

**Republic of Yemen**

Ministry of Higher Education & Scientific Research  
University of Modern Sciences  
Faculty of Medical Sciences  
Department of Pharmacy



جامعة العلوم الحديثة  
University of Modern Sciences

الجمهورية اليمنية  
وزارة التعليم العالي و البحث العلمي  
جامعة العلوم الحديثة  
كلية العلوم الطبية  
قسم الصيدلة

## Course Specification

# التدريب الميداني

Pharmacy Training (I) & (II)  
2019



## PHARMACY TRAINING I

I. Course Identification and General Information:						
1.	Course Title:	PHARMACY TRAINING I				
2.	Course Code &Number:	PHPP 517				
3.	Credit hours:	C.H				TOTAL
		Theoretical			P.	
		L.	Tut.	S.		
		-	-	-	-	3*
4.	Study level/ semester at which this course is offered:	( FIFTH ) Year – ( 1 <sup>ST</sup> ) semester				
5.	Pre –requisite (if any):	<ul style="list-style-type: none"> <li>• Pharmaceutics I, II &amp; III</li> <li>• Pharmacology I &amp; II &amp; III</li> <li>• Community pharmacy I, II</li> </ul>				
6.	Co –requisite (if any):	<ul style="list-style-type: none"> <li>• Pharmacoeconomics and pharmacoepidemiology</li> </ul>				
7.	Program (s) in which the course is offered:	All BC programs offered by the university				
8.	Language of teaching the course:	ENGLISH				
9.	Location of teaching the course:	IN THE UNIVERSITY				
10	Prepared by	Dr/ Anes A. M. Thabit				
11	Date of Approval	8/2019				

L: lecturing ; Tut: Tutorial , S: seminar ; P: practical ; Tr.: training  
\*: 3 credit hrs are equivalent to 325 contact hrs; 25 hrs/ week for 13 weeks

## II. Course Description:

This is course concerns with training in actual fields and is designed to make the students able to apply their knowledge and skills in a real “community pharmacy”. The course is preceded by (community pharmacy I,II) courses which concerned in knowledge and patient counseling and pharmacy administration skills required for effective practicing in “community pharmacy. The course is co-requisite with the (pharmacoeconomics course) in order to link between pharmacist roles as provider of services to patients and as business men/women.



### III. Intended learning outcomes of the course (CILOs) and their alignment to Program Intended learning outcomes (PILOs), teaching strategies and assessment strategies

#### 1. Alignment CILOs to PILOs

No.	PILOs	CILOs
1.	A10	a1. Describe the role of pharmacist in actual life-field of community pharmacies
2.	B7	b1. Formulate and evaluate patient needs to OTC medications to improve patient safety and drug efficacy
3.	C4	c1. Advice patients to optimize medicines use.
4.	C6	c2 . Apply administrative and pharmacoeconomics rules in “community pharmacy”.
5.	D1	d1. Communicate effectively and behave in discipline with colleagues, preceptor and boss,
6.	D2	d2. Demonstrate the skills of time management and self-learning.
7.	D4	d3. Take responsibility for adaption to change needs in community pharmacy practice
8.	D5	d4. Retrieve evidence-based references to obtain correct information on medications.

#### 2. Alignment CILOs to teaching strategies and assessment strategies

(a) Alignment Course Intended Learning Outcomes (CILOs) of knowledge skills to Teaching Strategies and Assessment Strategies:

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1	Field training	Committee Exam

(b) Alignment Course Intended Learning Outcomes (CILOs) of intellectual Skills to Teaching Strategies and Assessment Strategies:

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1	Field training	Committee exam Committee Exam, Reporting & accomplishment assessment (by the preceptor of training)



**(b) Alignment Course Intended Learning Outcomes (CILOs) of intellectual Skills to Teaching Strategies and Assessment Strategies:**

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
c1	Field training	Committee exam Committee Exam, Reporting & accomplishment assessment (by the preceptor of training)
c2	Field training	Reporting & accomplishment assessment (by the preceptor of training)

**(d) Alignment Course Intended Learning Outcomes (CILOs) of Transferable Skills to Teaching Strategies and Assessment Strategies:**

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1, d3	Field training	Attitude assessment (by the preceptor of training)
d2, d4	Field training	Reporting & accomplishment assessment (by the preceptor of training)

**Course Content: Field training in a community pharmacy (supervised and monitored by preceptor) & visiting a manufacturing plant**

Order	Units/ Topics List	CILOs	Sub Topics List	No. of Weeks	contact hours
1	Drug products arrangement and Storage	a1, b1, c1, c2, d1, d2, d3, d4	<ul style="list-style-type: none"> <li>Arrangement of drug products in community pharmacy</li> <li>Application the specific storage conditions for drug products</li> <li>Reporting of types of dug products in the pharmacy</li> </ul>	1- 3 <sup>rd</sup> week	75
2	Skills of dispensing	a1, b1, c1, c2, d1, d2, d3, d4	<ul style="list-style-type: none"> <li>Application of Dispensing regulations</li> <li>Medical prescriptions and interpretation</li> <li>Dispensing of controlled drugs</li> </ul>	4 <sup>th</sup> – 6 <sup>th</sup> week	75



Mid-term assessment week				7 <sup>th</sup> week	
3	skills of Patients counseling services & drug information	a1, b1, c1, c2, d1, d2, d3, d4	<ul style="list-style-type: none"> <li>• Skills of communication with patients</li> <li>• Responding to patients questions</li> <li>• Counseling related to Drug products use</li> <li>• Recommendation of OTC products</li> <li>• Drug indexes : types, how to use</li> </ul>	8 <sup>th</sup> –9 <sup>th</sup> week	50
4	Pharmacy management	a1, b1, c1, c2, d1, d2, d3, d4	<ul style="list-style-type: none"> <li>• Employments leadership</li> <li>• Sale &amp; purchasing skills</li> <li>• Ordering of drug products</li> <li>• Documentation</li> <li>• Financial tasks.</li> </ul>	10 <sup>th</sup> week – 11 <sup>th</sup> week	50
	Drug plants	a1, b1, d1, d2, d3	<p>Visiting 2 local pharmaceutical plants: Students are intended to visit 2 pharmaceutical manufacturing companies in order to accomplish the following tasks :-</p> <ul style="list-style-type: none"> <li>• Quality control                             <ul style="list-style-type: none"> <li>○ Identifying processes of Sampling and analysis of raw materials</li> <li>○ Identifying processes Sampling and analysis of pharmaceutical dosage forms.</li> <li>○ Identifying Microbiological analysis in the plant</li> </ul> </li> <li>• Identifying unit-operation employed for pharmaceutical dosage forms production:                             <ul style="list-style-type: none"> <li>○ Solid dosage forms</li> <li>○ Liquid dosage forms</li> <li>○ Semisolid dosage forms</li> </ul> </li> <li>• Identifying the aspects of</li> </ul>	12 <sup>th</sup> -14 <sup>th</sup> weeks	75



			Pharmaceutical research and development. <ul style="list-style-type: none"> <li>○ Master file</li> <li>○ Similar Products investigation</li> <li>○ Formulation steps</li> <li>● Stability studies</li> </ul>		
FINAL - assesment				15 <sup>th</sup> week	
TOTAL					325 actual contact hours
Number of Weeks				15 weeks	3 credit hours equivalent to 325 contact hours

### V. Teaching strategies of the course:

Field training: each 2-3 students are commissioned to do certain assignments in a real field entity such as drug factory, hospitals, pharmacies under supervision of both the field principal and an academic preceptor

### VI. Accomplishment and Reporting assignment:

No	Assignments	Aligned CILOs	Week Due
1	Individual : each student is assigned complete all tasks mentioned in the course content and to fill the field-training booklet and answers all questions in it.	a1, b1, c1, c2, d2, d4	1- 14 <sup>th</sup> week

### VII. Schedule of Assessment Tasks for Students During the Semester

No.	Assessment Method		Week Due	Mark	Proportion of Total course Assessment	Aligned Course Learning Outcomes (CILOs)
1	Training works Assessment (by the preceptor of	Attitude	1-15	20	20 %	d1, d3
2		Reporting and accomplishment	12	50	50 %	a1, b1, c1, c2, d2, d4



	training)					
4	Final Committee exam * (Oral exam)	17	30	30 %	a1, b1, c1, c2, d1, d2, d3, d4	
TOTAL			100	100 %		

\* : A committee of three of the teaching staff including the preceptor of the training.

The marks of the committee exam is divided as follows:

Item	Mark
preceptor	10
Committee member ( A member of staff of pharmacy department)	20

### General Rule

- The student should provide a signed documents the from the preceptor. The documents shall confirm the student`s appropriate attendance, behavior and number hours of practice. No student will be allowed to enter the final exam without such documents.

## VIII. Learning Resources:

1- Required Textbook(s) ( maximum two ).

- Lillian M Azzopardi. Lecture notes on pharmacy practice, Pharmaceutical press.
- A Langley, Dawn Belcher. Applied pharmaceutical skills, Pharmaceutical press.

2- Essential References.

- Agarwal. Dispensing and community pharmacy
- Jain. A text book of professional pharmacy

3- Electronic Materials and Web Sites *etc.*

## IX. Course Policies:

- Attendance: At least 75 % of the course hours should be attended by the student. Otherwise, he/she will not be allowed to attend the final exam



## PHARMACY TRAINING II

III. Course Identification and General Information:							
1	Course Title:	PHARMACY TRAINING II					
2	Course Code &Number:	PHPP 525					
3	Credit hours:	C.H					
		Theoretical			P.	Tr.	TOTAL
		L.	Tut.	S.			
		-	-	-	-	3*	3*
4	Study level/ semester at which this course is offered:	( 5 <sup>TH</sup> ) Year – ( SECOND ) semester					
5	Pre –requisite (if any):	<ul style="list-style-type: none"> <li>• Pharmaceutics I, II &amp; III</li> <li>• Clinical pharmacy II</li> <li>• Pharmacology I &amp; II &amp; III</li> <li>• Pharmaceutical quality control</li> <li>• Industrial pharmacy</li> </ul>					
6	Co –requisite (if any):	<ul style="list-style-type: none"> <li>• Hospital pharmacy</li> </ul>					
7	Program (s) in which the course is offered:	All BC programs offered by the university					
8	Language of teaching the course:	ENGLISH					
9	Location of teaching the course:	IN THE UNIVERSITY					
10	Prepared by	Dr/ Anes A. M. Thabit					
11	Date of Approval	8/2019					

L: lecturing ; Tut: Tutorial , S: seminar ; P: practical ; Tr.: training  
\*: 3 credit hrs are equivalent to 325 contact hrs; 25 hrs/ week for 13 week

### IV. Course Description:

This is course is the second training course in the program and it concerns with actual training and visits to real life-fields including: hospitals and Pharmaceutical manufacturing plants. The course is co-requisite with the (hospital pharmacy course) in order to make the students able to apply their knowledge and skills attained with the relevant course into real practice in hospitals.





III. Intended learning outcomes of the course (CILOs) and their alignment to Program Intended learning outcomes (PILOs), teaching strategies and assessment strategies		
1. Alignment CILOs to PILOs		
No.	PILOs	CILOs
1.	A10	a1. Describe the role of pharmacist in actual life-practice in hospitals and pharmaceutical manufacturing plants.
2.	B3	b1. Design and evaluate different types of pharmaceutical products.
3.	C4	c1. Advice patients to optimize medicines use.
4.	C6	c2 . Apply administrative and pharmacoeconomics rules in hospitals.
5.	D1	d1. Communicate effectively and behave in discipline with colleagues , preceptor and field managers.
6.	D2	d2. Demonstrate the skills of time management.
7.	D4	d3. Take responsibility for adaption to change needs in community pharmacy practice
8.	D5	d4. Retrieve evidence-based references to obtain correct information on medications.

2. Alignment CILOs to teaching strategies and assessment strategies		
(a)Alignment Course Intended Learning Outcomes (CILOs) of knowledge skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1	Field training	Committee Exam
(b) Alignment Course Intended Learning Outcomes (CILOs) of intellectual Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1	Field training	Committee exam Committee Exam, Reporting & accomplishment assessment (by the preceptor of training)
(b)Alignment Course Intended Learning Outcomes (CILOs) of intellectual Skills to Teaching Strategies and Assessment Strategies:		



Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
c1	Field training	Committee exam Committee Exam, Reporting & accomplishment assessment (by the preceptor of training)
c2	Field training	Reporting & accomplishment assessment (by the preceptor of training)
<b>(d)Alignment Course Intended Learning Outcomes (CILOs) of Transferable Skills to Teaching Strategies and Assessment Strategies:</b>		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1, d3	Field training	Attitude assessment (by the preceptor of training)
d2, d4	Field training	Reporting & accomplishment assessment (by the preceptor of training)

Course Content: Field training in a hospital pharmacy (supervised and monitored by preceptor) and clinical centre					
Order	Units/ Topics List	CILOs	Sub Topics List	No. of Weeks	contact hours
	Hospital training	a1, b1, c1, c2, d1, d2, d3, d4	Training in the hospital <u>Hospital pharmacy tasks</u> <ul style="list-style-type: none"> <li>Distribute drugs to in-patients</li> <li>Dispense drugs to in-patients and out-patients</li> <li>Arrangement of hospital specific drug products: operations and preoperative drug products, emergency drug products</li> <li>Documenting</li> <li>performing Medical supply practice in the hospital</li> </ul>	1 <sup>st</sup> -6 <sup>th</sup> weeks	150
Mid-term assessment week				7 <sup>th</sup> week	



			<p><u>Clinical tasks</u></p> <ul style="list-style-type: none"> <li>• Checking of patients prescriptions using reliable references e.g. Medscape</li> <li>• Evaluation of patient medication records</li> </ul>	8 <sup>th</sup> -11 <sup>th</sup> weeks	100
	Clinical pharmacist as a member of the health care team	a1, a2, a3, b1, b2	<ul style="list-style-type: none"> <li>○ sharing in morning rotation and discussion , cooperation with other members</li> <li>○ patient's medical record (PMR): components, examples                             <ul style="list-style-type: none"> <li>○ Skills of communication with patients</li> </ul> </li> </ul>	12 <sup>th</sup> week	25
	Clinical skills of diagnosis and data interpretation	a1, a4, b1, b2, b3, b5, d4	<ul style="list-style-type: none"> <li>• Clinical features</li> <li>• Physical (clinical) examinations: methods and interpretation</li> <li>• Vital signs evaluation and interpretation</li> <li>• Clinical lab. Data interpretation: blood analysis (CBC, serology, biochemistry, tumor markers), stool analysis, urine analysis.</li> <li>○ Clinical instrumental diagnosis: techniques and data interpretation: Radiography, ultrasonography, Computed Tomography Scan (CT scan), Magnetic Resonance Imaging</li> </ul>	13 <sup>th</sup> -14 <sup>th</sup> weeks	50
FINAL – assessment week				15 <sup>th</sup> weeks	
TOTAL				15	3 credit hours equivalent to 325 contact hours
Number of Weeks /and Units Per Semester				15 weeks	325 actual contact hours



## VI. Teaching strategies of the course:

Field training: each 2-3 students are commissioned to do certain assignments in a real field entity such as drug factory, hospitals, pharmacies under supervision of both the field principal and an academic preceptor

## VII. Accomplishment and Reporting assignment:

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## VIII. Schedule of Assessment Tasks for Students During the Semester

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3	Final Committee exam * (Oral exam)		17	30	30 %	a1, b1, c1, c2, d1, d2, d3, d4
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### 2- Essential References.

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### 3- Electronic Materials and Web Sites *etc.*

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