exploring any possible defects in the course that might be encountered by the teaching staff and their mitigation in subsequent improved versions of course specification.

#### 4- Processes for Verifying Standards Of Students' Achievement

- Checking of a sample of students' work by an independent faculty member.
- Periodic exchange and check marking of a sample of students' assignments with a faculty member from another institution.
- Adoption of scoring rubrics to assess the students' achievement (both for ongoing or summative assessments).
- Regular follow-up of laboratory logbooks to assess the practical achievement of students.









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# 5- Procedures for Periodically Reviewing Of Course Effectiveness and Planning for Improvement

- Student rating and feedback
- Peer rating and feedback
- Regular meeting of the Curriculum Committee of the faculty.

#### 6- Course Development Plans

- Conducting regular workshops for the staff for improving their course specification skills.
- Regular revision of course specification and syllabus items.

### VI- Course Policies: (including plagiarism, academic honesty, attendance etc)

The University Regulations on academic misconduct will be strictly enforced. Please refer to -----

#### Class Attendance:

- Attendance in all lectures and practical classes are required, except in very emergency circumstances, such as serious illness or death in the family with providing an acceptable documentation approved the university and forwarded by the chairman of the department. Otherwise the absence shall be considered unexcused.

-In accordance with the university rules, if the percentage of student's absentness exceeds 25 % of the total lectures or practical classes, the student involved shall be disqualified in the final written and practical examination of the course and shall be deemed to have failed in the course.

# Tardy:

3

- Roll will be called in the very beginning of each lecture and practical class. Retardation for more than three weeks without a reasonable excursion, the student involved shall not be allowed to attend the class any longer and consequently shall be considered to be absent.

#### **Exam Attendance/Punctuality:**

- It is incumbent on student to report at the examination hall for checking in and rolls calling at least 15 minutes before the commencement of examination.









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-A student is not allowed to submit answer booklet and leave the examination hall only on or after the passage of the have examination duration (equivalent to the first one hour after the commencement of the examination).

-A student who comes late shall not be admitted to the examination hall, only within the first one hour of the examination. Attending after this time, the student will be considered to be missed in the examination and shall be deemed to have failed in the course.

When a student misses the final examination due to a legitimate medical problems or death in the family, an acceptable documentation approved by the university medical unit for the excused absentness (hospitals medical reports along with discharge summaries or death certificate) must be provided no later than three weeks and consequently the student shall be disqualified in the examination but with the excused absentness.

### Assignments & Projects:

- Micro-assignments and practical reports must be submitted for the assessment on or before the due date. If a student does not submit the micro-assignments or practical reports, the student shall be allotted zero marks which will affect the final assessment of the course.
- -The submission date extension will not be granted only by the consent of the faculty member concerned.

In the case of late submission, the student must provide a reasonable explanation to the faculty member. Otherwise 1% of the obtained marks will be subtracted for each late day, including weekends and holidays.

#### **Cheating:**

4

5

6

-If a student is found cheating in the final and med-term examinations and quizzes(copying from un authorized materials and anther students' work or allowing other students to copy from his/her own work), the student involved shall be disqualified in the examination and shall be deemed to have failed in the course and also suspended from examinations of two more courses.

If a student if found engaging in any unauthorized communications (oral,sign,call,etc.), while the examination is in progress or in possessing of any authorized materials or electronic devices before the distribution of examination papers , the student involved shall be disqualified in the examination and shall be deemed to have failed the course.

### Plagiarism:

- Plagiarism is the presentation of any material (text, data or figures) from any other source in preparation of micro-assignments or practical reports without clear and adequate acknowledgement of the source.
- Plagiarism is also the use or copy of other students' work (with, or without payment) to prepare all or part of undertaken micro-assignments or practical reports of work submitted for assessment.

All types of plagiarism in are unacceptable and are considered of honest practices. If a student is found using plagiarism in devoted micro-assignments or reports, the student involved shall be subjected to the









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same penalties as in the case of cheating as already mentioned in the sub-section (5) of the course policies.

# 7 Other policies:

- Students must switch off their mobile phones, labtops, electronic devices etc. before entering lecture room or laboratory. If a student is found using these devices while the lecture or practical work is in progress, the student involved shall be expelled out of the class and shall be considered to be absent.

Note that students can submit their micro-assignments or practical reports through the e-mail address of the faculty member concerned and should be prudent to keep Photostat or electronic copies of submitted works to guard against an accidental loss.









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### Course Plan of Pharmaceutical Care (I)

I- Information about Faculty Member Responsible for the Course:							
Name of Faculty Member	Prof. Dr. Ahmed Mohamed Sabati	Office Hours					
Location & Telephone No.		SAT	SUN	MON	TUE	WED	THU
E-mail							

I	II- Course Identification and General Information:					
1-	Course Title:	Pharmaceutical Care (I)				
2-	Course Number & Code:	Ph256				
			C.I	1		Total
3-	Credit hours:	Th.	Seminar	Pr.	F. Tr.	Total
		1	-	2		2
4-	Study level/year at which this course is offered:	Third year, First Semester				
5-	Pre –requisite (if any):					
6-	Co –requisite (if any):	-				
7-	Program (s) in which the course is offered	Bachelor of Pharmacy				
8-	Language of teaching the course:	English	l			
9-	System of Study:	Semesters				
10-	Mode of delivery:	Regular				
11-	Location of teaching the course:	Faculty	of Pharmacy	y- Sana`a	university	<i></i>

## **III- Course Description:**

This course aims to provide the students with the fundamental aspects of pharmaceutical care and its processes and plans. It focuses on roles of pharmacists and patients, medication review, medication reconciliation, patient interview and communication as well as interprofessional communication and drug-related problems and their roles in of pharmaceutical care. The quality control and pharmaceutical care around the World are demonstrated.









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### IV- Intended learning outcomes (ILOs) of the course:

#### At the end of this course, the students will be able to:

- 1. Describe the fundamental aspect and objectives of pharmaceutical care as well as the role of pharmacists in improving health outcomes.
- 2. Demonstrate the professionalism of the Pharmacists in pharmacy practice and their role in identification and prevention or resolving of drug-related problems
- 3. Recognize the different skills for patient interview and communication.
- 4. Describe the role of the patient in the pharmaceutical care process to develop person-centered pharmaceutical care through patient counseling, instructing and increasing health literacy.
- 5. Describe the process of documentation, medication review, medication reconciliation and quality control in pharmaceutical care in reference to pharmaceutical care in some countries.
- 6. Focus on medication reconciliation, review and interprofessional communication as an essential part of pharmaceutical care
- 7. Discuss the quality control in pharmaceutical care including the development and validation of guidelines and protocols used in practice.
- 8. Differentiate and apply different skills for patient interview and communication.
- 9. Explore the pharmaceutical care processes and strategies to optimize medicines use and improve health outcomes.
- 10. Provide patient-oriented pharmaceutical care with other health care practitioner.
- 11. Practice the plan of pharmaceutical care to optimize medicines use and improve health outcomes.
- 12. Employ the relevance and practical utility needed for the implementation of pharmaceutical care at various levels and within different health care systems.
- 13. Perform pharmaceutical care activities such as writing reports, documentation and presentation skills.
- 14. Implement patient interview by applying the communication skills as a part of pharmaceutical care practice.
- 15. Communicate and cooperate effectively with his colleagues and other practitioners in different settings when incorporating pharmaceutical care in their practice.
- 16. Explore and use internet resources to search for up-to-date information in the areas of pharmaceutical care researches to solve emerging problems.









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### **IV.** Course Content:

### 1 – Course Topics/Items:

### a – Theoretical Aspect

Orde r	Topic List / Units	CILOs (symbols)	Week Due	No. of Hours
1	Definition of Pharmaceutical Care and Related Concepts	a1, b1, d2-3	1	1
2	Pharmaceutical Care and the Role of Drug-Related Problems, Professionalism of the Pharmacists	a2, b2, d2-3	2	1
3	Pharmaceutical Care Processes, The general role of the pharmacist  Pharmaceutical Care and the Role of the Patient	a1, a4, b1-3, d2-3	3	1
4	Pharmaceutical Care and Patient Counseling	a4, b1-3, d1-3	4	1
5	Patient interview and communication skills	a3, b2, d1-3	5	1
6	The Role of Inter professional Communication in Pharmaceutical Care	a3, b4, d1-3	6	1
7	Mid Term Exam	a1-4, b1-4	7	
8	Medication Review and Medication Reconciliation, Data collection, Problem History analysis	a5, b4, d1-3	8	1
9	Documenting Pharmaceutical Care, Patient information analysis	a5, b2, d1-3	9	1
10	Quality Control in Pharmaceutical Care: Guidelines and Protocols	a5, b3, d1-3	10	1
11	The Role of Core Outcome Sets for Pharmaceutical Care Research	a1, b3, d1-3	11	1









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12	Pharmaceutical Care Around the World	a5, b3, d1-3	12- 15	4
13	Final Term Exam	a1-5, b1-b4,	16	1
	Number of Weeks /and Units Per Semester			16

### V. Course Content:

### 1 – Course Topics/Items:

### **b** – Practical Aspect

Order	Practical Task	CILOs (symbols)	Week Due	No. of Hours
1	Introduction to care planning, observation, discussion and reflection on pharmaceutical care practice	c1-c4,d1-d3	1	2
2	Report: Care planning, observation, discussion, and reflection on the role of Drug-Related Problems in pharmaceutical care practice.	c1-c4,d1-d3	2	2
3	Report: Care planning, observation, discussion, and reflection on pharmaceutical care practice - Pharmaceutical Care and the Role of the Patient	c1-c2,d1-d3	3	2
4	Report: Care planning, observation, discussion, and reflection on pharmaceutical care practice - Pharmaceutical Care and Patient Counseling	c1-c4,d1-d3	4	2



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	Report: Care planning, observation, discussion,	c1-c4,d1-d3	5	
5	and reflection on pharmaceutical care practice -			2
	The Role of Adherence in Pharmaceutical Care			
	Report: Care planning, observation, discussion,		6	
6	and reflection on pharmaceutical care practice - The Role of Interprofessional Communication	c1-c4,d1-d3		2
	in Pharmaceutical Care			
	Report: Care planning, observation, discussion,		7	2
	and reflection on pharmaceutical care practice -		,	2
7	Medication Review and Medication	c1-c4,d1-d3		
	Reconciliation			
8	Mid Term Exam	c1-c4,d1-d3	8	2
8	Report: Care planning, observation, discussion,	c1-c4,d1-d3	9	2
	and reflection on pharmaceutical care practice -	C1-C4, G1-G3		2
9	Documenting Pharmaceutical Care			
	Report: Care planning, observation, discussion,		10	2
	and reflection on pharmaceutical care practice -		10	2
10	Quality Control in Pharmaceutical Care:	c1-c4,d1-d3		
	Guidelines and Protocols			
	Report: Care planning, observation, discussion,	c1-c4,d1-d3	11	2
	and reflection on pharmaceutical care practice -	C1-C4,u1-u3	11	<i>L</i>
11	The Role of Core Outcome Sets for			
	Pharmaceutical Care Research			
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İ	Number of Weeks /and Units Per Semester				32
Ī	13	Final Term Exam	c1-c4,d1-d3	16	2
	12	and reflection on pharmaceutical care practice - Pharmaceutical Care Around the World	c1-c4,d1-d3	12-13	o
Ī		Report: Care planning, observation, discussion,		12-15	Q

#### **Teaching strategies of the course:** VI.

Lectures using data show video animation, brainstorming, case study, Practice session, Discussions, Small group discussions, Tutorials and Practical classes

#### VII. **Assignments:**

reports and quizzes

assignments

**Oral Tests and Homework-**

- Homework
- Reports

VIII	I. Schedule of Assessme Semester:	Schedule of Assessment Tasks for Students During the Semester:			
No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes (CILOs symbols)
1	Attendance, Participation,	All	5	5%	a1,a3 ,b1,b4, d1-3

Weeks

Sporadic

through

the semester 5

5%

a2, a4, a5, b1-3, d1-3









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2	Attendance, Practical Reports and Practical mid-semester exam	8 <sup>th</sup>	30	30%	c1-4, d1-3
3	Theoretical mid-semester exam	$7^{\mathrm{th}}$	20	20%	a1-3, b1, b2
5	Final Exam (theoretical)	16 <sup>th</sup>	30	30%	a1-5, b1-4
6	Final Exam (practical)	16 <sup>th</sup>	20	20%	c1-4, d1-3
	Total		100	100%	

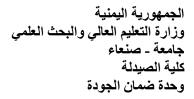
IX. Students' Support:	
Office Hours/week	Other Procedures (if any)
2 hours	-

X. Learning Resource (MLA style or APA style)8:				
6- Required Textbook(s) ( maximum two )				
Filipa Alves da Costa, J. W. Foppe Van Mil and Aldo Alvarez-Risco, (2019), The				
Pharmacist Guide to Implementing Pharmaceutical Care, Springer, Switzerland.				
7- Recommended Readings and Reference Materials				
Cipolle RJ, Strand LM, Morley PC (2007), Pharmaceutical care practice: the clinician's				
guide, 2 <sup>nd</sup> edition, McGraw-Hill, New York.				
8- Essential References				
Course notes (lecture notes and practical notes) prepared by teacher of the subject.				
9- Electronic Materials and Web Sites etc.				
Websites in international network (internet				
10- Other Learning Material:				

XI. Facilities Required:				
1 - Accommodation:	- Well-equipped lecture halls with data show facilities, whiteboards, net connection, etc.			







	- Well-equipped laboratories with all required equipment and reagents.
3 - Computing resources:	- Computer laboratory with internet facilities.

### **XII.** Course Improvement Processes:

#### 6- Strategies for obtaining student feedback on effectiveness of teaching

- Student-based assessment of the effectiveness of teaching using a questionnaire designed by the Quality Assurance Unit at the end of the semester.
- Meeting with students and faculty (once per semester).

### 7- Other strategies for evaluation of teaching by the instructor or by the department.

- Assessment of the course syllabus and contents by the teachers using a questionnaire designed by the Quality Assurance Unit of the university at the end of the semester.
- Regular meeting and discussion of the course content between the Head of Department and the teaching staff of the course (for theory and practice).

### 8- Processes for Improvement Of Teaching.

- Revision of the course specification and its teaching strategies every three academic years
  after consideration of all issues raised by the teachers and/or students during regular
  meetings and discussions.
- Exploring any possible defects in the course that might be encountered by the teaching staff and their mitigation in subsequent improved versions of course specification.

#### 9- Processes for Verifying Standards Of Students' Achievement

- Checking of a sample of students' work by an independent faculty member.
- Periodic exchange and check marking of a sample of students' assignments with a faculty member from another institution.
- Adoption of scoring rubrics to assess the students' achievement (both for ongoing or summative assessments).
- Regular follow-up of laboratory logbooks to assess the practical achievement of students.









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### 10- Procedures for periodically reviewing of course effectiveness and planning for **improvement**

- Student rating and feedback
- Peer rating and feedback
- Regular meeting of the Curriculum Committee of the faculty.

#### **Course Development Plans**

- Conducting regular workshops for the staff for improving their course specification skills.
- Regular revision of course specification and syllabus items.

#### XIII. Course Policies: (including plagiarism, academic honesty, attendance etc)

The University Regulations on academic misconduct will be strictly enforced. Please refer to --

#### **Class Attendance:**

- Attendance in all lectures and practical classes are required, except in very emergency circumstances, such as serious illness or death in the family with providing an acceptable documentation approved the university and forwarded by the chairman of the department. Otherwise the absence shall be considered unexcused.
- -In accordance with the university rules, if the percentage of student's absentness exceeds 25 % of the total lectures or practical classes, the student involved shall be disqualified in the final written and practical examination of the course and shall be deemed to have failed in the course.

#### Tardy: 2

1

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- Roll will be called in the very beginning of each lecture and practical class. Retardation for more than three weeks without a reasonable excursion, the student involved shall not be allowed to attend the class any longer and consequently shall be considered to be absent.

### **Exam Attendance/Punctuality:**

- It is incumbent on student to report at the examination hall for checking in and rolls calling at least 15 minutes before the commencement of examination.









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-A student is not allowed to submit answer booklet and leave the examination hall only on or after the passage of the have examination duration (equivalent to the first one hour after the commencement of the examination).

-A student who comes late shall not be admitted to the examination hall, only within the first one hour of the examination. Attending after this time, the student will be considered to be missed in the examination and shall be deemed to have failed in the course.

When a student misses the final examination due to a legitimate medical problems or death in the family, an acceptable documentation approved by the university medical unit for the excused absentness (hospitals medical reports along with discharge summaries or death certificate) must be provided no later than three weeks and consequently the student shall be disqualified in the examination but with the excused absentness.

### Assignments & Projects:

- Micro-assignments and practical reports must be submitted for the assessment on or before the due date. If a student does not submit the micro-assignments or practical reports, the student shall be allotted zero marks which will affect the final assessment of the course.
- -The submission date extension will not be granted only by the consent of the faculty member concerned.

In the case of late submission, the student must provide a reasonable explanation to the faculty member. Otherwise 1% of the obtained marks will be subtracted for each late day, including weekends and holidays.

#### **Cheating:**

4

5

6

-If a student is found cheating in the final and med-term examinations and quizzes(copying from un authorized materials and anther students' work or allowing other students to copy from his/her own work), the student involved shall be disqualified in the examination and shall be deemed to have failed in the course and also suspended from examinations of two more courses.

If a student if found engaging in any unauthorized communications (oral,sign,call,etc.), while the examination is in progress or in possessing of any authorized materials or electronic devices before the distribution of examination papers , the student involved shall be disqualified in the examination and shall be deemed to have failed the course.

### Plagiarism:

- Plagiarism is the presentation of any material (text, data or figures) from any other source in preparation of micro-assignments or practical reports without clear and adequate acknowledgement of the source.
- Plagiarism is also the use or copy of other students' work (with, or without payment) to prepare all or part of undertaken micro-assignments or practical reports of work submitted for assessment.

All types of plagiarism in are unacceptable and are considered of honest practices. If a student is found using plagiarism in devoted micro-assignments or reports, the student involved shall be subjected to the









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same penalties as in the case of cheating as already mentioned in the sub-section (5) of the course policies.

# 7 Other policies:

- Students must switch off their mobile phones, labtops, electronic devices etc. before entering lecture room or laboratory. If a student is found using these devices while the lecture or practical work is in progress, the student involved shall be expelled out of the class and shall be considered to be absent.

Note that students can submit their micro-assignments or practical reports through the e-mail address of the faculty member concerned and should be prudent to keep Photostat or electronic copies of submitted works to guard against an accidental loss.