Republic of Yemen

Ministry of Higher Education & Scientific Research
21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of Therapeutics (1)

Course No. (02.01.212)

2016/2017

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs Dean of College
Dr. Ali Alyahawi	Dr. Hassan Al-Mahbashi	Dr. Hemuel	Dr. Abdulelah Thabet
		ACIS	SOULT GOVERN
		The	
			Michael Company

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance

I. Course Identification and General Information:

1	Course Title:	Therapeutics (1)			
2	Course Code & Number:	02.01.212			
		Credit Theory Hours		Hours	Practical
3	Credit Hours: Hours		Lecture	Exercise	Fractical
		3	2		2
4	Study Level/ Semester at which this Course is offered:	4 Level / 1 Semester			
5	Pre -Requisite (if any):	Pharmacology-III			
6	Co -Requisite (if any):	Case Studies in Therapeutics (1):			
	Co – Requisite (ii any).	"case-based seminars"			
7	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm.			& Pharm.
,	1 rogram (s) in which the Course is Offered.	D.			
8	Language of Teaching the Course:	English			
9	Study System:	Semester based System			
10	Mode of Delivery:	Full Time			
11	Location of Teaching the Course:	Faculty of Clinical Pharmacy			
12	Prepared by:	Dr. Ali Alyahawi			
13	Date of Approval:				

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Department of

Unite of Development & Quality assurance



و الشخ المحكمة و التحيير التحيير التحيير التحكم التحكم و التعليم العالي والبحث العلمي المعلم المعلمية و التطبيقية والتطبيقية والتطبيقية والتطبيقية والتطبيقية والتطبيقية والتطبيقية والتحديد المعلم ا

قسم..... وحدة التطوير وضمان الجودة

II. Course Description:

The course content aims to understand the pathophysiology, clinical manifestations, complications, goals of therapy of cardiovascular and infectious diseases. The pharmacotherapy course is supportive course for pharmacy practice and integrated cases I course and is complementary to pathophysiology and pharmacology courses.

III. Course Intended Learning Outcomes (CILOs) :	Referenced PILOs Learning out of program
nowledge and Understanding: Upon successful completion of the course,	students will be able
Discuss the pathophysiology, clinical presentation and prognosis of cardiovascular and infectious diseases.	A1
Describe the goals of therapy for cardiovascular and infectious diseases	A3, A4, A5, A7
tellectual Skills: Upon successful completion of the course, students w	vill be able to:
Design properly the drugs regimens and monitoring plans of cardiovascular and infectious diseases.	B2, B3, B5, B6
rofessional and Practical Skills: Upon successful completion of the course	e, students will be able
Apply properly drugs regimens and monitoring parameters to achieve targeted therapeutic outcomes of cardiovascular and infectious diseases	C2, C3. C5. C6
Provide a correct information to the health care team regarding therapeutic goals and rational drugs selection.	C4
	Discuss the pathophysiology, clinical presentation and prognosis of cardiovascular and infectious diseases. Describe the goals of therapy for cardiovascular and infectious diseases tellectual Skills: Upon successful completion of the course, students was Design properly the drugs regimens and monitoring plans of cardiovascular and infectious diseases. Describe the goals of therapy for cardiovascular and monitoring plans of cardiovascular and infectious diseases. Design properly the drugs regimens and monitoring plans of cardiovascular and infectious diseases. Apply properly drugs regimens and monitoring parameters to achieve targeted therapeutic outcomes of cardiovascular and infectious diseases Provide a correct information to the health care team regarding

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi



كلية الصيدلة السريرية قسم..... وحدة التطوير وضمان الجودة

d1	Search efficiently for required medical information in professional medical references and sites.	D1. D2. D3.
d2	Communicate effectively and ethically with a healthcare team and patients	D1

(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies: Course Intended Learning Outcomes Teaching strategies Assessment				
course intended Learning Outcomes	reaching strategies	Assessment Strategies		
a1- Discuss the pathophysiology, clinical presentation and prognosis of cardiovascular and infectious diseases.		Exam Assignment Quiz		
a2- Describe the goals of therapy for cardiovascular and infectious diseases	Lecture Instructor – student Interactive Office hour	Exam Assignment Quiz		

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:				
Course Intended Learning Outcomes Teaching strategies Assessment Strategies				
b1- Design properly the drugs regimens and monitoring plans of cardiovascular and infectious diseases.	period on the transfer of the	Problem-Solving Exercises. Assignment Quiz		

(C) Alignment Course Intended Learning Outcomes Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
C1- Appy properly drugs regimen and monitoring parameters to achieve targeted therapeutic outcomes of cardiovascular and infectious diseases	Lecture Instructor – student Interactive Self-Learning	Exam Assignment Quiz
C2- Provide a correct information to the health care team regarding therapeutic goals and rational drugs selection.	Lecture	Exam Assignment

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



وزارة التعليم العالي والبحث العلمي لة 21 سبتمبر للعلوم الطبية والتطَّه كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

Instructor – student	Ouiz
Interactive	
Self-Learning	

(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:			
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies	
d1- Search efficiently for required medical information in professional medical references and sites.	Self-Learning Seminar Exercises	Presentation Assignment Quiz	
d2- Communicate effectively and ethically with a healthcare team and patients	Seminar Instructor–student Interactive Exercises	Presentation	

I. Course Content:

A - Theoretical Aspect:

Orde r	Units/Topics List	Learning Outcomes		Sub Topics List	Number of Weeks	Contac t Hours
		a1, a2, b1, c1,c2, d1, d2	-	Hypertension (HTN)	1	2
		a1, a2, b1, c1, c2, d1,d2	-	Heart Failure (HF)	1	2
1		a1, a2, b1, c1, c2, d1,d2	-	Ischemic Heart Diseases (CAD)	2	
	CVD	a1, a2, b1, c1, c2, d1, d2	-	Dyslipidemias	1	2
		a 1, a2, b1, c1,c2, d1, d2	-	Venous Thromboembolism (VTE)	1	2
		a 1, a2, b1, c1, c2, d1, d2	-	Stroke	1	2
2	Midterm Exam	a 1, a2, b1, c1, c2, d1			1	2
3	CVD	a 1, a2, b1, c1, c2, d1, d2	-	Cardiac Arrhythmias	1	2
4	Infectious Diseases	a 1, a2, b1, c1, c2, d1, d2	-	Lower Respiratory Tract Infection Upper Respiratory Tract Infection	2	4

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

بِ لِمَالَةُ مُنْ الْحَالِيَ مِنْ الْحَالِيَ مِنْ الْحَالِيَ مِنْ الْحَالِيَ مِنْ الْحَالِيَ مِنْ الْحَالِيَ مِنْ الْحَالِينَ مِنْ الْحَالِينِ مِنْ الْحَالِينَ مِنْ الْحَالِينِ مِنْ الْحَالِينَ مِنْ الْحَالِينَ مِنْ الْحَالِينَ مِنْ الْحَلِينِ مِنْ الْحَالِينِ مِنْ الْحَلْمِينِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلِينِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلِيلِي الْحَلِيلِي الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلِيلِي الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلِيلِي الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحِلْمِ الْحَلْمِ الْحَلِيلِيْعِلَيْعِيلِي الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلِيلِي الْحَلْمِ الْحَلِيلِي الْحَلْمِ الْحَامِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ الْحَلْمِ ا

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS

Faculty of Faculty of Clinical Pharmacy



وزارة التعليم العالي والبحث العلمي وزارة التعليم العالي والبحث العلمي والمعسة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

Number of Weeks /and Units Per Semester						16	32
5	Final Exam	a 1, a2, b1, c1, c2, d1				1	2
		a 1, a2, b1, c1, c2, d1, d2	_	CNS infections	2		2
		a 1, a2, b1, c1, c2, d1, d2	-	Antimicrobial Prophylaxis in Surgery		1	2
		a 1, a2, b1, c1, c2, d1, d2	726	Urinary Tract Infection	1		2

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Principles of Pharmacy Practice	Pharmacist CarePharmacist Care PlanMonitoring Parameters	1	2	a1, a2, b1
	Cases study of CVD	 HTN HF CAD Acute Coronary Syndromes (ACS) Dyslipidemia Venous Thromboembolism (VTE) 	1 1 1 1 1	2 2 2 2 2 2 2	a 1, a2, b1, c1, c2, d1, d2
2	Midterm Exam		1	2	a 1, a2, b1, c1, c2, d1, d2
3	Cases study of CVD	– Stroke	1	2	a 1, a2, b1, c1, c2, d1, d2

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

بِ لِمَالِحَوْلَالِيَ

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy



التحموركييس التيسيسين وزارة التعليم العالمي والبحث العلمي المعلى المعلى

كلية الصيدلة السريرية

قسم.... وحدة التطوير وضمان الجودة

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		- Lower Respiratory Tract Infection	1	2	
		- Upper Respiratory Tract Infection	1	1 2	9 1
4	Cases study of Infectious Diseases	- Urinary Tract Infection	1	2	Outcomes
		- Antimicrobial Prophylaxis in Surgery	1	2	62, 41, 42
		- CNS infections	2	. 4	
5	Final Theoretical Exam		1	2	
	Number of Weeks	s /and Units Per Semester	16	32	

C. Tutorial Aspect: (ان وجدت)

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
. 1	NA			
2	1-	=		
3	2-			
4	3-			
5	4-			1
6	5-			
7	6-			

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



وزارة التعليم العالي والبحث العلمي وزارة التعليم العالي والبحث العلمي بامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم وحدة التطوير وضمان الجودة

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
8	7-			
9	8-			
10	9-			

V. Teaching Strategies of the Course:

VI. Assessment Methods of the Course:

Lecture	
Instructor – student Interactive	
Exercises	
Presentation	
Office hours	
Seminar	
Assignment	
Self-Learning	

•	
signments	

Assignments
Quiz
Exam

V	VII. Assignments:						
No	Assignments	Aligned CILOs(symbols)	Week Due	Mark			
1	Assignment 1: Each student presents selected case in selected topic under study	a 1, a2, b1, c1, c2, d1, d2	6th	5			

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



المُحَكَّمُ *وَرِيَّتِ* مَنْ الْمُعِيَّرِيِّ مِنْ العلمي وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبية

له 21 سبلمبر للعوم الطبية والمديدة والمديدة المديدة

قسم...... وحدة التطوير وضمان الجودة

2	Assignment 2: Each students group present updated guideline on selected topic under study	12th	5
	Total		10

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	3 rd , 12 th	10	10%	a 1, a2, b1, c1, c2, d1
2	Practical Reports	2 nd -13 th	5	5%	a 1, a 2, b1,c1, c2
3	Midterm Exam (Theory)	Week 7	10	10%	a 1, a2, b1, c1, c2, d1
4	Final Practical Exam	14 th	20	15%	a1, a2, c1, c2
5	Final Exam (Theory)	Week 16	50	50%	a 1, a2, b1, c1, c2, d1
	Total		100	100%	

IX. Learning Resources:

• Written in the following order: (Author - Year of publication - Title - Edition - Place of publication - Publisher).

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

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1 -DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed edition.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Walk Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

- 1 -www.accesspharmacy.com
- 2 -Disease management guidelines (specified in lecture notes)

X. Course Policies: (Based on the Uniform Students' By law (2007)

Class Attendance:

Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



كلية الصيدلة السريرية قسم..... وحدة التطوير وضمان الجودة

2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of Unite of Development & Quality assurance



Republic of Yemen

Ministry of Higher Education & Scientific Research

21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Program of Clinical Pharmacy & Pharm. D.

Course Plan (Syllabus) of Therapeutics (1)

Course No. (02.01.212)

2016/2017

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



قسم..... وحدة التطوير وضمان الجودة

I. Information about Faculty Member Responsible for the Course:							
Name of Faculty Member:	Dr. Ali Alyahawi			Office	Hour	's	
Location& Telephone No.:							
E-mail:		SAT	SUN	MON	TUE	WED	THU

II. Course Identification and General Information:

1	Course Title:	Therape	utics (1)		-	
2	Course Code & Number:	02.01.21	12			
		Credit	Theory	Hours		
3	Credit Hours:	Hours	Lecture	Exercise	Practical	
		3	2		2	
4	Study Level/ Semester at which this Course is offered:	4 Level / 1 Semester				
5	Pre –Requisite (if any):	Pharmacology-III				
6	Co –Requisite (if any):	Case Studies in Therapeutics (1): "case-based seminars"				
7	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm D.				
8	Language of Teaching the Course:	English				
9	Study System:	Semester based System				
10	Mode of Delivery:	Full Time				
11	Location of Teaching the Course:	Faculty	of Clinical I	Pharmacy		
12	Prepared by:	Dr. Ali A	Alyahawi	=		
13	Date of Approval:					

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



وزارة التعليم العالي والبحث العلمي وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم.....

وحدة التطوير وضمان الجودة

III. Course Description:

The course content aims to understand the pathophysiology, clinical manifestations, complications, goals of therapy of cardiovascular and infectious diseases. The pharmacotherapy course is supportive course for pharmacy practice and integrated cases I course and is complementary to pathophysiology and pharmacology courses.

A. K	nowledge and Understanding: Upon successful completion of the course, s	tudents will be able
a1	Discuss the pathophysiology, clinical presentation and prognosis of cardiovascular and infectious diseases.	A1
a2	Describe the goals of therapy for cardiovascular and infectious diseases	A3, A4, A5, A7
B. In	tellectual Skills: Upon successful completion of the course, students wi	ll be able to:
b1	Design properly the drugs regimens and monitoring plans of cardiovascular and infectious diseases.	B2, B3, B5, B6
C. Pi	ofessional and Practical Skills: Upon successful completion of the course,	students will be able
c1	Apply properly drugs regimens and monitoring parameters to achieve targeted therapeutic outcomes of cardiovascular and infectious diseases	C2, C3. C5. C6
c2	Provide a correct information to the health care team regarding therapeutic goals and rational drugs selection.	C4
D. T	ansferable Skills: Upon successful completion of the course, students will b	e able to:
d1	Search efficiently for required medical information in professional medical	D. D. D.
	references and sites.	D1. D2. D3.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



المجموع ويست المحمدية و المحمد و زارة التعليم العالي والبحث العلمي المعسة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم...... وحدة التطوير وضمان الجودة

V. Course Contents:

A. Theoretical Aspect:

Order	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		- Hypertension (HTN)	1	2
		- Heart Failure (HF)	1	2
		- Ischemic Heart Diseases (IHD)	2	4
1	CVD	- Dyslipidemias	1	2
		- Venous Thromboembolism (VTE)	1	2
		- Stroke	1	2
2	Midterm Exam		1	2
3	CVD	- Cardiac Arrhythmias	1	2
4		 Lower Respiratory Tract Infection Upper Respiratory Tract Infection 	2	4
	Infectious Diseases	- Urinary Tract Infection	1	2
	-	- Antimicrobial Prophylaxis in Surgery	1	2
	, <	- CNS infections	2	2
5	Final Exam		1	2
	Nun	nber of Weeks /and Units Per Semester	16	32

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



والم التعاده العالى والديث العلمي

وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم وصمان الجودة

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Principles of Pharmacy Practice	Pharmacist CarePharmacist Care PlanMonitoring Parameters	1	2
	5	- HTN	1	2
		- HF	1	2
2	Cases study of CVD	- CAD	1	2
	Š	- Acute Coronary Syndromes (ACS)	1	2
		- Dyslipidemia	1	2
		- Venous Thromboembolism (VTE)	1	2
3	Midterm Exam		1	2
4	Cases study of CVD	– Stroke	1	2
	- 4	-Lower Respiratory Tract Infection	1	2
		-Upper Respiratory Tract Infection	1	2
5	Cases study of	-Urinary Tract Infection	1	2
	Infectious Diseases	-Antimicrobial Prophylaxis in Surgery	1	2
	ė	-CNS infections	2	4

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



وزارة التعليم العالي والبحث العلمي وزارة التعليم العالي والبحث العلمي المعلم 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم...... وحدة التطوير وضمان الجودة

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
6	Final Theoretical Exam		1	2
	Number of Weeks	and Units Per Semester	16	32

C. Tutorial Aspect:

No.	Tutorial	Number of Weeks	Contact Hours
1	NA **		este esta a la companya de la compa
2	10-		
3	11-		
4	12-		
5	13-		
6	14-		
7	15-		
8	16-		
9	17-		
10	18-		
	Number of Weeks /and Units Per Semester		

VI. Teaching Strategies of the Course:

Lecture

Instructor - student Interactive

Exercises

Presentation

Office hours

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance



كلية الصيدلة السريرية قسم..... وحدة التطوير وضمان الجودة

Seminar		
Assignment		
Self-Learning		

VII. Assessment Methods of the Course:

Assignments

Quiz

Exam

VIII. Assignments:

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1	Assignment 1: Each student presents selected case in selected topic under study	a 1, a2, b1, c1, c2, d1, d2	6th	5
2	Assignment 2: Each students group present a 1, a2, b1, c1,c2, d1, d2 updated guideline on selected topic under study		12th	5
	Total			10

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	3 rd , 12 th	10	10%	a 1, a2, b1, c1, c2, d1
2	Practical Reports	2 nd -13 th	5	5%	a 1, a 2, b1,c1, c2
3	Midterm Exam (Theory)	Week 7	10	10%	a 1, a2, b1, c1, c2, d1
4	Final Practical Exam	14 th	20	15%	a1, a2, c1, c2
5	Final Exam (Theory)	Week 16	50	50%	a 1, a2, b1, c1, c2, d1
	Total		100	100%	

X. Learning Resources:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance



ة 21 سبتمبر للعلوم الطبية والت كلية الصيدلة السريرية قسم..... وحدة التطوير وضمان الجودة

Written in the following order: (Author - Year of publication - Title - Edition - Place of publication -Publisher).

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

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1 -DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Walker Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

- 1 -www.accesspharmacy.com
- 2 -Disease management guidelines (specified in lecture notes)

XI. Course Policies: (Based on the Uniform Students' Bylaw (2007)

1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



المحمقورية العينية العينية والبحث العلمي وزارة التعليم العالي والبحث العلمي

ورارة السيم المعلق والمبية والتطبيقية علية الصيدلة السريرية كلية الصيدلة السريرية

قسم.... وحدة التطوير وضمان الجودة

	Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen

Ministry of Higher Education & Scientific Research

21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm D

Course Specification of Therapeutics (2)

Course No. (02.01.215)

2016/2017

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr Hassan Al Mahbashi	Dr. Mayer	Dr. Abdulelah Thabet	Dr. Ali Alvabawi
		Allay	me All OC	
	i ë			
			The state of the s	التخليدة والنط



كلية الصيدلة السريرية

وحدة التطوير وضمان الجودة

I. Course Identification and General Information:

1	Course Title:	Therapeutics- II			
2	Course Code & Number:	02.01.215			
		Credit	Theory	y Hours	
3	Credit Hours:	Hours	Lecture	Exercise	Practical
		3	2		2
4	Study Level/ Semester at which this Course is offered:	4 Level / 2 Semester			
5	Pre -Requisite (if any):	Pharmacology-IV			
6	Co -Requisite (if any):	Case Studies in Pharmacotherapy-II:			
		"case-based seminars"			
7	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm.			
Ĺ	2 rogram (5) in which the course is officien.	D.			
8	Language of Teaching the Course:	English			
9	Study System:	Semester based System			
10	Mode of Delivery:	Full Time			
11	Location of Teaching the Course:	Faculty of Clinical Pharmacy			
12	Prepared by:	Dr. Ali A	Alyahawi		
13	Date of Approval:		- CANAL -		

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

II. Course Description:

The course content is supportive for pharmacy practice and integrated cases II course and is complementary to pathophysiology and pharmacology courses and is. The course deals with the study of pathophysiology, clinical presentations, the therapeutic goals, rational pharmacotherapy regimen, the standard therapeutic plans, and patient education for selected endocrine and renal diseases.

	III. Course Intended Learning Outcomes (CILOs) :	Referenced PILOs Learning out of program
A. K to:	nowledge and Understanding: Upon successful completion of the course	e, students will be able
al	Define the pathophysiology, clinical presentations, and prognosis of endocrine and renal diseases.	A1
a2	Describe the target goals of therapy for endocrine and renal diseases	A3, A4, A5, A7
a3	Determine the rational pharmacotherapy regimen for treatment of endocrine and renal diseases	A5, A7
B. In	tellectual Skills: Upon successful completion of the course, students	will be able to:
b1	Construct appropriate drugs regimen and monitoring plan of endocrine and renal diseases	B2, B6
C. Pi	rofessional and Practical Skills: Upon successful completion of the cour	se, students will be able
c1	Use properly drugs regimen and monitoring parameters to achieve targeted therapeutic outcomes of endocrine and renal diseases	C3
c2	Provide a correct drugs information to the health care team and the patients	C4

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi



كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

	D. Transferable Skills: Upon successful completion of the course, stude to:	ents will be able
d1	Search properly medical information from professional medical references	D2
d2	Share successfully therapeutic decisions in team-work.	D1

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1- Define the pathophysiology, clinical presentations, and prognosis of endocrine and renal diseases.	Lecture Instructor – student Interactive Office hour	Exam Assignment Quiz
a2- Describe the target goals of therapy for endocrine and renal diseases	Lecture Instructor – student Interactive Office hour	Exam Assignment Quiz

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:					
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies			
b1- Construct appropriate drugs regimen and monitoring plan of endocrine and renal diseases.	Lecture Instructor – student Interactive Exercises Solving Problem Methods	Problem-Solving Exercises. Assignment Quiz			

(C) Alignment Course Intended Learning Out Teaching Strategies and Assessment Strategies:	comes of Professional and Pr	actical Skills to
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

 A A S I ALIAN WAS JULY

المجمعي ويسيست وزارة التعليم العالي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبية كلية الصيدلة السريرية

> قسم...... وحدة التطوير وضمان الجودة

C1- Use properly drugs regimen and monitoring parameters to achieve targeted therapeutic outcomes of endocrine and renal diseases		Exam Assignment Quiz
C2- Provide a correct drugs information to the health care team and the patients	Lecture Instructor – student Interactive Self-Learning	Exam Assignment Quiz

(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:			
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies	
d1- Search properly medical information from professional medical references	Self-Learning Seminar Exercises	Presentation Assignment Quiz	
d2- Share successfully therapeutic decisions in team-work.	Seminar Instructor–student Interactive Exercises	Presentation	

I. Course Content: A – Theoretical Aspect: Units/Topics Number Contac Order **Learning Outcomes Sub Topics List** List of Weeks t Hours Diabetes Mellitus Type I 2 2 Diabetes Mellitus Type II Hypothyroidism 2 4 Endocrine a1, a2, b1, c1, c2, d1, d Hyperthyroidism 1 Diseases **Adrenal Gland Disorders** 1 2 Pituitary Gland Diseases 2 2 Midterm 2 a1, a2, b1, ,c1, c2, d1 1 2 Exam Pituitary Endocrine Gland a1, a2, b1, c1, c2, d1, 3 1 2 d2 diseases **Diseases** - Acute Kidney Injury a1, a2, b1, c1, c2, d1, d 4 Renal diseases 2 1 **CKD Stages**

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of
Unite of Development & Quality assurance



ة 21 سيتمبر للعلوم الطبية والتط كلية الصيدلة السريرية

وحدة التطوير وضمان الجودة

	Nun	nber of Weeks /and Units P	Per Semester	16	32
5	Final Exam	a 1, a 2, b1, , c1,c2, d 1		1	2
			- Acid-Base Disturbances	2	4
			- Fluids and Electrolytes	1	2
			- Complications of CKD	3	6

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		Diabetes Mellitus type 1Diabetes Mellitus type II	3	6	
1	Cases study of endocrine diseases	I Hynothyroidism		4	a1, a2, a3, b1, c1, c2, d1, d2
		Adrenal Gland Disorders	2	4	
2	Midterm Exam		1	2	a1, a2, a3, b1, c1, c2, d1, d2
3	Cases study of endocrine diseases	 Pituitary Gland Disorders 	1	2	a 1, a2, a3, b1, c1, c2, d1, d2
		- Acute Kidney Injury	1	2	
4	Cases study of Renal	liseases – Fluids and Electrolytes		6	a1, a2, a3, b1,
	uiseases			2	c1, c2, d1, d2
		Acid–Base Disturbances	1	2	
5	Final Theoretical Exam		1	2	a1, a2, a3, b1, c1, c2, d1
	Number of Weeks /	and Units Per Semester	16	32	

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



C. Tutorial Aspect: (ان وجدت)

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	NA			
2	1-			
3	2-	=		
4	3-			
5	4-			
6	5-			
7	6-			
8	7-			
9	8-			
10	9-			

V. Teaching Strategies of the Course:

- Lecture
- Instructor student Interactive
- Exercises
- Presentation
- Office hours
- Seminar
- Assignment
- Self-Learning

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance



التحمه وريب بركيسي والبحث العلمي وزارة التعليم العالي والبحث العلمي المعالمي علم 21 مستمبر للعلوم الطبية والتطبيقية كلسة الصيدلة السريرية

قسم وحدة التطوير وضمان الجودة

VI. Assessment Methods of the Course:

- Assignments
- Quiz
- Exam

V	II. Assignments:			
No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1	Assignment 1: Develop Pharmaceutical Care plan for patient with hypothyroidism	a 1, a 2, b1 ,c1, c2, d 1, d 2	Week 3	5
2	Assignment 2: Modify drug regimen for selected patients of CKD based on GFR	a 1, a 2, b1 ,c1, c2, d 1, d 2	Week 13	5
	Total			10

VII	II. Schedule of Asse	ssment '	Tasks f	or Students Du	ring the Semester
No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	3 rd , 13 th	10	10%	a1-a 3, b1, c1, c2, d 1, d 2
2	Practical Reports	2 nd -13 th	5	5%	a 1- a 2, b1, c1, c2, d 1, d 2
3	Midterm Exam (Theory)	Week 7	10	10%	a 1- a 2, b1 c1, c2, d 1, d 2
4	Final Practical Exam	14 th	20	15%	a1, a2, c1, c2
5	Final Exam (Theory)	Week 16	50	50%	a 1, a 2, b1,, ,c1, d 2
	Total		100	100%	

IX. Learning Resources:

• Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).

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

1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi



ـة 21 سبتمبر للعَلوم الطبية والتَّطَ كلية الصيدلة السريرية قسم.....

وحدة التطوير وضمان الجودة

	2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.
2- E	Essential References.
4	 DiPiro et al, 11th ed, 2020. Pharmacotherapy: A Pathophysiological Approach, Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Walk Whittlesea, 6th edition, 2018.
3- E	Electronic Materials and Web Sites etc.
	1- <u>www.accesspharmacy.com</u> 2- Disease management guidelines (specified in lecture notes)

	X. Course Policies: (Based on the Uniform Students' By law (2007)
1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance



الخرهي سيتان

وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم...... وصمان الجودة

The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Department of

Unite of Development & Quality assurance



وزارة التعليم العالى والبحث العل ة 21 سبتمبر للعلوم الطبية والتط كلية الصيدلة السريرية وحدة التطوير وضمان الجودة

Republic of Yemen

Ministry of Higher Education & Scientific Research 21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of Therapeutics (2)

Course No. (02.01.215)

2016/2017

I. Information about Faculty Member Responsible for the Course:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



وحدة التطوير وضمان الجودة

Name of Faculty Member:	Dr. Ali Alyahawi	Office Hours					
Location& Telephone No.:							
E-mail:	F	SAT	SUN	MON	TUE	WED	THU

II. Course Identification and General Information:

1	Course Title:	Therape	eutics- II			
2	Course Code & Number:	02.01.215				
		Credit	Theory	Theory Hours		
3	Credit Hours:	Hours	Lecture	Exercise	Practical	
		3	2		2	
4	Study Level/ Semester at which this Course is offered:	4 Level / 2 Semester				
5	Pre -Requisite (if any):	Pharmacology-IV				
6	Co. Bornista (if one)	Case Studies in Pharmacotherapy-II:				
0	Co –Requisite (if any):	"case-based seminars"				
7		Bachelor of Clinical Pharmacy & Pharm.				
/	Program (s) in which the Course is Offered:	D.				
8	Language of Teaching the Course:	English				
9	Study System:	Semester based System				
10	Mode of Delivery:	Full Tim	ne			
11	Location of Teaching the Course:	Faculty	of Clinical F	Pharmacy		
12	Prepared by:	Dr. Ali	Alyahawi			

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Unite of Development & Quality assurance



III. Course Description:

The course content is supportive for pharmacy practice and integrated case based learning" courses and is complementary to pathophysiology and pharmacology courses. The course aims to improve the knowledge of the pathophysiology, clinical presentations, complications, and therapeutics of oncology and hematology conditions including venous thromboembolism, emesis, anemia, infection related to cancer, common chemotherapy regimen used for cancer, pain management, general toxicity of chemotherapy agents, coagulation disorders and Sickle Cell Disease (SCD).

IV. Course Intended Learning Outcomes (CILOs):

Upon successful completion of the Course, student will be able to:

A. Kn	owledge and Understanding: Upon successful completion of the course	, students will be able			
to:					
al	Discuss the pathophysiology, clinical presentations, and				
	complications of oncology and hematology diseases.	A1			
a2	Understand the goals of therapy for oncology and hematology				
	diseases.	A3, A4, A5, A7			
B. Int	ellectual Skills: Upon successful completion of the course, students	will be able to:			
b1	b1 Design the rational medication use and monitoring plan of selected				
	oncology and hematology disease. B2, B3, B5, B6				
C. Pro	fessional and Practical Skills: Upon successful completion of the cours	e, students will be able			
to:					
cl	Apply properly the drug regimens and monitoring parameters to				
	achieve therapeutic goals of oncology and hematology diseases.	C2, C3. C5. C6			
D. Tra	nnsferable Skills: Upon successful completion of the course, student	s will be able to:			
d1	Search for updated medical information from proper medical		University of the least of the		
	references to manage oncology and hematology diseases	D1. D2. D3.			

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



الخرهي تاليست وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية

كلية الصيدلة السريرية قسم وحدة التطوير وضمان الجودة

d2	Communicate effectively therapeutics decisions with a teamwork and	
	patients.	DI

V. Course Contents:

A. Theoretical Aspect:

Order	Units/Topics List	Sub Topics List	Number of Weeks	Contac t Hours
		- Overview of cancer chemotherapy	1	2
		 Venous thromboembolism Chemotherapy-Induced Nausea and Vomiting (CINV) 	1	2
		- Anemia & Fatigue	1	2
1		- Pain management	1	2
	Oncology Supportive Care	- Infection related to cancer	1	2
		- Common chemotherapy regimen used for cancer.	1	2
		- Chemoprotectants - Oncologic Emergencies	1	2
2	Midterm Exam		1	2
3	Oncology Supportive Care	 General toxicity of some chemotherapy agents: Platinium agents (ex.Cisplatin) Anthracyclines ex.doxorubucin Vina alkaloid ex.Vincristine Methotrexate, Etoposide, Ara-C, Ifosphamide, Docetaxel, Infliximab. 	2	4
		- Anemia	1	2
		- Coagulation Disorders	2	4
4	Hematology Disorders	- Sickle Cell Disease (SCD)	1	2
		- Drug-Induced Hematologic Disorders	1	2
5	Final Exam		1	2

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi



وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم وحدة التطوير وضمان الجودة

Number of Weeks /and Units Per Semester	16	32
		34

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contac
		- Common complications of cancer chemotherapy	3	6
	Cases study in Oncology	- Acute Myeloid Leukemia (AML)	1	2
1	diseases Disorders	- Chronic Myeloid Leukemia (CML)	1	2
		- Prostate Cancer	2	4
2	Midterm Exam		1	2
3	Cases study in Oncology diseases	- Breast Cancer	1	2
		- Anemia	2	4
	Cases study in Hematology	- Coagulation Disorders	2	4
4	Disorders	- Sickle Cell Disease	1	2
		- Drug-Induced Hematologic Disorders	1	2
5	Final Theoretical Exam		1	2
	Number of Weeks /and	Units Per Semester	16	32

C. Tutorial Aspect:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



المختفى تت العيستة وزارة التعليم العالى والبحث العلمي ـة 21 سبتمبر للعلوم الطبية والتطبيقية

كلية الصيدلة السريرية

قسم.... وحدة التطوير وضمان الجودة

No.	Tutorial	Number of Weeks	Contact Hours
1	NA		
2	10-		
3	11-		
4	12-		
5	13-		
6	14-		
7	15-		
8	16-		
9	17-		
10	18-		
	Number of Weeks /and Units Per Semester		

VI. Teaching Strategies of the Course:

]	Lec	t	ır	e
	-			-

Instructor - student Interactive

Exercises

Presentation

Office hours

Seminar

Assignment

Self-Learning

VII. Assessment Methods of the Course:

Assignments

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



الْمُرْهُوَرِيَّ بِي الْمِيْسِّ بِيَّ وزارة التعليم العالي والبحث العلمي بامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصبيدلة السريرية

> قسم..... وحدة التطوير وضمان الجودة

Quiz	
Quiz	
Exam	
DAMII	

VIII. Assignments:

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	3 rd , 9 th	10	10%
2	Practical Reports	2 nd -13 th	5	5%
3	Midterm Exam (Theory)	Week 7	10	10%
4	Final Practical Exam	14 th	20	15%
5	Final Exam (Theory)	Week 16	50	50%
	Total		100	100%

X. Learning Resources:

• Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).

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

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1. DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed. edition.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Walk Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

- 1- www.accesspharmacy.com
- 2- Disease management guidelines (specified in lecture notes)

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



وزارة التعليم العالى والبحث العلمي ـة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

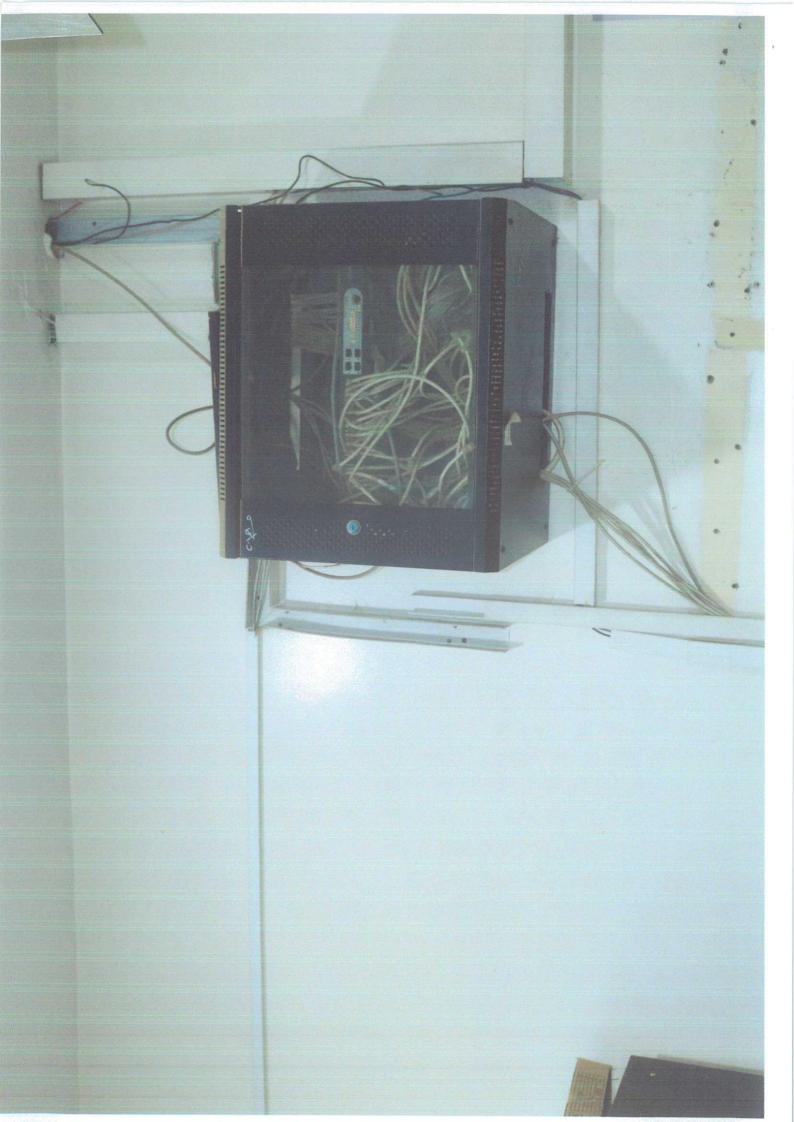
قسم.... وحدة التطوير وضمان الجودة

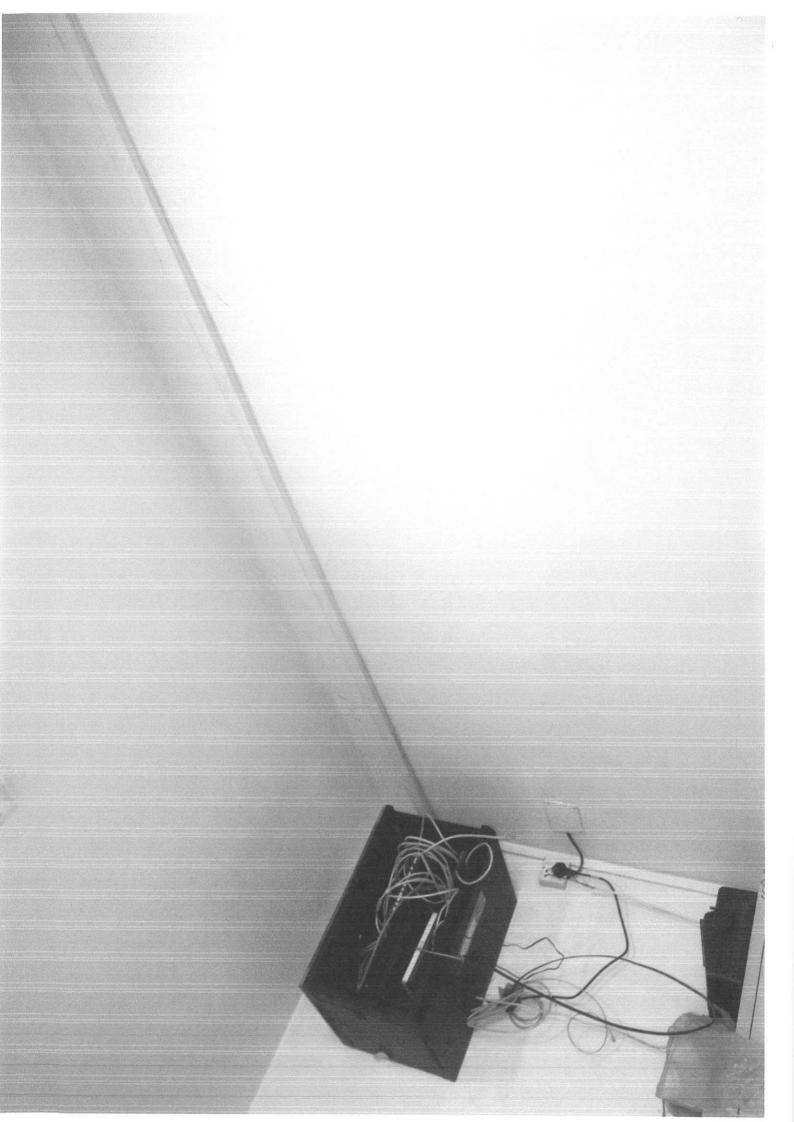
XI. Course Policies: (Based on the Uniform Students' Bylaw (2007)

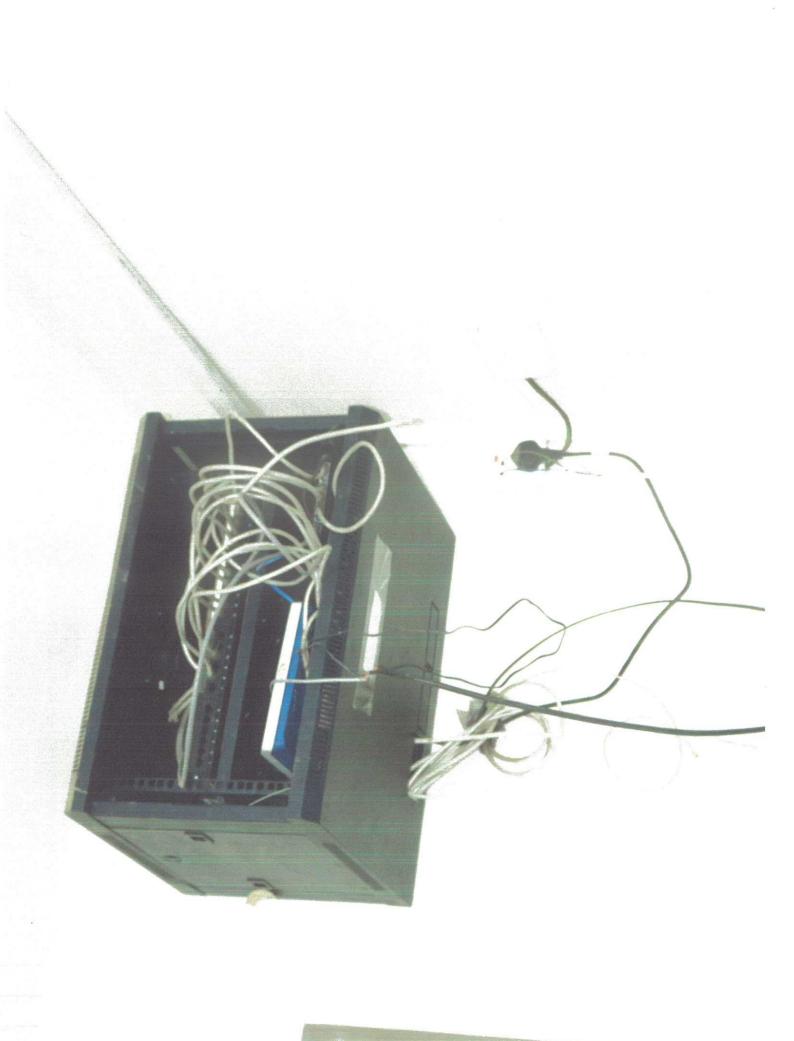
	Class Attendance:
1	Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

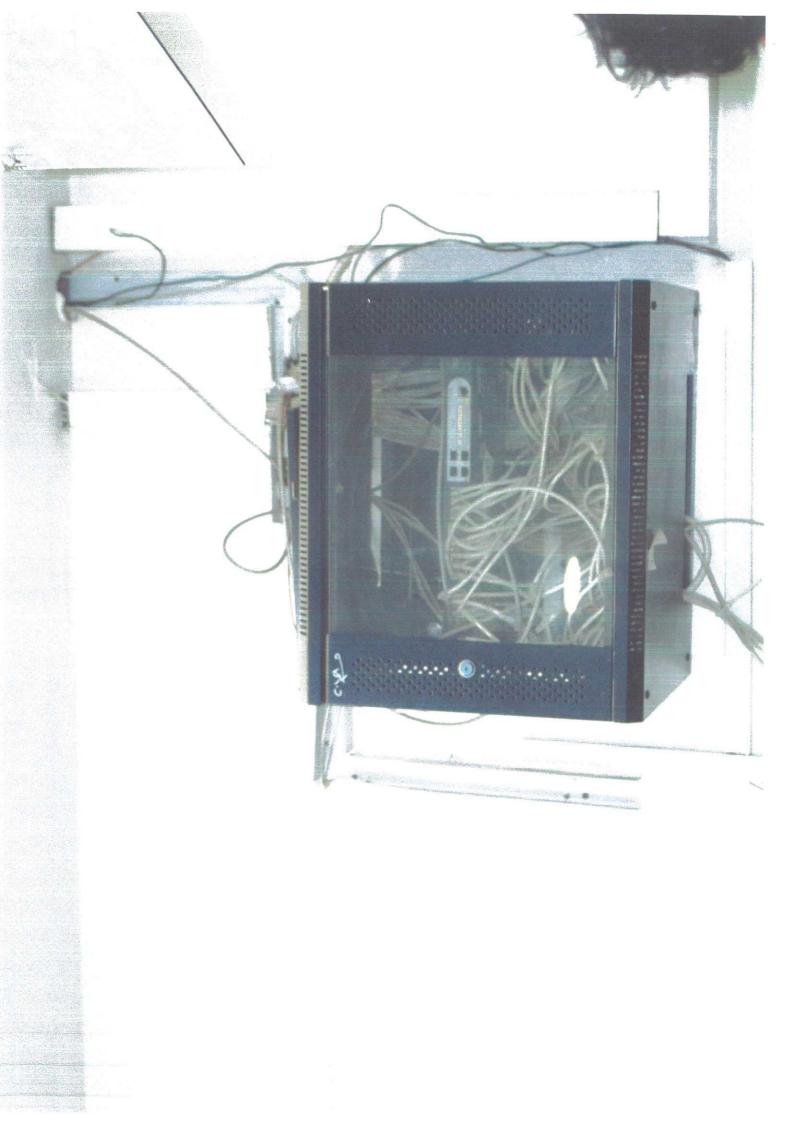


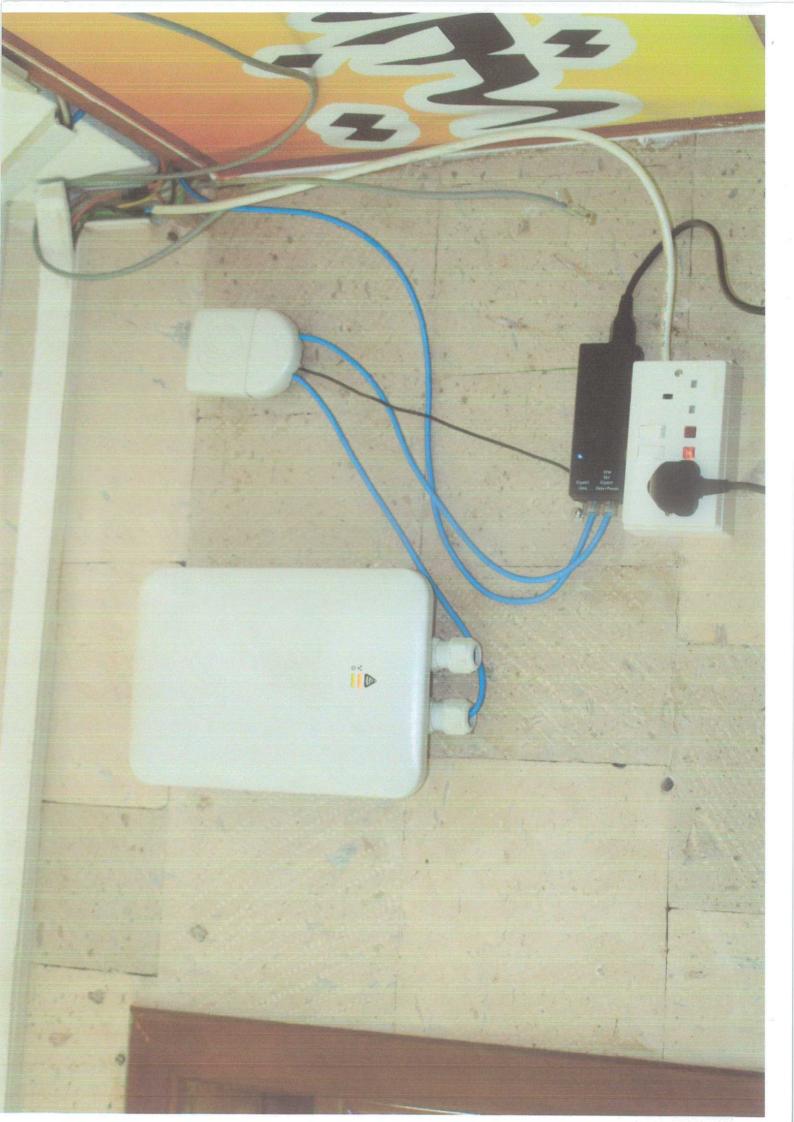












Republic of Yemen

Ministry of Higher Education & Scientific Research
21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Program of Pharm. D.

Course Specification of Hospital Training Surgery

Course No. (02.05.259)

2016/2017

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdelmalek abudunya	Dr	Dr. Abdulelah Thabet	Dr. Ati Alvahawi
	110	Amend	APA	(30)
	THE	ACBU	3	The state of the s
		and l		
				The same of the same
			*	العبية مالتعاقا
				The state of the s



وحدة التطوير وضمان الجودة

1	Course Title:	Hospital Training Surgery				
2	Course Code & Number:	02.05.259				
			С.Н			
		Th.	Seminar	Pr	Tr.	TOTAL
3	Credit hours:		-	í	96 hrs. (90 hrs. on-site a ward rotation + 6 hrs. a formal case presentation at the end of the rotation)	3 CH
4	Study level/ semester at which this course is offered:	-			***************************************	
5	Pre -requisite (if any):	Students must have successfully completed the basic curriculum of 5th Year.				
6	Co -requisite (if any):	-				
7	Program (s) in which the course is offered:	Docto	or of Pharma	cy (Pha	rm D)	
8	Language of teaching the course:	Engli	sh			
9	Study System	Seme	ester based	System		
10	Mode of delivery:	Full 7	Гіте			
11	Location of teaching the course:	Facul	ty of Clinica	al Pharm	acy	
12	Prepared By:	Dr. A	li Alyahaw	vi		
13	Date of Approval	T	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO I			

II. Course Description:

This surgery training course aims to integrate Pharm D students practice skills and the knowledge of clinical manifestations, complications, goals of pharmacotherapy and patient education in preoperational procedures. This hospital training course will cover drug therapy of the DVT prophylaxis, PONV, pain, medication adjustments pre and post surgeries, antimicrobial surgical prophylaxis, and basic concepts of local and general anesthesia. The student will receive exposure to surgery clinical training by working with surgery preceptors and documenting cases for surgery at selected training centers. Students will have the opportunity to collect data, communicate with patients and other healthcare professionals, perform in patient clinical pharmacy services and observe at least one real life patient preparation for surgery and anaesthesia. The student will also have the opportunity to participate in educational activities.

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Clinical Pharmacy

المحكورية المحكورية المحكورية المحكورية العالمي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم وحدة التطوير وضمان الجودة

I.	Course Intended learning outcomes (CILOs) of the course	Referenced PILOs
Knowl able to:	edge and Understanding: Upon successful completion of the cour	rse, students will be
a.1	Understand the role and responsibilities of a clinical pharmacist in the pre and post- operative settings.	A1, A5
a.2	Define the desired outcomes and rational drug therapy of the DVT prophylaxis, PONV, pain, medication adjustments pre and post surgeries, antimicrobial surgical prophylaxis and basic concepts of local and general anesthesia.	A1, A5
	B. Intellectual Skills: Upon successful completion of the course, sto:	tudents will be able
b.1	Design rational pharmacotherapy regimens to optimize the clinical outcomes for surgery patients.	B 2
b.2	Explain monitoring plan parameters of drug efficacy, adverse effects, compliance, and drug interactions.	B2
C. Prof	fessional and Practical Skills: Upon successful completion of the cou	rrse, students will be
c.1	Apply rational pharmacotherapy regimen and monitoring plan to achieve targeted therapeutic outcomes.	C 3
	D. Transferable Skills: Upon successful completion of the course able to:	, students will be
d.1	Search and interpret medical information from professional medical references and sites	D3
d.2	Communicate successfully therapeutic decisions in a teamwork	D1, D2

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Clinical Pharmacy

Faculty of Clinical Pharmacy
Department of
Unite of Development & Quality assurance



وزارة التعليم العالي والبحث العلمي جامعة 12 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم...... وحدة التطوير وضمان الجودة

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1- Define the role and responsibilities of a clinical pharmacist in the pre and post- operative settings.	 Interactive round discussion Presentations and critical readings Discussion with the Pharm. D. course Coordinator Self-learning 	- Exam - Oral Discussions - Homework and assignments
a2- Discuss the desired outcomes and rational drug therapy of the DVT prophylaxis, PONV, pain, medication adjustments pre and post surgeries, antimicrobial surgical prophylaxis and basic concepts of local and general anesthesia.	 Interactive round discussion Presentations and critical readings Discussion with the Pharm. D. course Coordinator Self-learning 	 Exam Oral Discussion Homework and assignments

(B) Alignment Course Intended Learning Of Strategies and Assessment Strategies:	utcomes of Intellectual Ski	lls to Teaching
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1- Design rational pharmacotherapy regimens to optimize the clinical outcomes for surgery patients.	- Self-learning	 Exam Pharmacy practice manual. Homework and assignments.
b2- Explain monitoring plan parameters for drug efficacy, adverse effects, compliance, and drug interactions.		 Exam Pharmacy practice manual. Homework and assignments.

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Clinical Pharmacy

Faculty of Clinical Pharmacy
Department of
Unite of Development & Quality assurance



الحَمَهُوريَّتِ الْمُعَمَّدِينَ الْمُعَمِّدِينَ الْمُعَمِّدِينَ الْمُعَلِينِ الْمُعِلِينِ الْمُعَلِينِ الْمُعِلِينِ الْمُعِلِينِ الْمُعَلِينِ الْمُعِلِينِ الْمُعِلَّيْنِ الْمُعِلِي الْمُعِلِينِ الْمُعِلِي الْمُعِلِي الْمُعِلِ

وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم وضمان الجودة

© Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:

reaching bu ategies and Assessment bu ategie	3.			
Course Intended Learning Outcomes		Teaching strategies	A	Assessment Strategies
C1- Apply rational pharmacotherapy regimen and monitoring plan to achieve targeted therapeutic		Pharmacy services	-	Pharmacy practice
outcomes.		documentation and	_	manual. Homework and
		manual completion.		assignments.
	_	Self-learning	-	Presentation

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

Course Intended Learning Outcomes	Teaching strategies Assessment Strategies
d1- Search and interpret medical information from professional medical references and sites	 Pharmacy services documentation and manual completion. Interactive case discussion Self-learning Pharmacy practice manual. Presentation oral Case Discussion
d2- Communicate successfully therapeutic decisions in a team-work.	 Clinical rounds with both residents and clinical pharmacist instructors Interactive case discussion Presentation



والخري والمناسبة المعتسات

وزارة التعليم العالي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

A - Th	eoretical Aspect:			
Order	Tasks/ Experiments	Number of Weeks	contact hours	Learning Outcomes
1	NA			

Order	Units/Topics List	Learning Outcomes	Sub Topics List (Reference)	Number of Weeks	Contact Hours (CH)
1	Guidelines For Diagnosis And Treatment Of Diabetic Foot Infection.	a 1, a 2, b1, b2, c1, d 1, d2	Infectious Diseases Society of America	Course Training Period	Of Course, Training CH
2	Antithrombotic Therapy and Prevention of Thrombosis, Updated American College of Chest Physicians Evidence-Based Clinical Practice Guidelines.	a 1, a 2, b1, b2, c1, d 1, d2	American college of chest physician.	Course Training Period	Of Course, Training CH
3	Updated Guideline for the management of postoperative nausea and vomiting.	a 1, a 2, b1, b2, c1, d 1, d2	SOGC clinical practice guideline	Course Training Period	Of Course, Training CH
4	Updated Consensus Guidelines for Managing Postoperative Nausea and Vomiting	a 1, a 2, b1, b2, c1, d 1, d2	International Anesthesia Research Society	Course Training Period	Of Course Training CH
5	Updated Practice Guidelines for Antimicrobial Prophylaxis of Urologic Surgery	a 1, a 2, b1, b2, c1, d 1, d2	American Urological Association	Course Training Period	Of Course Training CH
6	Updated Practice Guidelines for Acute Pain Management in the Perioperative Setting	a 1, a 2, b1, b2, c1, d 1, d2	American Society of Anesthesiologists Task Force on Acute Pain Management	Course Training Period	Of Course Training CH
7	Management of postoperative pain	a 1, a 2, b1, b2, c1, d 1, d2	UpToDate	Course Training Period	Of Course Training CH
8	Management of Common Opioid- Induced Adverse Effects	a 1, a 2, b1, b2, c1, d 1, d2	American family physician	Course Training Period	Of Course Training CH
9	Updated Practice Guidelines for Preoperative Fasting and the Use of Pharmacologic Agents to	a 1, a 2, b1, b2, c1, d 1, d2	American Society of Anesthesiologists	Course Training Period	Of Course Training CH

Faculty of Clinical Pharmacy



المحمكين ترافيت ت

وزارة التعليم العالى والبحث العلمي جامعة 21 سيتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قسم.... وحدة التطوير وضمان الجودة

Numbe	r of Weeks /and Units Per Semester	3 weeks	96 contact hrs.		
	Final Exam	a 1, a 2, b1, b2, c1, d 1, d2		Week 3	500 MA MIN MA MIN MAN
14	Surgical site infection	a 1, a 2, b1, b2, c1, d 1, d2	National Collaborating Centre for Women's and Children's Health, NIH.	Course Training Period	Of Course Training CH
13	Standards for postanesthesia care	a 1, a 2, b1, b2, c1, d 1, d2	American Society of Anesthesiologists	Course Training Period	Of Course Training CH
12	Overview of perioperative medication management and anesthetic choices		UpToDate	Course Training Period	Of Course Training CH
11	Insulin administration	a 1, a 2, b1, b2, c1, d 1, d2	American Diabetes Association (ADA)	Course Training Period	Of Course Training CH
10	Management of Hyperglycemia in Type 2 Diabetes- A Patient- Centered Approach: Position Statement	a 1, a 2, b1, b2, c1, d 1, d2	European Association for the Study of Diabetes, American Diabetes Association (ADA).	Course Training Period	Of Course Training CH
	Reduce the Risk of Pulmonary Aspiration: Application to Healthy Patients Undergoing Elective procedure				

I. Teaching & Assessment strategies of the course:

- Interactive round discussion
- Presentation
- Pharmacy services documentation and manual completion.
- Clinical rounds with both residents and clinical pharmacist instructors
- Oral case discussion
- Final Exam.

Faculty of Clinical Pharmacy
Department of
Unite of Development & Quality assurance



المُرْمُورِيِّ مَ الْمِيْسِيِّ مَ الْمِيْسِيِّ مَ وَزَارَةَ التعليمِ العالمي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم وصمان الجودة

II.	Assignments:			
No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1	Assignment 1: Every student will present pharmaceutical care of selected case related to course topic.	a 1, a 2, b1, b2, c1, d 1, d2	Week 2	10
2	Assignment 2: Every student group will present summary of updated guide recommendation of selected course topics	a 1, a 2, b1, b2, c1, d 1, d2	Week 3	10
	Tota	nl	4	20

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	Course Training Period	20	20 %	a 1, a2, b1, b2, c1, d1, d2
2	Adherence to Professional Attitudes	Course Training Period	10	10 %	d1, d2
3	Skills Acquired during Training	Course Training Period	20	20 %	b1, b2, c1, d1, d2
4	Formal Case Presentation	Last week of Rotation	10	10 %	a 1, a2, b1, b2, c1, d1, d2
5	General Written Examination	Last week of Rotation	40	40 %	a 1,a2, b1, b2, c1, d1
	Total		100	100%	

III. Learning Resources:

• Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).

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

- 1. Katzung, 2018. Basic & Clinical Pharmacology, ed. 14th edition.
- 2. DiPiro, J. T. (2017). Pharmacotherapy: Handbook, 10th edition, New York: McGraw-Hill Medical, United States of America.

2- Essential References.

Faculty of Clinical Pharmacy Department of Unite of Development & Quality assurance



الخماق التيتان وزارة التعليم العالى والبحث العلمى حامعة 21 سيتمير للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم....

وحدة التطوير وضمان الجودة

- 1. Lexicomp, (2018). Drug Information Handbook, 27^h edition, Lexi-Comp. U.S.A
- 2. Caroline S. Zeind and Michael G. Carvalho, 2018, Applied Therapeutics: The Clinical Use of Drugs, 11th edition.

3- Electronic Materials and Web Sites etc.

- 1. www.uptodate.com
- 3. www.ncbi.nlm.nih.gov/pubmed
- 4. Disease management guidelines (specified in lecture notes)

	X. Course Policies: (Based on the Uniform Students' By law (2007)
1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies:



The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.



Faculty of Clinical Pharmacy

Program of Doctor of Pharmacy (Pharm D)

Course Plan (Syllabus) of Hospital Training Surgery

Course No. (02.05.259)

2016/2017

I Information about	t Faculty Member Respon	nsible	for tl	ne Cou	rse:		
Name of Faculty Member	Dr. Ali Alyahawi			Office	Hour	'S	
Location& Telephone No.	775957401	SAT	SUN	MON	TUE	WED	THU
E-mail	alyahawipharm@yahoo.com						

Faculty of Clinical Pharmacy
Department of
Unite of Development & Quality assurance



الحَمْكُورِيِّ مَ الْمِيْسِيِّ مَ الْمِيْسِيِّ مَ وَزَارَةَ التعليمِ العالمي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم

قسم وضمان الجودة

1	Course Title:	Hospi	tal Training	Surge	ery	
2	Course Code & Number:	02.05	.259			
				TOTAL		
3	Credit hours:	Th.	Seminar	Pr	Tr.	TOTAL
3					96 contact	3 CH
4	Study level/ semester at which this course is offered:	Sixth Year- Second Semester				I
5	Pre –requisite (if any):	Students must have successfully completed their basic curriculum of 5th Years.				
6	Co -requisite (if any):	-				
7	Program (s) in which the course is offered:	Doctor of Pharmacy (Pharm, D.)				
8	Language of teaching the course:	English				
9	Study System	Semester based System				
10	Mode of delivery:	Regular				
11	Location of teaching the course:	Faculty of Clinical Pharmacy				

III. Course Description:

This surgery training course aims to integrate Pharm D students practice skills and the knowledge of clinical manifestations, complications, goals of pharmacotherapy and patient education in preoperational procedures, induction of anaesthesia, general anesthesia and the management of postoperative nausea and vomiting (PONV) and pain. The student will receive exposure to surgery clinical training by working with surgery preceptors and documenting cases for surgery at selected training centers. Students will have the opportunity to collect data, communicate with patients and other healthcare professionals, perform in patient clinical pharmacy services and observe at least one real life patient preparation for surgery and anaesthesia. The student will also have the opportunity to participate in educational activities.

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Frankly of Chinical Pharmacus

Faculty of Clinical Pharmacy
Department of
Unite of Development & Quality assurance



المُرْكَوَرِيْتِ الْمِيْسِيِّتِينَ وزارة التعليم العالي والبحث العلمي جامعـة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

IV. Upor	Course Intended learning outcomes (CILOs) completion of this Course, student will be able to:
a.1	Define the role and responsibilities of a clinical pharmacist in the pre and post-operative settings.
a.2	Discuss the clinical management of the DVT prophylaxis, PONV, pain, medication adjustments pre and post surgeries, antimicrobial surgical prophylaxis and basic concepts of local and general anesthesia.
b.1	Design rational pharmacotherapy regimens to optimize the clinical outcomes for surgery patients.
b.2	Explain monitoring plan parameters of drug efficacy, adverse effects, compliance, and drug interactions.
c.1	Apply rational pharmacotherapy regimen and monitoring plan to achieve targeted therapeutic outcomes.
d.1	Search and interpret medical information from professional medical references and sites
d.2	Communicate successfully therapeutic decisions in a team-work

V. Cou	rse Content:			
,	A – Theoretical A	spect:		
Order	Units/Topics List	Sub Topics List	Week Due	Contact
1				
2				
3				
4				
5				
6				
7				
8				
9	A III			
Number o	of Weeks /and Units P	er Semester 16		32

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Clinical Pharmacy Department of Unite of Development & Quality assurance



والمنكن ترافيني تا وزارة التعليم العالي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

Order	Tasks/ Experiments	References	Week Due	Contact Hours	
1	Guidelines For Diagnosis And Treatment of Diabetic Foot Infection.	Infectious Diseases Society of America	Course Training Period	Of Course Training CH	
2	Antithrombotic Therapy and Prevention of Thrombosis, Updated American College of Chest Physicians Evidence-Based Clinical Practice Guidelines.	American college of chest physician.	Course Training Period	Of Course Training CH	
3	Updated Guideline for the management of postoperative nausea and vomiting. SOGC clinical practice guideline		Course Training Period	Of Course Training CH	
4	Updated Consensus Guidelines for Managing Postoperative Nausea and Vomiting International Anesthesia Research Society		Course Training Period	Of Course Training CH	
5	Updated Practice Guidelines for Antimicrobial Prophylaxis of Urologic Surgery	American Urological Association	Course Training Period	Of Course Training CH	
6	Updated Practice Guidelines for Acute Pain Management in the Perioperative Setting	American Society of Anesthesiologists Task Force on Acute Pain Management	Course Training Period	Of Course Training CH	
7	Management of postoperative pain	UpToDate	Course Training Period	Of Course Training CH	
8	Management of Common Opioid-Induced American fami physician		Course Training Period	Of Course Training CH	
9	Updated Practice Guidelines for Preoperative Fasting and the Use of Pharmacologic Agents to Reduce the Risk of Pulmonary Aspiration: Application to Healthy Patients Undergoing Elective procedure	American Society of Anesthesiologists	Course Training Period	Of Course Training CH	
10	Management of Hyperglycemia in Type 2 Diabetes- A Patient-Centered Approach: Position Statement	European Association for the Study of Diabetes, American Diabetes Association (ADA).	Course Training Period	Of Course Training CH	
11	Insulin administration	American Diabetes Association (ADA)	Course Training Period	Of Course Training CH	

Faculty of Clinical Pharmacy



المحكوري تداليست وزارة التعليم العالى والبحث العلمي

جامعة 21 سيتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قسم.... وحدة التطوير وضمان الجودة

	Number of Weeks /and U	nits Per Semester 3	weeks	96 contact
15	Final Exam	The last week of rotation		
14	Surgical site infection	National Collaborating Centre for Women's and Children's Health, NIH.	Course Training Period	Of Course Training CH
13	Standards for postanesthesia care	American Society of Anesthesiologists	Course Training Period	Of Course Training CH
12	Overview of perioperative medication management and anesthetic choices	UpToDate	Course Training Period	Of Course Training CH

Teaching & Assessment strategies of the course: VI.

- Interactive round discussion
- Presentation
- Pharmacy services documentation and manual completion.
- Clinical rounds with both residents and clinical pharmacist instructors
- Oral case discussion
- Final Exam.

No	Assignments	Week Due	Mark
1	Assignment 1: Every student will present pharmaceutical care of selected case related to course topic.	Week 2	10
2	Assignment 2: Every student group will present summary of updated guide recommendation of selected course topics	Week 3	10
	Total		20

Faculty of Clinical Pharmacy Department of





المحكورية براهيت

وزارة التعليم العالى والبحث العلمي حامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قسم.... وحدة التطوير وضمان الجودة

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	Course Training Period	20	20 %	a 1, a2, b1, b2, c1, d1, d2
2	Adherence to Professional Attitudes	Course Training Period	10	10 %	d1, d2
3	Skills Acquired during Training	Course Training Period	20	20 %	b1, b2, c1, d1, d2
4	Formal Case Presentation	Last week of Rotation	10	10 %	a 1, a2, b1, b2, c1, d1, d2
5	General Written Examination	Last week of Rotation	40	40 %	a 1,a2, b1, b2, c1, d1
	Total		100	100%	

IV. Learning Resources:

Written in the following order: (Author - Year of publication - Title - Edition - Place of publication -Publisher).

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

- 3. Katzung, 2018. Basic & Clinical Pharmacology, ed. 14th edition.
- 4. DiPiro, J. T. (2017). Pharmacotherapy: Handbook, 10th edition, New York: McGraw-Hill Medical, United States of America.

2- Essential References.

- 3. Lexicomp, (2018). Drug Information Handbook, 27^h edition, Lexi-Comp. U.S.A
- 4. Caroline S. Zeind and Michael G. Carvalho, 2018, Applied Therapeutics: The Clinical Use of Drugs, 11th edition.

3- Electronic Materials and Web Sites etc.

- 1. www.uptodate.com
- 3. www.ncbi.nlm.nih.gov/pubmed
- 4. Disease management guidelines (specified in lecture notes)

Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance



(الجمهورت براهية وزارة التعليم العالى والبحث العلمى جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم.... وحدة التطوير وضمان الجودة

V. Course Policies:

Attendance policies::

- Students are allowed to be absent for not more than 10% of rotation period with an excuse.
- In each training course the students will be divided into groups. Each group will undergo training in the hospital for two weeks -daily (Saturday-Wednesday), from (8.00 AM-2:00 PM). Students will require doing the following during their internship:
 - 1- Students must attend a minimum of 2 teaching rounds per week.
 - 2- Students will be responsible for one full case 1st week (follow up until DISCHARGE), then two cases per week.
 - 3- Students must conduct full patient interview and counselling for full case, otherwise case will not be accounted for, and student must submit another case or receive a "zero" for that certain case.
 - 4- Students must pick their main full case within the first 2 days of the week (Sunday or Monday), By Tuesday, they must have read about the disease and medications and prepared primary PCP. Students will be asked about their cases and input on their cases during the week.
 - 5- Students must attend daily morning report and clinical pharmacy round and be prepared for any questions the preceptor may have regarding their case as well as cases that other members of their group have.
 - 6- Students will have a weekly case discussion (during same week of particular cases) with their supervisor and must be fully prepared. Anything regarding disease, pharmacotherapy or pharmacology of drugs may be asked.
 - 7- Students will be assigned a topic by their preceptor in whom they must prepare a brief presentation (no longer than ten minutes). There will be one presentation per student per rotation. Topic will be assigned by preceptor.
 - 8- Attendance will be taken daily, and a tardiness of 15 minutes or more will be considered an absence.
 - 9- If a student is caught cheating or filling manual with false data then he/she will receive a zero in the area they are caught cheating in.

2 Tardy:

Being 15 minutes late for two days is considered as one absence

One absence is given first warning

Two absences merits dismissing student from class

Faculty of Clinical Pharmacy



والفركفي ويتستر العيشيتان وزارة التعليم العالي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

وحدة التطوير وضمان الجودة

3	Exam Attendance/Punctuality: Will result in zero achievement unless health report or other
	significant excuse is documented.
4	Assignments & Projects:
	-
5	Cheating: Penalty of cheating includes all of the following:
	1. Students failure in the course
	2. Cancelation of all courses registered in the same semester
	3. Separation from university for one semester following the semester in which the student tries
	to cheat and this means that one academic year will be lost for just trying to cheat.
6	Plagiarism: Plagiarism or any other form of cheating in examinations, term tests or academic
	work is subject to serious academic penalty
7	Other policies:
	- No side talks during rotations
	- No mobile phones during rotations
	- Before training, it is mandatory to get blood tests for Hepatitis B, C and HIV.

Republic of Yemen

Ministry of Higher Education & Scientific Research

21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of Therapeutics (3)

Course No. (02.01.218)

2016/2017

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Hassan Al-Mahbashi	Dr. Harry	Dr. Abdulelah Thabet	. Dr. Ali Alyahawi
		AR	AAD	
				tain Not 3
				The Columbia

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance



وحدة التطوير وضمان الجودة

I. Course Identification and General Information:

1	Course Title:	Therapeutics (3)				
2	Course Code & Number:	02.01.218				
		Credit	Theory	y Hours		
3	Credit Hours:	Hours	Lecture	Exercise	Practical	
		3	2		2	
4	Study Level/ Semester at which this Course is offered:	5 Level / 1 Semester				
5	Pre -Requisite (if any):	Pharmacology-IV				
6	Co. Dogwieite (if env)	Case Studies in Therapeutics (3):				
U	Co -Requisite (if any):	"case-based seminars"				
7	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm I				
8	Language of Teaching the Course:	English				
9	Study System:	Semeste	r based Sys	tem	2	
10	Mode of Delivery:	Full Tim	ie			
11	Location of Teaching the Course:	Faculty of Clinical Pharmacy				
12	Prepared by:	Dr. Ali Alyahawi				
13	Date of Approval:					

II. Course Description:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy

 M A S

وزارة التعليم العالي والبحث العلمي وزارة التعليم العالي والبحث العلمي المعسدة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم......

قسم..... وحدة التطوير وضمان الجودة

The course content is supportive for pharmacy practice and integrated cases III course and is complementary to pathophysiology and pharmacology courses. The course content aims to understand the pathophysiology, clinical presentations, complications, goals of therapy, and rational pharmacotherapy regimens of respiratory / GIT diseases/bones and joints diseases.

	III. Course Intended Learning Outcomes (CILOs)	Referenced PILOs Learning out of program
A. K to:	nowledge and Understanding: Upon successful completion of the cou	ırse, students will be able
a1	Describe the pathophysiology, clinical presentations, and prognosis of respiratory/ GIT diseases/ Bones and Joints diseases	A1
a2	Define the goals of therapy for respiratory / GIT diseases/Bones and Joints diseases.	A3, A4, A5, A7
B. In	tellectual Skills: Upon successful completion of the course, studer	its will be able to:
b1	Construct appropriate drugs regimen and monitoring plan of respiratory / GIT diseases/Bones and Joints diseases.	B2, B3, B5, B6
C. Pi	rofessional and Practical Skills: Upon successful completion of the co	ourse, students will be able
c1	Implement rational pharmacotherapy regimens and monitoring parameters to achieve targeted therapeutic goals of Respiratory/GIT diseases/Bones and Joints diseases.	C2, C3. C5. C6
c2	Evaluate drug therapy and the outcomes of an implemented pharmacotherapeutic plan	C6
D. Tı	ransferable Skills: Upon successful completion of the course, stud	ents will be able to:
d1	Search and interpret properly medical information from professional medical references	D2
d2	Share successfully therapeutic decisions in a healthcare team.	D1

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of
Unite of Development & Quality assurance



كلية الصيدلة السريرية

وحدة التطوير وضمان الجودة

(A) Alignment Course Intended Learning Outcor to Teaching Strategies and Assessment Strategies		lerstanding
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1- Describe the pathophysiology, clinical presentations, and prognosis of respiratory/ GIT diseases/ Bones and Joints diseases.		Exam Assignment Quiz
a2- Define the goals of therapy for respiratory / GIT diseases/Bones and Joints diseases.	Lecture Instructor – student Interactive Office hour	Exam Assignment Quiz

(B) Alignment Course Intended Learning Outcome Strategies and Assessment Strategies:	s of Intellectual Skills to Tea	ching
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1- Construct appropriate drugs regimen and monitoring plan of respiratory / GIT diseases/Bones and Joints diseases.	Lecture Instructor – student Interactive Exercises Solving Problem Methods	Problem- Solving Exercises. Assignment Quiz

(C) Alignment Course Intended Learning Outcomes Teaching Strategies and Assessment Strategies: Course Intended Learning Outcomes	of Professional and Practi Teaching strategies	Assessment Strategies
C1- Implement rational pharmacotherapy regimens and monitoring parameters to achieve targeted therapeutic goals of Respiratory/ GIT diseases/Bones and Joints diseases.	Lecture Instructor – student Interactive Self-Learning	Exam Assignment Quiz
C2- Evaluate drug therapy and the outcomes of an implemented pharmacotherapeutic plan	Lecture Instructor – student Interactive Self-Learning	Exam Assignment Quiz

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance



وزارة التعليم العالى والبحث العلمي ـة 21 سبتمبر للعلوم الطبية والتطب كلية الصيدلة السريرية قسم.....

وحدة التطوير وضمان الجودة

(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:							
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies					
d1- Search and interpret properly medical information from professional medical references	Self-Learning Seminar Exercises	Presentation Assignment					
d2- Share successfully therapeutic decisions in team-work.	Seminar Instructor—student Interactive Exercises	Presentation					

IV. Course Content: A - Theoretical Aspect: Learning **Units/Topics** Number Contac Order Outcome **Sub Topics List** List of Weeks t Hours Peptic Ulcer Disease (PUD) Gastroesophageal Reflux Disease (GERD) 1 2 Ulcerative colitis (UC) a 1, a 2, 1 2 Crohn's Disease (CD) b1,c1, 1 **GIT** diseases c2, d1, d Irritable Bowel Syndrome (IBS) 2 2 Complications of Cirrhosis 2 4 Clinical Presentation and Diagnosis of Viral 1 2 Hepatitis a 1, a 2, Midterm 2 b1, c1, 1 2 Exam c2, d1 3 **GIT** diseases - Management of Viral Hepatitis 1 2 1 2 Bronchial Asthma a 1, a 2, Respiratory b1, c1, 4 diseases c2, d1, d - Chronic Obstructive Pulmonary Disease 2 1 2 (COPD) 1 2 Osteoporosis a 1, a 2, b1,,c1, Bones and 5 2 Joints diseases c2, d1, Rheumatoid Arthritis (RA) 1 d2

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



وللم كالحرك المستستان

وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قسم..... وحدة التطوير وضمان الجودة

			- Gout and Hyperuricemia - Musculoskeletal Disorders	1	2
6	Final Exam	a1, a2,b1, c1,c2, d1		1	32
Numbe	r of Weeks /and U	Inits Per Sen	nester	16	32

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (<u>C</u> ILOs)
		- Peptic Ulcer Disease (PUD)	1	2	
GIT diseases cases		(IRD)		2	
				2	a1, a2, b1, b2, c1, c2,
	2			d1, d2	
		 Viral Hepatitis 	2	4	
		 Portal Hypertension and Cirrhosis 	1	2	_
2	Midterm Exam		1	2	a1, a2, b1, b2, c1, d1
3	GIT diseases cases	Portal Hypertension and Cirrhosis	1	2	a 1, a2, b1, b2, c1, c2, d1, d2
4		- Asthma	1	2	10

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



المحكى تستست

وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (<u>C</u> ILOs)
	Respiratory diseases cases	Chronic Obstructive Pulmonary Diseases (COPD)	1	2	a1, a2, b1, b2, c1, c2, d1, d2
		Osteoporosis	-1	2	
_	Bones and Joints diseases cases	Osteoarthritis (OA)	1	2	a1, a2, b1, c1, c2, d1,
3		Rheumatoid Arthritis (RA)	1	2	d2
		Gout and Hyperuricemia	1	2	
6	Final Theoretical Exam		1	2	a1, a2, b1, c1, c2, d1
	Number of Week	cs /and Units Per Semester	16	32	

C. Tutorial Aspect: (ان وجدت)

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	NA			
2	1-			
3	2-			
4	3-			
5	4-			
6	5-			=
7	6-			
8	7-			

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of Unite of Development & Quality assurance



له 21 سيتمبر للعلوم الطبية والتط كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
9	8-			
10	9-			
Ŋ	Number of Weeks /and Units Per Semester			

V. Teaching Strategies of the Course:

- Lecture
- Instructor student Interactive
- Exercises
- Presentation
- Office hours
- Seminar
- Assignment
- Self-Learning

VI. Assessment Methods of the Course:

- Assignments
- Quiz
- Exam

	VII. Assignments:			
No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1	Assignment 1: Develop Pharmaceutical Care plan for patient with IBD	a 1, a 2, b1, ,c1, c2, d 1, d 2	3th	2.5
2	Assignment 2: Develop Pharmaceutical Care plan for patient with bronchial asthma	a 1, a 2, b1, ,c1, , c2d 1, d 2	6th	2.5
3	Assignment 3: Develop Pharmaceutical Care plan for patient with HE	a 1, a 2, b1, ,c1, c2, d 1, d 2	9th	2.5
4	Assignment 4: Develop Pharmaceutical Care plan for patient with hepatitis B	a 1, a 2, b1, ,c1, c2, d 1, d 2	13th	2.5

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance

MASS ASS

وزارة التعليم العالي والبحث العلمي المعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم...... وضمان الجودة

n	- 4		
ш.	١T	a	ш

10

VII	VIII. Schedule of Assessment Tasks for Students During the Semester					
No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes	
1	Assignments	3 rd , 13 th	10	10%	a1, a 2, b1,, b2, c1, d 1, d 2	
2	Practical Reports	2 nd -13 th	5	5%	a 1, a 2, b1,c1, c2	
3	Midterm Exam (Theory)	Week 7	10	10%	a 1, a 2, b1,c1, d 2	
4	Final Practical Exam	14 th	20	15%	a1, a2, c1, c2	
5	Final Exam (Theory)	Week 16	50	50%	a 1, a 2, b1,b2, ,c1, d 2	
	Total		100	100%		

IX. Learning Resources:

• Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).

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

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1- DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed. edition.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Walk Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

- 1- www.accesspharmacy.com
- 2- Disease management guidelines (specified in lecture notes)

X. Course Policies: (Based on the Uniform Students' By law (2007)

Class Attendance:

1

Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy



وحدة التطوير وضمان الجودة

2	Tardiness:
2	A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
	Exam Attendance/Punctuality:
3	No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
	Assignments & Projects:
4	Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
	Cheating:
5	Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
	Forgery and Impersonation:
6	Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
	Other policies:
7	The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance



وزارة التعليم العالى والبحث العل له 21 سبتمبر للعلوم الطبية والته كلية الصيدلة السريرية قسم.....

وحدة التطوير وضمان الجودة

Republic of Yemen

Ministry of Higher Education & Scientific Research 21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Program of Clinical Pharmacy & Pharm. D.

Course Plan (Syllabus) of Pharmacotherapy-III

Course No. (02.01.218)

2016/2017

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance



كلية الصيدلة السريرية قسم.....

وحدة التطوير وضمان الجودة

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

Course Identification and General Information:

1	Course Title:	Therape	utics (3)		
2	Course Code & Number:	02.01.218			
		Credit	Theory	y Hours	
3	Credit Hours:	Hours	Lecture	Exercise	Practical
		3	2		2
4	Study Level/ Semester at which this Course is offered:	5 Level / 1 Semester			
5	Pre -Requisite (if any):	Pharmacology-IV			
6	Co -Requisite (if any):	Case Studies in Therapeutics (3): "case-based seminars"			:
7	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm			& Pharm D
8	Language of Teaching the Course:	English			
9	Study System:	Semester based System			
10	Mode of Delivery:	Full Tim	ie	2	
11	Location of Teaching the Course:	Faculty	of Clinical F	Pharmacy	
12	Prepared by:	Dr. Ali	Alyahawi		

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy

13	Date of Approval:	

III. Course Description:

The course content is supportive for pharmacy practice and integrated cases II course and is complementary to pathophysiology and pharmacology courses and is. The course deals with the study of pathophysiology, clinical presentations, the therapeutic goals, rational pharmacotherapy regimen, the standard therapeutic plans, and patient education for selected endocrine and renal diseases.

IV. Course Intended Learning Outcomes (CILOs): Upon successful completion of the Course, student will be able to:

A. Kn to:	owledge and Understanding: Upon successful completion of the course,	students will be able
al	Define the pathophysiology, clinical presentations, and prognosis of endocrine and renal diseases.	AI
a2	Describe the target goals of therapy for endocrine and renal diseases	A3, A4, A5, A7
a3	Determine the rational pharmacotherapy regimen for treatment of endocrine and renal diseases	A5, A7
B. Int	ellectual Skills: Upon successful completion of the course, students v	vill be able to:
b1	Construct appropriate drugs regimen and monitoring plan of endocrine and renal diseases	B2, B6
C. Proto:	ofessional and Practical Skills: Upon successful completion of the cours	e, students will be able
c1	Use properly drugs regimen and monitoring parameters to achieve targeted therapeutic outcomes of endocrine and renal diseases	С3

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



الفركه في المسترين ال

وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

c2	Provide a correct drugs information to the health care team and the patients	C4
	D. Transferable Skills: Upon successful completion of the course, str	idents will be able
d1	Search properly medical information from professional medical references	D2
d2	Share successfully therapeutic decisions in team-work.	D1

V. Course Contents:

A. Theoretical Aspect:

Order	Units/Topics List	Sub Topics List	Number of Weeks	Contact
		Diabetes Mellitus Type IDiabetes Mellitus Type II	2	2
1 Er	Endocrine Diseases	HypothyroidismHyperthyroidism	2	4
		- Adrenal Gland Disorders	1	2
		- Pituitary Gland Diseases	2	2
2	Midterm Exam		1	2
3	Endocrine Diseases	- Pituitary Gland Diseases	1	2
		- Acute Kidney Injury	1	2
4	Renal Diseases	CKD StagesComplications of CKD	3	6
		- Fluids and Electrolytes	1	2
		- Acid-Base Disturbances	2	4
5	Final Exam		1	2
	Number of W	eeks /and Units Per Semester	16	32

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



والخركات ترافيت ت وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قسم.... وحدة التطوير وضمان الجودة

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
	Cases study of endocrine diseases - Diabetes Mellitus - Hypothyroidism - Hyperthyroidism	Diabetes Mellitus type 1Diabetes Mellitus type II	3	6
1		1.0	2	4
		- Adrenal Gland Disorders	2	4
2	Midterm Exam		1	2
3	Cases study of endocrine diseases	- Pituitary Gland Disorders	1	2
		- Acute Kidney Injury	1	2
4	Cases study of renal diseases	Estimation of CKD Stages Complication of CKD	3	6
		Fluids and Electrolytes	1	2
		Acid–Base Disturbances	1	2
5	Final Theoretical Exam		1	2
	Number of Weeks /and	Units Per Semester	16	32

C. Tutorial Aspect:

No.	Tutorial	Number of Weeks	Contact Hours
1	NA		
2			
3			

Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi
	**************************************	Dr. Abdulelah Thahet Dr	, and a second control equation of the second control equation

Republic of Yemen Ministry of Higher Education & Scientific Research

21 SEPTEMPER UMAS **Faculty of Faculty of Clinical Pharmacy**



الفيكارت ترافيت وزارة التعليم العالي والبحث العلمي

جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قَسم.... وحدة التطوير وضمان الجودة

No.	Tutorial	Number of Weeks	Contact Hours
4			
5			
6			
7			
8			
9			
10			N/A
Num	ber of Weeks /and Units Per Semester		

VI. Teaching Strategies of the Course:

Lecture		
Instructor -	student	Interactive

Exercises

Presentation

Office hours

Seminar

Assignment

- Self-Learning

VII. Assessment Methods of the Course:

Assignments	
Quiz	
Exam	

VIII. Assignments:

Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi
			, and a second control equality unions

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



المُحَكَمُ وَرِيَّ مَ الْمُحَكَمُ وَالْمِنَ الْمُحَكَمُ وَالْمِنَ الْمُعْلَمِ وَالْمِنْ الْعُلْمِي والبحث العلمي والمحسدة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم وحدة التطوير وضمان الجودة

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	3 rd , 13 th	10	10%
2	Practical Reports	2 nd -13 th	5	5%
3	Midterm Exam (Theory)	Week 7	10	10%
4	Final Practical Exam	14 th	20	15%
5	Final Exam (Theory)	Week 16	50	50%
	Total		100	100%

X. Learning Resources:

• Written in the following order: (Author - Year of publication - Title - Edition - Place of publication - Publisher).

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

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1- DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed. edition.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Wall Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

- 1- www.accesspharmacy.com
- 2- Disease management guidelines (specified in lecture notes)

XI. Course Policies: (Based on the Uniform Students' Bylaw (2007)

Class Attendance:

Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of
Unite of Development & Quality assurance



المخافي سيت تاليست وزارة التعليم العالي والبحث العلمي ـة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم.... وحدة التطوير وضمان الجودة

2	Tardiness:
2	A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
	Exam Attendance/Punctuality:
3	No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
	Assignments & Projects:
4	Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
	Cheating:
5	Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
	Forgery and Impersonation:
6	Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
	Other policies:
7	The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy



13	Date of Approval:	

III. Course Description:

The course content is supportive for pharmacy practice and integrated cases III course and is complementary to pathophysiology and pharmacology courses. The course content aims to understand the pathophysiology, clinical presentations, complications, goals of therapy, and rational pharmacotherapy regimens of respiratory / GIT diseases/bones and joints diseases.

IV. Course Intended Learning Outcomes (CILOs):

Upon successful completion of the Course, student will be able to:

A. K	nowledge and Understanding: Upon successful completion of the cou	ırse, students will be able
to:		
al	Describe the pathophysiology, clinical presentations, and prognosis of respiratory/ GIT diseases/ Bones and Joints diseases	A1
a2	Define the goals of therapy for respiratory / GIT diseases/Bones and Joints diseases.	A3, A4, A5, A7
B. In	tellectual Skills: Upon successful completion of the course, studer	its will be able to:
b1	Construct appropriate drugs regimen and monitoring plan of respiratory / GIT diseases/Bones and Joints diseases.	B2, B3, B5, B6
C. Pr to:	ofessional and Practical Skills: Upon successful completion of the co	ourse, students will be able
c1	Implement rational pharmacotherapy regimens and monitoring parameters to achieve targeted therapeutic goals of Respiratory/ GIT diseases/Bones and Joints diseases.	C2, C3. C5. C6
c2	Evaluate drug therapy and the outcomes of an implemented pharmacotherapeutic plan	C6
D. Tr	ansferable Skills: Upon successful completion of the course, stud	ents will be able to:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



للخرهي ريت به لايست به

وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قسم..... وحدة التطوير وضمان الجودة

d1	Search and interpret properly medical info	mation from
	professional medical references	D2
d2	Share successfully therapeutic decisions in a health	care team. D1

V. Course Contents:

A. Theoretical Aspect:

Order	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		- Peptic Ulcer Disease (PUD)	1	2
		- Gastroesophageal Reflux Disease (GERD)	1	2
1	CIT	- IBD: Ulcerative colitis (UC) and Crohn's Disease (CD)	1	2
1	GIT diseases	- Irritable Bowel Syndrome (IBS)	1	2
		- Complications of Cirrhosis	2	4
		- Clinical Presentation and Diagnosis of Viral Hepatitis	1	2
2	Midterm Exam		1	2
3	GIT diseases	- Management of Viral Hepatitis	1	2
		- Bronchial Asthma	1	2
4	Respiratory diseases	- Chronic Obstructive Pulmonary Disease (COPD)	1	2
		- Osteoporosis	1	2
5	Bones and Joints diseases	- Rheumatoid Arthritis (RA)	1	2
		- Gout and Hyperuricemia	1	2

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy



الفري المراجة المعتسان

وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قىىم..... وحدة التطوير وضمان الجودة

	- Musculoskeletal Disorders	1	2
6	Final Exam	1	32
Numbe	r of Weeks /and Units Per Semester	16	32

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contac
		- Peptic Ulcer Disease (PUD)		2
		- Gastroesophageal Reflux Disease (GERD)	1	2
	GIT diseases	- Inflammatory Bowel Disease (IBD)	1	2
1	cases	Irritable Bowel Syndrome (IBS)	1	2
		- Viral Hepatitis	2	2 4 2 2 2
		Portal Hypertension and Cirrhosis	1	2
2	Midterm Exam	1	2	
3	GIT diseases cases	Portal Hypertension and Cirrhosis	1	2
	Dogwington	– Asthma	1	2
4	Respiratory diseases cases	 Chronic Obstructive Pulmonary Diseases (COPD) 	1	2
		- Osteoporosis	1	2
5	Bones and Joints	Osteoarthritis (OA)	1	2
J	diseases cases	 Rheumatoid Arthritis (RA) 	1	2
		 Gout and Hyperuricemia 	1	2

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



للحكون بتركيست وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
6	Final Theoretical Exam		1	2
	Number of Weeks	/and Units Per Semester	16	32

VI. Teaching Strategies of the Course:

Lecture

Instructor - student Interactive

Exercises

Presentation

Office hours

Seminar

Assignment

Self-Learning

VII. Assessment Methods of the Course:

Assignments	
Quiz Exam	
Exam	

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



المختفي وستنتان وزارة التعليم العالي والبحث العلمي ـة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم....

وحدة التطوير وضمان الجودة

VIII. Assignments:

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	3 rd , 13 th	10	10%
2	Practical Reports	2 nd -13 th	5	5%
3	Midterm Exam (Theory)	Week 7	10	10%
4	Final Practical Exam	14 th	20	15%
5	Final Exam (Theory)	Week 16	50	50%
()(1.5)	Total		100	100%

X. Learning Resources:

Written in the following order: (Author - Year of publication - Title - Edition - Place of publication -Publisher).

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

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1- DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed. edition.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Walk Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

- 1- www.accesspharmacy.com
- 2- Disease management guidelines (specified in lecture notes)

Course Policies: (Based on the Uniform Students' Bylaw (2007)

Class Attendance:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

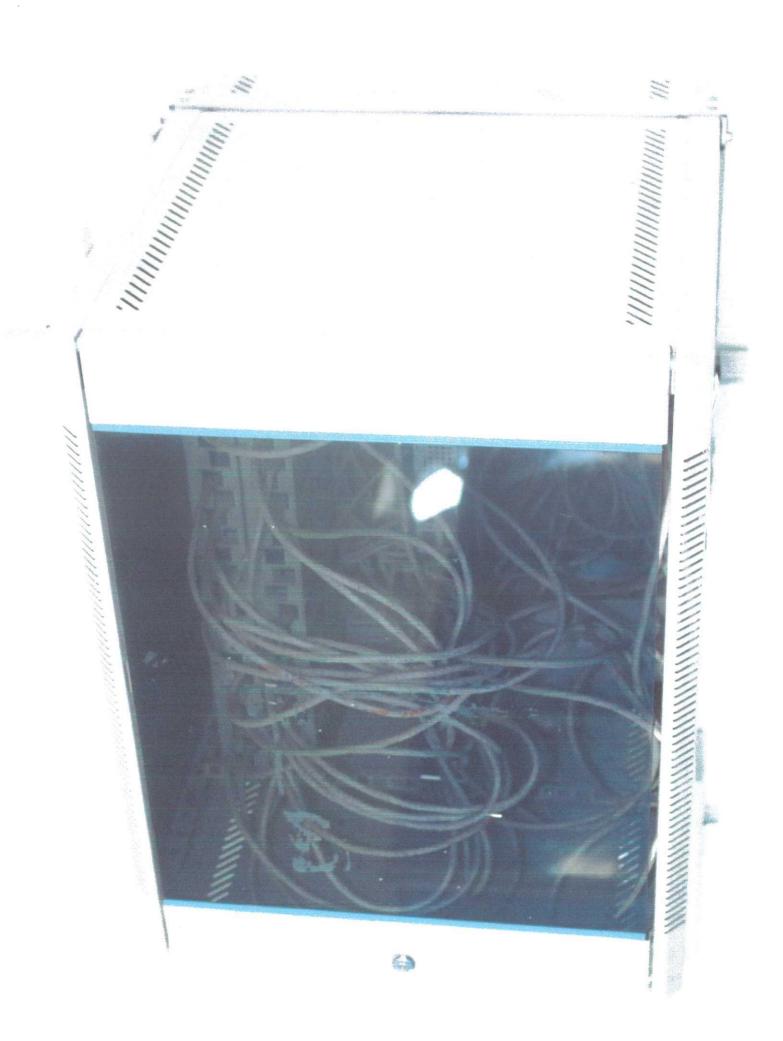
Faculty of Faculty of Clinical Pharmacy



والخراف براهيئيت وزارة التعليم العالي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم.... وحدة التطوير وضمان الجودة

	Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi



Republic of Yemen

Ministry of Higher Education & Scientific Research
21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of Therapeutics (4)

Course No. (02.01.220)

2016/2017

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Hassan Al Mahbashi	Dr. Flavery	Dr. Abdulelah Thabet	Dr Alitatvahawi
		A A	ALL	
		6		Contraction of a
				21 is

Faculty of Faculty of Clinical Pharmacy



وزارة التعليم العالي والبحث العلمي ـة 21 سبتمبر للعلوم الطبية والتطّ كلية الصيدلة السريرية

وحدة التطوير وضمان الجودة

I. Course Identification and General Information:

1	Course Title:	Therapeutics (4)				
2	Course Code & Number:	02.01.220				
		Credit	Theory Hours		Lab.	
3	Credit Hours:	Hours	Lecture	Exercise	Hours	
		3	2		2	
4	Study Level/ Semester at which this Course is offered:	5 Level / 2 Semester				
5	Pre -Requisite (if any):	Pharmacology IV				
6	Co -Requisite (if any):	Cases Studies of Therapeutics (4): "case-based seminars"				
7	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm. D.				
8	Language of Teaching the Course:	English				
9	Study System:	Semeste	r based Sys	tem		
10	Mode of Delivery:	Full Time				
11	Location of Teaching the Course:	Faculty of Medical Sciences				
12	Prepared by:	Dr. Ali A	Alyahawi			
13	Date of Approval:					

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance



رَضِ هُوَ مُورِيَ مِنْ الْمُحِيْدِيَ الْمُحْدَّ الْمُحْدَّ الْمُحْدَّ الْمُحْدِثِ الْمُحْدِثِ الْمُحْدِثِ الْم جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم...... وحدة التطوير وضمان الجودة

II. Course Description:

The course content is supportive for pharmacy practice and integrated cases III course and complementary to pathophysiology and pharmacology courses. The course content aims to understand the knowledge of the pathophysiology, clinical manifestations, and therapeutics of Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.

	III. Course Intended Learning Outcomes (CILOs)	Referenced PILOs Learning out of program
A. K to:	nowledge and Understanding: Upon successful completion of the cour	rse, students will be able
a1	Describe the clinical manifestations, pathophysiology, and complication of Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.	A1
a2	Define the target goals of therapy for Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.	A3, A4, A5, A7
B. In	tellectual Skills: Upon successful completion of the course, student	s will be able to:
b1	Design the appropriate drugs regimens and monitoring plans for Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.	B2, B3, B5, B6
C. Pr	ofessional and Practical Skills: Upon successful completion of the cou	rrse, students will be able
c1	Apply properly drug regimens and monitoring parameters to achieve targeted treatment goals of Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health	C2, C3. C5. C6
D. Tr	ansferable Skills: Upon successful completion of the course, stude	nts will be able to:
d1	Search efficiently in professional medical references and sites	D1. D2. D3

Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi
	8-4 (Sec. 14) (Control of Sec. 14)	Dr. Abdulalah Thabat	, , , , , , , , , , , , , , , , , , ,

Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance



وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم...... وحدة التطوير وضمان الجودة

Communicate effectively with healthcare professionals and patients d2 D1

(A) Alignment Course Intended Learning Teaching Strategies and Assessment Stra Course Intended Learning Outcomes	Outcomes of Knowledge and Unotegies: Teaching strategies	Assessment Strategies
a1- Describe the clinical manifestations, pathophysiology, and complication of Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.	 Instructor – student Interactive 	ExamAssignmentQuiz
a2- Define the target goals of therapy for Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.		ExamAssignmentQuiz

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:						
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies				
b1- Design the appropriate drugs regimens and monitoring plans for Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.		Problem-Solving Exercises. Assignment Quiz				

(C) Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:						
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies				
C1- Apply properly drug regimens and monitoring parameters to achieve targeted treatment goals of Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health		Exam Assignment				

(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:						
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies				
d1- Search efficiently in professional medical references and sites	Self-Learning Seminar Exercises	Presentation Assignment				
d2- Communicate effectively with healthcare professionals and patients	Seminar Instructor–student Interactive	Presentation				

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance

Number of Weeks /and Units Per Semester



وزارة التعليم العالي والبحث العلمي ـة 21 سبتمبر للعلوم الطبية والتط كلية الصيدلة السريرية

قسم...... وحدة التطوير وضمان الجودة

Exercises **IV. Course Content:** A - Theoretical Aspect: Units/Topics Number Contac Order **Learning Outcomes Sub Topics List** List of Weeks t Hours **Epilepsy** Neurologic al, a 2, bl, cl, dl, d 3 Parkinson Disease 6 Diseases Alzheimer Disease (AD) Sleep Disorders **Psychiatric** a1, a2, b1, c1, d1, d 2 Major Depressive Disorder 4 8 Diseases Anxiety Disorder Midterm 3 a1, a2, b1, ,c1, d1 1 2 Exam **Psychiatric** a1, a 2, b1, c1, d 1, d 4 Schizophrenia Diseases 2 4 Therapeutic Considerations in 2 Pregnancy and Lactation: Birth control 2 4 Woman and Menstruation-Related 1 2 5 a1, a2, b1, c1, d1, d2 Man Health Disorders Hormone Therapy 1 2 Menopause **Final Exam** a 1, a 2, b1, , c1, d 1 2 1

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

32

16

Faculty of Faculty of Clinical Pharmacy



وحدة التطوير وضمان الجودة

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Cases study of Neurologic Disorders	EpilepsyParkinson DiseaseAlzheimer Disease (AD)	3	6	a1, a2, b1, c1, d1, d2
2	Cases study of Psychiatric Disorders	Sleep DisordersMajor Depressive DisorderAnxiety DisorderSchizophrenia	4	8	a1, a2, b1, c1, d1, d2
3	Midterm Exam		1	2	a1, a2, b1, c1, d1
4	Cases study of Woman and Man Health	 Menstruation-Related Disorders Hormone Therapy in Menopause Women Infertility & Men Sexual Dysfunction 	7	14	a1, a2, b1, c1, d1, d2
5	Final Theoretical Exam		1	2	a1, a2, b1, c1, d1
	Number of Weeks /an	d Units Per Semester	16	32	

C. Tutorial Aspect: (ان وجدت)

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	NA			
2	1-			
3	2-			-
4	3-			

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance



وزارة التعليم العالي والبحث العلمي لة 21 سبتمبر للعلوم الطبية والتطُّب كلية الصيدلة السريرية وحدة التطوير وضمان الجودة

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
5	4-			
6	5-			
7	6-			
8	7-			
9	8-			
10	9-			
N	Sumber of Weeks /and Units Per Semester			

V. Teaching Strategies of the Course:

- Lecture
- Instructor student Interactive
- Exercises
- Presentation
- Office hours
- Seminar
- Assignment
- Self-Learning

VI. Assessment Methods of the Course:

- Assignments
- Quiz
- Exam

VII. Assignments:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of Unite of Development & Quality assurance



وزارة التعليم العالي والبحث العلمي وزارة التعليم العالي والبحث العلمي المعسدة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم وحدة التطوير وضمان الجودة

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1	Assignment 1: Develop Pharmaceutical Care plan for patient with Parkinson disease	a 1, a 2, b1,c1, d1, d 2	3th	2.5
2	Assignment 2: Develop Pharmaceutical Care plan for patient with Anxiety Disorders	a1, a 2, b1,c1, d1, d 2	6th	2.5
3	Assignment 3: Develop Pharmaceutical Care plan for pregnant with DM	a1, a2, b1,c1, d 1, d 2	9th	2.5
4	Assignment 4: Compare between different Hormone Therapy in Menopause	a1, a2, b1,c1, d 1, d 2	13th	2.5
	Total			10

VI	VIII. Schedule of Assessment Tasks for Students During the Semester							
No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes			
1	Assignments	3 rd , 9 th	10	10%	a 1, a 2, b1,c1, d 1, d 2			
2	Practical Reports	2 nd -13 th	5	5%	a 1, a 2, b1,c1, d 2			
3	Midterm Exam (Theory)	Week 7	10	10%	a 1, a 2, b1,c1, d 2			
4	Final Practical Exam	14 th	20	15%	a1, a2, c1, c2			
5	Final Exam (Theory)	Week 16	50	50%	a 1, a 2, b1,c1, d 2			
	Total		100	100%				

IX. Learning Resources:

• Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).

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

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1- DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed. edition.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Walk Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



1- www.accesspharmacy.com

2- Disease management guidelines (specified in lecture notes)

	X. Course Policies: (Based on the Uniform Students' By law (2007)
1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy Department of

Unite of Development & Quality assurance

MAS MAS

Republic of Yemen

Ministry of Higher Education & Scientific Research

21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of Therapeutics (4)

Course No. (02.01.220)

2016/2017

I. Information about Faculty Member Responsible for the Course:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

M A S

و الشَّمْ هُوَ رَسَيْتَ رَالْمِيْسَيْتَ رَبِّ وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم...... وحدة التطوير وضمان الجودة

Name of Faculty Member:	Dr. Ali Alyahawi	Office Hours					
Location& Telephone No.:							
E-mail:		SAT	SUN	MON	TUE	WED	THU

II. Course Identification and General Information:

1	Course Title:	Therape	utics (4)	Therapeutics (4)				
2	Course Code & Number:	02.01.22	20					
		Credit	Theor	y Hours	Lab.			
3	Credit Hours:	Hours	Lecture	Exercise	Hours			
		3	2		2			
4	Study Level/ Semester at which this Course is offered:	5 Level / 2 Semester						
5	Pre -Requisite (if any):	Pharmacology IV						
6	Co -Requisite (if any):	Cases Studies of Therapeutics (4): "casebased seminars"						
7	Program (s) in which the Course is Offered:	Bachelon D.	of Clinical	Pharmacy &	Pharm.			
8	Language of Teaching the Course:	English						
9	Study System:	Semester	based Sys	tem	V			
10	Mode of Delivery:	Full Time						
11	Location of Teaching the Course:	Faculty of Medical Sciences						
12	Prepared by:	Dr. Ali A	Myahawi					
13	Date of Approval:		П					

III. Course Description:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



The course content is supportive for pharmacy practice and integrated cases III course and complementary to pathophysiology and pharmacology courses. The course content aims to understand the knowledge of the pathophysiology, clinical manifestations, and therapeutics of Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.

IV. Course Intended Learning Outcomes (CILOs):

Upon successful completion of the Course, student will be able to:

A. I	Knowledge and Understanding: Upon successful completion of the course, students will be to:	
al	Describe the clinical manifestations, pathophysiology, and complication of Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.	T
a2	Define the target goals of therapy for Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.	
	ntellectual Skills: Upon successful completion of the course, students will be able to:	
b1	Design the appropriate drugs regimens and monitoring plans for Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health.]]]]]]]]]]]]]]]]]]]

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of

قسم..... وحدة التطوير وضمان الجودة

		, E
C. I	Professional and Practical Skills: Upon successful completion of the course, students will be to:	
cl	Apply properly drug regimens and monitoring parameters to achieve targeted treatment goals of Neurologic Disorders/ Psychiatric Disorders/ Woman and Man Health	2 , , , , , , , , ,
D. T	ransferable Skills: Upon successful completion of the course, students will be able to: Search efficiently in professional medical references and sites	
ui -	and sites	E
d2	Communicate effectively with healthcare professionals and patients	1

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Clinical Pharmacy



وزارة التعليم العالي والبحث العلمي لة 21 سبتمبر للعلوم الطبية والتط كلية الصيدلة السريرية قسم.....ق

وحدة التطوير وضمان الجودة

V. **Course Contents:**

A. Theoretical Aspect:

Order	Units/Topics List	Sub Topics List		Contact Hours
. 1	Neurologic Diseases - Epilepsy - Parkinson Disease - Alzheimer Disease (AD)		3	6
2	Psychiatric Diseases	- Sleep Disorders - Major Depressive Disorder - Anxiety Disorder		8
3	Midterm Exam		1	2
4	Psychiatric Diseases	- Schizophrenia	2	4
		- Therapeutic Considerations in Pregnancy and Lactation:	1	2
		- Birth control	2	4
5	Woman and Man Health	- Menstruation-Related Disorders	1	2
		- Hormone Therapy in Menopause	1	2
6	Final Exam		1	2
Number	of Weeks /and Units Per Ser	mester	16	32

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



وزارة التعليم العالي والبحث العلمي وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم......

فسم..... وحدة التطوير وضمان الجودة

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contac t Hours
1	Cases study of Neurologic Disorders	EpilepsyParkinson DiseaseAlzheimer Disease (AD)	3	6
2	Cases study of Psychiatric Disorders	Sleep DisordersMajor Depressive DisorderAnxiety DisorderSchizophrenia	4	8
3	Midterm Exam		1	2
4	Cases study of Woman and Man Health	 Menstruation-Related Disorders Hormone Therapy in Menopause Women Infertility & Men Sexual Dysfunction 	7	14
5	Final Theoretical Exam		1	2
	Number of Weeks /and	Units Per Semester	16	32

C. Tutorial Aspect:

No.	Tutorial	Number of Weeks	Contact Hours
1	NA		
2	10-		
3	11-		
4	12-		
5	13-		

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



وزارة التعليم العالي والبحث العلمي وزارة التعليم العالي والبحث العلمي والمعسة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم

قسم..... وحدة التطوير وضمان الجودة

No.	Tutorial	Number of Weeks	Contact Hours
6	14-		
7	15-		
8	16-		
9	17-		
10	18-		
	Number of Weeks /and Units Per Semester		

VI. Teaching Strategies of the Course:

Lecture	2		
Instructor – student Interactive			
Exercises			
Presentation			
Office hours			
Seminar			
Assignment			
Self-Learning			

VII. Assessment Methods of the Course:

Assignments		
Quiz Exam		
Exam		

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance



وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطَّ كلبة الصيدلة السريرية قسم..... وحدة التطوير وضمان الجودة

VIII. Assignments:

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	3 rd , 9 th	10	10%
2	Practical Reports	2 nd -13 th	5	5%
3	Midterm Exam (Theory)	Week 7	10	10%
4	Final Practical Exam	14 th	20	15%
5	Final Exam (Theory)	Week 16	50	50%
	Total		100	100%

X. Learning Resources:

- Written in the following order: (Author Year of publication Title Edition Place of publication -Publisher).
- 1- Required Textbook(s) (maximum two).
 - 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
 - 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.
 - 2- Essential References.
 - 1- DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed.
 - 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
 - 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Wall Whittlesea, 6th edition, 2018.
 - 3- Electronic Materials and Web Sites etc.
 - 1- www.accesspharmacy.com
 - 2- Disease management guidelines (specified in lecture notes)

XI. Course Policies: (Based on the Uniform Students' Bylaw (2007)

Class Attendance:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance



وزارة التعليم العالي والبحث العلمي جامعَ ـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم...... وحدة التطوير وضمان الجودة

	Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen

Ministry of Higher Education & Scientific Research

21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of Therapeutics (5)

Course No. (02.01.222)

2016/2017

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Hassan At Mahbashi	Dr. Henry	Dr. Abdulelah Thabet	Dr. Ali Alvaliani
		AB	AIGH	
				(((()))
			And the second	Characas A
				Medica office

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy

Department of

Unite of Development & Quality assurance



المخمكين ترافينيت وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قسم.... وحدة التطوير وضمان الجودة

I. Course Identification and General Information:

1	Course Title:	Therapeutics (5)			
2	Course Code & Number:	02.01.222			
			Theory Hours		Lab.
3	Credit Hours:	Hours	Lecture	Exercise	Hours
4	Study Level/ Semester at which this Course is offered:	3 2 2 5 th Level / 2 nd Semester			2
5	Pre -Requisite (if any):	Pharmacology IV			
6	Co -Requisite (if any):	Cases Studies in Therapeutics (5): "casebased seminars"): "case-
7	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm. D.			z Pharm.
8	Language of Teaching the Course:	English			
9	Study System:	Semester based System			
10	Mode of Delivery:	Regular-Full Time			
11	Location of Teaching the Course:	Faculty of	of Clinical P	harmacy	
12	Prepared by:	Dr. Ali A	Alyahawi		
13	Date of Approval:				

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi



II. Course Description:

The course content is supportive for pharmacy practice and integrated case based learning" courses and is complementary to pathophysiology and pharmacology courses. The course aims to improve the knowledge of the pathophysiology, clinical presentations, complications, and therapeutics of oncology and hematology conditions including venous thromboembolism, emesis, anemia, infection related to cancer, common chemotherapy regimen used for cancer, pain management, general toxicity of chemotherapy agents, coagulation disorders and Sickle Cell Disease (SCD).

]	III. Course Intended Learning Outcomes (CILOs):	Referenced PILOs
		Learning out of program
A. K to:	nowledge and Understanding: Upon successful completion of the course	, students will be able
al	Discuss the pathophysiology, clinical presentations, and complications of oncology and hematology diseases.	A1
a2	Understand the goals of therapy for oncology and hematology diseases.	A3, A4, A5, A7
B. In	tellectual Skills: Upon successful completion of the course, students	will be able to:
b1	Design the rational medication use and monitoring plan of selected oncology and hematology disease.	B2, B3, B5, B6
C. Pr	ofessional and Practical Skills: Upon successful completion of the cours	e, students will be able
c1	Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases.	C2, C3. C5. C6
D. Tr	ansferable Skills: Upon successful completion of the course, student	s will be able to:
d1	Search for updated medical information from proper medical references to manage oncology and hematology diseases	D1. D2. D3.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



d2 Communicate effectively therapeutics decisions with a teamwork and patients.

Course Intended Learning Outcomes	Teaching	strategies	Assessment Strategies
a1- Discuss the pathophysiology, clinical presentations, and complications of oncology and hematology diseases.	- Lecture - Instructor – s Interactive - Office hour	student	Exam Assignment Quiz
a2- Understand the goals of therapy for oncology and hematology diseases.	Lecture Instructor – stud Office hour	ent Interactive	Exam Assignment Quiz
(B) Alignment Course Intended Learning Out Strategies and Assessment Strategies:	comes of Intelle	ctual Skills to Te	eaching
Course Intended Learning Outcomes	Teaching	strategies	Assessment Strategies
b1- Design the rational medication use and monitoring plan of selected oncology and hematology disease	Lecture Instructor – stude Exercises Solving Problem		Problem- Solving Assignment Quiz
(C) Alignment Course Intended Learning Out Teaching Strategies and Assessment Strategies		sional and Pract	ical Skills to
Course Intended Learning Outcomes		strategies	Assessment Strategies
C1- Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases.	Lecture Instructor – studer Self-Learning	nt Interactive	Exam Assignment
(D) Alignment Course Intended Learning Out Strategies and Assessment Strategies:	comes of Transf	erable Skills to	Гeaching
Course Intended Learning Outcome	es	Teaching strategies	Assessment Strategies
d1- Search for updated medical information from references to manage oncology and hematology dis	proper medical	Self-Learning Seminar	Presentation Assignment

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Quiz

Exercises



الشَّهُ كُورِيَّ مَن الْمِيْسَوِّ مَن وزارة التعليم العالي والبحث العلمي جامعـــة 21 سيتمبر للعلوم الطبية والتطبيقية

> كلية الصيدلة السريرية قسم..... وحدة التطوير وضمان الجودة

d2- Communicate effectively therapeutics decisions with a team Work and patients.

Seminar Instructor—student Interactive

Presentation

Exercises IV. Course Content: A – Theoretical Aspect: Learni Units/Topic Number Contac Order **Sub Topics List** s List Outco of Weeks t Hours mes Overview of cancer chemotherapy 1 2 Venous thromboembolism Chemotherapy-Induced Nausea and Vomiting 1 2 (CINV) Anemia & Fatigue 1 a1, 2 Oncology a2, b1 1 Supportive ,c1, Pain management 1 2 Care d1, d2 Infection related to cancer 1 2 Common chemotherapy regimen used for cancer. 1 2 Chemoprotectants 1 2 Oncologic Emergencies a1, Midterm a2, 2 1 2 Exam b1, c1, d1 General toxicity of some chemotherapy agents: Platinium agents (ex.Cisplatin) a1, Oncology 2 4 Anthracyclines ex.doxorubucin a2, b1 3 Supportive ,c1, Vina alkaloid ex. Vincristine Care d1, d2 Methotrexate, Etoposide, Ara-C, Ifosphamide, Docetaxel, Infliximab. Anemia 1 2 al, Coagulation Disorders 2 4 Hematolog a2, b1 4 y Disorders ,c1, Sickle Cell Disease (SCD) 1 2 d1, d2 Drug-Induced Hematologic Disorders 2

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi



و المفركة والتعليم العالمي والبحث العلمي

وراره التعليم العالى والبحث التعلقي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

5	Final Exam	a1, a2, b1, c1, d1	1	2
		Number of Weeks /and Units Per Semester	16	32

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		- Common complications of cancer chemotherapy	3	6	a.1 a2 L1
	Cases study in Oncology diseases Disorders	- Acute Myeloid Leukemia (AML)	1	2	a 1, a2, b1 c1, c2, d1 d2
1		- Chronic Myeloid Leukemia (CML)	1	2	
		- Prostate Cancer	2	4	
2	Midterm Exam		1	2	a1, a2, b1 c1, d1
3	Cases study in Oncology diseases	- Breast Cancer	1	2	a 1, a2, b1 c1, c2, d1 d2
		- Anemia	2	4	
	Cases study in	- Coagulation Disorders	2	4	a 1, a2, b
4	Hematology Disorders	- Sickle Cell Disease	1	2	c1, c2, d1 d2
		- Drug-Induced Hematologic Disorders	1	2	
5	Final Theoretical Exam		1	2	a 1, a2, b c1, d1
	Number of Weeks /an	nd Units Per Semester	16	32	44

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy



للخمائن تركيست وزارة التعليم العالى والبحث العلمي ـة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم.... وحدة التطوير وضمان الجودة

C. Tutorial Aspect: (ان وجدت)

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	NA			
2	1-			
3	2-			
4	3-			
5	4-			
6	5-			
7	6-			
8	7-			
9	8-			
10	9-			
Num	aber of Weeks /and Units Per Semester			

V. Teaching Strategies of the Course:

- Lecture
- Instructor student Interactive
- Exercises
- Presentation
- Office hours
- Seminar
- Assignment
- Self-Learning

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



الشركائي رئيست المعالمي والبحث العلمي

وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم وضمان الجودة

VI. Assessment Methods of the Course:

- Assignments
- Quiz
- Exam

	VII. Assignments			
NO	Assignments	Aligned CILOs(symbols)	Week	Mark
1	Assignment 1: Develop pharmaceutical care plan for pain management of selected cases of cancer based on updated recommendations.	a1, a2, b1, ,c1, d1, d2	3th	2.5
2	Assignment 2: Develop pharmaceutical care plan for cancer patients with febrile neutropenia based on updated guidelines.	a1, a2, b1, ,c1, d1, d2	6th	2.5
3	Assignment 3: Compare between the different types of anemia	a1, a2, b1, ,c1, d1, d2	9th	5
	Total			10

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	3 rd , 9 th	10	10%	a 1, a 2, b1,c1, d 1, d 2
2	Practical Reports	2 nd -13 th	5	5%	a 1, a 2, b1,c1, d 2
3	Midterm Exam (Theory)	Week 7	10	10%	a 1, a 2, b1,c1, d 2
4	Final Practical Exam	14 th	20	15%	a1, a2, c1, c2
5	Final Exam (Theory)	Week 16	50	50%	a 1, a 2, b1,c1, d 2
	Total		100	100%	

IX. Learning Resources:

• Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).

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

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Department of

Unite of Development & Quality assurance



الخماهي رست ترافيست وزارة التعليم العالى والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قبيح....

وحدة التطوير وضمان الجودة

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1- DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Wall Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

- 1- www.accesspharmacy.com
- 2- Disease management guidelines (specified in lecture notes)

	X. Course Policies: (Based on the Uniform Students' By law (2007)
1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Republic of Yemen Ministry of Higher Education & Scientific Research 21 SEPTEMPER UMAS Faculty of Faculty of Clinical Pharmacy Department of Unite of Development & Quality assurance



والخراق والمسترين المعتسات وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

	Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Department of Unite of Development & Quality assurance



المحكورية المحتات وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم..... وحدة التطوير وضمان الجودة

Republic of Yemen

Ministry of Higher Education & Scientific Research 21 September University of Medicals & Applied Sciences





Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of Therapeutics (5)

Course No. (02.01.222)

2016/2017

I. Information about Faculty Member Responsible for the Course:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy

13

Date of Approval:



والمنكن ترافينيت وزارة التعليم العالي والبحث العلمي جامع ـــــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وضمان الجودة

Na	me of Faculty Member:	Dr. Ali Alyaha	iwi		(Office	Hou	rs	
Lo	cation& Telephone No.:	775957401							
E-1	mail:	alyahawipharm@ya	lhoo.com	SAT	SUN	MON	TUE	WED	THU
	II. Course Identif	fication and Gen	eral Inf	form	atio	n:			
1	Course Title:		Therape	eutics (:	5)				
2	Course Code & Number	02.01.22	22						
			Credit	Г	heory	Hours		La	b.
3	Credit Hours:		Hours	Lect	ure	Exer	cise	Ho	urs
		3	2				2	2	
4	Study Level/ Semester at which this Course is offered:			5th Level / 2nd Semester					
5	Pre -Requisite (if any):	Pharmacology IV							
6	Co -Requisite (if any):	Co -Requisite (if any):			Cases Studies in Therapeutics (5): "casebased seminars"				
7	Program (s) in which the	Bachelo D.	r of Cl	inical	Pharm	acy &	z Phari	n.	
8	Language of Teaching th	e Course:	English						
9	Study System:		Semester based System						
10	Mode of Delivery:		Regular-	-Full T	ime				
11	Location of Teaching the	Course:	Faculty	of Clin	ical Pl	harma	су		-
12	Prepared by:		Dr. Ali	Alyaha	wi				
ALCOHOLD STREET									

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Department of

Unite of Development & Quality assurance



الحَمْ هَوَرِيَ بَ الْمِيْسَيَ بَ الْمِيْسَيَ بَ وَ وَرَارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية قسم

قسم وحدة التطوير وضمان الجودة

III. Course Description:

The course content is supportive for pharmacy practice and integrated case based learning" courses and is complementary to pathophysiology and pharmacology courses. The course aims to improve the knowledge of the pathophysiology, clinical presentations, complications, and therapeutics of oncology and hematology conditions including venous thromboembolism, emesis, anemia, infection related to cancer, common chemotherapy regimen used for cancer, pain management, general toxicity of chemotherapy agents, coagulation disorders and Sickle Cell Disease (SCD).

IV. Course Intended Learning Outcomes (CILOs):

Upon successful completion of the Course, student will be able to:

Discuss the pathophysiology, clinical presentations, and complications of oncology and hematology diseases. 1. Intellectual Skills: Upon successful completion of the course, students will be able to: 1. Design the rational medication use and monitoring plan of selected oncology and hematology disease. 2. Professional and Practical Skills: Upon successful completion of the course, students will be able to: 2. Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases. 3. Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases. 4. Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases. 4. C. Professional and Practical Skills: Upon successful completion of the course, students will be able to: 4. Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases. 4. D. Transferable Skills: Upon successful completion of the course, students will be able to: 4. Search for updated medical information from proper medical references to manage oncology and hematology diseases.	A. Knowledge and Understanding: Upon successful completion of the course to:	e, students will be able
diseases. B. Intellectual Skills: Upon successful completion of the course, students will be able to: b1 Design the rational medication use and monitoring plan of selected oncology and hematology disease. C. Professional and Practical Skills: Upon successful completion of the course, students will be able to: c1 Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases. C2, C3. C5. C6 D. Transferable Skills: Upon successful completion of the course, students will be able to: d1 Search for updated medical information from proper medical	ar productions, and	
Design the rational medication use and monitoring plan of selected oncology and hematology disease. C. Professional and Practical Skills: Upon successful completion of the course, students will be able to: C1 Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases. C2, C3. C5. C6 D. Transferable Skills: Upon successful completion of the course, students will be able to: d1 Search for updated medical information from proper medical		
oncology and hematology disease. C. Professional and Practical Skills: Upon successful completion of the course, students will be able to: C1 Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases. C2, C3. C5. C6 D. Transferable Skills: Upon successful completion of the course, students will be able to: d1 Search for updated medical information from proper medical	B. Intellectual Skills: Upon successful completion of the course, students	will be able to:
c1 Apply properly the drug regimens and monitoring parameters to achieve therapeutic goals of oncology and hematology diseases. C2, C3. C5. C6 D. Transferable Skills: Upon successful completion of the course, students will be able to: d1 Search for updated medical information from proper medical	The State of the S	1
achieve therapeutic goals of oncology and hematology diseases. C2, C3. C5. C6 D. Transferable Skills: Upon successful completion of the course, students will be able to: d1 Search for updated medical information from proper medical		se, students will be able
d1 Search for updated medical information from proper medical		
D1 D2 D2	D. Transferable Skills: Upon successful completion of the course, studen	ts will be able to:
		1

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Department of

Unite of Development & Quality assurance



والخرائ والتيتان

وزارة التعليم العالي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

d2	Communicate effectively therapeutics decisions with a teamwork and	
	patients.	D1

V. Course Contents:

A. Theoretical Aspect:

Order	Units/Topics List	Sub Topics List	Number of Weeks	Contac t Hours
		- Overview of cancer chemotherapy	1	2
		 Venous thromboembolism Chemotherapy-Induced Nausea and Vomiting (CINV) 	1	2
		- Anemia & Fatigue	1	2
1		- Pain management	1	2
	Oncology Supportive Care	- Infection related to cancer	1	2
		- Common chemotherapy regimen used for cancer.	1	2
		- Chemoprotectants - Oncologic Emergencies	1	2
2	Midterm Exam		1	2
3	Oncology Supportive Care	 General toxicity of some chemotherapy agents: Platinium agents (ex.Cisplatin) Anthracyclines ex.doxorubucin Vina alkaloid ex.Vincristine Methotrexate, Etoposide, Ara-C, Ifosphamide, Docetaxel, Infliximab. 	2	4
		- Anemia	1	2
		- Coagulation Disorders	2	4
4	Hematology Disorders	- Sickle Cell Disease (SCD)	1	2
		- Drug-Induced Hematologic Disorders	1	2
5	Final Exam		1	2

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi



وزارة التعليم العالي والبحث العلمي جامعــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم..... وحدة التطوير وضمان الجودة

Number of Weeks /and Units Per Semester	16	27
		34

B. Case Studies and Practical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contac Hours
		- Common complications of cancer chemotherapy	3	6
	Cases study in Oncology	- Acute Myeloid Leukemia (AML)	1	2
1	diseases Disorders	- Chronic Myeloid Leukemia (CML)	1	2
		- Prostate Cancer	2	4
2	Midterm Exam		1	2
3	Cases study in Oncology diseases	- Breast Cancer	1	2
		- Anemia	2	4
	Cases study in Hematology	- Coagulation Disorders	2	4
4	Disorders	- Sickle Cell Disease	1	2
		- Drug-Induced Hematologic Disorders	1	2
5	Final Theoretical Exam		1	2
	Number of Weeks /and	Units Per Semester	16	32

C. Tutorial Aspect:

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



للخفي لتستنات

وزارة التعليم العالي والبحث العلمي جامعـــة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

> قسم..... وحدة التطوير وضمان الجودة

No.	Tutorial	Number of Weeks	Contact Hours
1	NA		
2	10-		
3	11-		
4	12-		
5	13-		
6	14-		
7	15-		
8	16-		
9	17-		
10	18-		
	Number of Weeks /and Units Per Semester		

VI. Teaching Strategies of the Course:

T		
- 1	ecture	
- 1	LULLU C	

Instructor - student Interactive

Exercises

Presentation

Office hours

Seminar

Assignment

Self-Learning

VII. Assessment Methods of the Course:

Assignments

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Faculty of Faculty of Clinical Pharmacy
Department of

Unite of Development & Quality assurance



الحَمْ هُورِيَّ مَن الْمِيْسَ الْمُعْسَدِّ مَن الْمُعْسَدِّ الْمُعْمَدِ وَالْمِدَّ الْمُعْمِدِ الْمُعْلِدِة وَ جامعــة 21 سيتمبر للعلوم الطبية والتطبيقية

كلية الصيدلة السريرية

قسم وحدة التطوير وضمان الجودة

()uiz
E	xam

VIII. Assignments:

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	3 rd , 9 th	10	10%
2	Practical Reports	2 nd -13 th	5	5%
3	Midterm Exam (Theory)	Week 7	10	10%
4	Final Practical Exam	14 th	20	15%
5	Final Exam (Theory)	Week 16	50	50%
	Total		100	100%

X. Learning Resources:

Written in the following order: (Author - Year of publication - Title - Edition - Place of publication - Publisher).

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

- 1- Chisholm-Burns et al, 2019. Pharmacotherapy principles & practice. ed., 5th edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

2- Essential References.

- 1. DiPiro et al, 11th edition, 2020. Pharmacotherapy: A Pathophysiological Approach, ed. edition.
- 2. Carolin, 2018. Applied Therapeutics: The Clinical Use of Drugs, 11th edition.
- 3. Walker & Whittlesea, 6th edition, 2018. Clinical Pharmacy and Therapeutics, ed. Walk Whittlesea, 6th edition, 2018.

3- Electronic Materials and Web Sites etc.

- 1- www.accesspharmacy.com
- 2- Disease management guidelines (specified in lecture notes)

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

Department of

Unite of Development & Quality assurance



المختلف ترافيت وزارة التعليم العالي والبحث العلمي جامعة 21 سبتمبر للعلوم الطبية والتطبيقية كلية الصيدلة السريرية

قسم.... وحدة التطوير وضمان الجودة

XI. Course Policies: (Based on the Uniform Students' Bylaw (2007)

	Class Attendance:
1	Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:	
Dr. Ali Alyahawi	Dr. Abdulelah Thabet	Dr	Dr. Abdulelah Thabet	Dr. Ali Alyahawi	