

Republic of Yemen
Ministry of Higher Education & Scientific Research
Emirates International University



Faculty of Medical Sciences
Department of Clinical Pharmacy
Bachelor of Pharm D

Course Specification of Surgery Clerkship
Course No. (CR 608)



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Prepared by:

Dr. - Dr. Alyahawi

Reviewed by:
Dr. ---

Head of the Department: Quality Assurance head

Dean:



I. Course Identification and General Information:

1	Course Title:	Surgery Clerkship		
2	Course Code & Number:	CR 608		
3	Credit Hours:	Credit Hours	Theory Hours	Training Hours
			Lecture	Exercise
		3	--	192 hours
4	Study Level/ Semester at which this Course is offered:	6 Level / 2 Semester		
5	Pre –Requisite (if any):	Pharmacotherapy I-IV		
6	Co –Requisite (if any):	None		
7	Program (s) in which the Course is Offered:	Bachelor of 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 Medicine and Health Sciences		
12	Prepared by:	Dr. Alyahawi		
13	Date of Approval:			

II. Course Description:

This course aims to provide students with the knowledge of clinical manifestations, complications, goals of pharmacotherapy and patient education in preoperational procedures, induction of anaesthesia, general anaesthesia 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.

III. Course Intended Learning Outcomes

(CILOs) : **(maximum 8)**

Upon successful completion of the course, students will be able to:

Referenced PILOs

Learning out of program

A. Knowledge and Understanding:		I, A or E	
a1	Define the desired outcomes and rational drug therapy of the medications involved with a surgery service in the pre and post- operative settings.	I	A10
a2	Describe the clinical management of the DVT prophylaxis, PONV, pain, medication adjustments pre and post surgeries, antimicrobial surgical prophylaxis and basic	I	A5, A10



	concepts of local and general anesthesia.		
B. Intellectual Skills:			
b1	Construct monitoring plan for drug efficacy, adverse effects, compliance, and drug interactions	E	B2, B7, B8, B9
b2	Design rational pharmacotherapy regimens to optimize the clinical outcomes for surgery patients.	E	B7
C. Professional and Practical Skills:			
c1	Apply rational pharmacotherapy regimen and monitoring plan to achieve targeted therapeutic outcomes according to appropriate primary literature and updated guidelines.	A	C5, C8
c2	Continuously evaluate the target endpoints of selected cases discussion related to obstetrical and gynecological diseases	A	C5, C8
D. Transferable Skills:			
d1	Accurately search and answer questions from health care professionals	A	D1, D3
d2	Collect and interpret information from medical references.	A	D5

(a) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1- Define the desired outcomes and rational drug therapy of the medications involved with a surgery service in the pre and post- operative settings.	Clinical cases studies Discussions & Small group discussions Seminars Training Self-learning Group learning and Problem-based learning -	- Assignments - Oral case discussions during clinical rounds - Seminar - Pharmacy practice manual - Formal case presentation - Presentation for one of the course content topics. - Exam
a2- Describe 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..	Clinical cases studies Discussions & Small group discussions Seminars Training Self-learning Group learning and Problem-based learning -	- Assignments - Oral case discussions during clinical rounds - Seminar - Pharmacy practice manual - Formal case presentation - Presentation for one of the course content topics. - Exam

(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 monitoring plan for drug efficacy, adverse effects, compliance, and drug interactions	Clinical cases studies Discussions & Small group discussions Seminars Training Self-learning Group learning and Problem-based learning -	- Assignments - Oral case discussions during clinical rounds - Seminar - Pharmacy practice manual - Formal case presentation - Presentation for one of the course content topics. - Exam
b2- Design rational pharmacotherapy regimens to optimize the clinical outcomes for surgery patients.	Clinical cases studies Discussions & Small group discussions Seminars Training Self-learning Group learning and Problem-based learning -	- Assignments - Oral case discussions during clinical rounds - Seminar - Pharmacy practice manual - Formal case presentation - Presentation for one of the course content topics. - Exam

(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 rational pharmacotherapy regimen and monitoring plan to achieve targeted therapeutic outcomes according to appropriate primary literature and updated guidelines.	Clinical cases studies Discussions & Small group discussions Seminars Training Self-learning Group learning and Problem-based learning -	- Assignments - Oral case discussions during clinical rounds - Seminar - Pharmacy practice manual - Formal case presentation - Presentation for one of the course content topics. - Exam
C2- Continuously evaluate the target endpoints of selected cases discussion related to obstetrical and gynecological diseases	Clinical cases studies Discussions & Small group discussions Seminars Training Self-learning	- Assignments - Oral case discussions during clinical rounds - Seminar - Pharmacy practice manual - Formal case presentation

	Group learning and Problem-based learning -	- Presentation for one of the course content topics. - Exam
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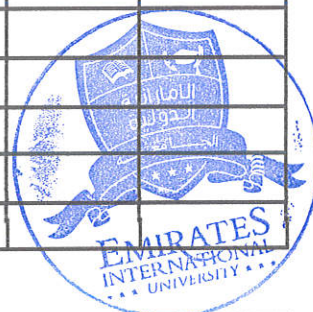
(d) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1 Accurately search and answer questions from health care professionals	Clinical cases studies Discussions & Small group discussions Seminars Training Self-learning Group learning and Problem-based learning -	- Assignments - Oral case discussions during clinical rounds - Seminar - Pharmacy practice manual - Formal case presentation - Presentation for one of the course content topics. - Exam
d2 Collect and interpret information from medical references.	Clinical cases studies Discussions & Small group discussions Seminars Training Self-learning Group learning and Problem-based learning -	- Assignments - Oral case discussions during clinical rounds - Seminar - Pharmacy practice manual - Formal case presentation - Presentation for one of the course content topics. - Exam

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1		-			
2		-			
3		-			
4		-			
5		-			
6		-			
7		-			
8		-			



No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
9		–			
10		–			
11		–			
12					
Number of Weeks /and Units Per Semester					

B. Case Studies and Practical Aspect:

Order	Tasks/ Experiments	Number of Weeks	contact hours	Learning Outcomes
1	Guidelines For Diagnosis And Treatment Of Diabetic Foot Infection.	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
2	Antithrombotic Therapy and Prevention of Thrombosis, Updated American College of Chest Physicians Evidence-Based Clinical Practice Guidelines.	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
3	Updated Guideline for the management of postoperative nausea and vomiting.	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
4	Updated Consensus Guidelines for Managing Postoperative Nausea and Vomiting	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
5	Updated Practice Guidelines for Antimicrobial Prophylaxis of Urologic Surgery	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
6	Updated Practice Guidelines for Acute Pain Management in the Perioperative Setting	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
7	Management of postoperative pain	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
8	Management of Common Opioid-Induced Adverse Effects	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
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	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
10	Management of Hyperglycemia in Type 2 Diabetes- A Patient-Centered	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2

	Approach: Position Statement			
11	Insulin administration	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
12	Overview of perioperative medication management and anesthetic choices	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
13	Standards for postanesthesia care	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
14	Surgical site infection	Course Training Period	Of Course Training CH	a 1, a 2, b1, b2, c1, d 1, d2
15	Final Exam	Week 3	-----	a 1, a 2, b1, b2, c1, d 1, d2
16	Number of Weeks /and Units Per Semester 3 weeks		192	192 hours

V. Teaching Strategies of the Course:

- Clinical cases studies
- Discussions & Small group discussions
- Seminars
- Training
- Self-learning
- Group learning and Problem-based learning

VI. Assessment Methods of the Course:

- Assignments
- Oral case discussions during clinical rounds
- Seminar
- Pharmacy practice manual
- Formal case presentation
- Presentation for one of the course content topics.
- Exam

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Assignment 1: Develop a pharmaceutical care plan for selected case in Acute Pain management according to appropriate primary literature and updated guidelines.	a 1, a2, b1, b2, c1, d1, d2	Week 1	5
2	Assignment 2: Develop a pharmaceutical care plan for selected case in management of postoperative pain according to appropriate primary literature and updated guidelines	a 1, a2, b1, b2, c1, d1, d2	Week 2	5
Total				



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	Weekly 1-2	10	10%	a 1, a2, b1, b2, c1, d1, d2
2	Oral case discussions during clinical rounds	Weekly 1-3	10	10%	a 1, a2, b1, b2, c1, d1, d2
3	Pharmacy practice manual	Weekly 1-3	15	15%	a 1, a2, b1, b2, c1, d1, d2
4	Formal case presentation	Week 3	10	10%	a 1, a2, b1, b2, c1, d1, d2
5	Presentation for one of the course content topics.	Week 3	5	5%	a 1, a2, b1, b2, c1, d1, d2
6	Final exam	Week 3	50	50%	a 1, a2, b1, b2, c1, d2
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. 5rd edition.
2. Katzung, 2018, Basic & Clinical Pharmacology. 14th edition.

2- Essential References.

1. DiPiro et al, 2017, Pharmacotherapy: A Pathophysiological Approach, 11th edition.
2. Caroline S. Zeind and Michael G. Carvalho, 2018, Applied Therapeutics: The Clinical Use of I 11th edition.
3. Walker & Whittlesea, 2018. Clinical Pharmacy and Therapeutics, 6 edition.

3- Electronic Materials and Web Sites etc.

- UpToDate
- <http://www.globalrph.com/>
- Updated Clinical Practice Guidelines for selected course disorders

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.
Tardiness:	
2	A student will be considered late if he/she is not in class after 10 minutes of the start time of class.



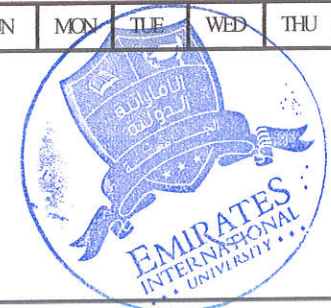
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects 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 Medical Sciences
Department of Clinical Pharmacy
Bachelor of Pharm D

Course Specification of Surgery Clerkship
Course No. (CR 608)

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



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1	Course Title:	Surgery Clerkship		
2	Course Code & Number:	CR 608		
3	Credit Hours:	Credit Hours	Theory Hours	Training Hours
			Lecture	
		3	--	192 hours
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IV. Course Intended Learning Outcomes (CILOs) :

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

	A. Knowledge and Understanding:
a1	Define the desired outcomes and rational drug therapy of the medications involved with a surgery service in the pre and post- operative settings.
a2	Describe 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. Intellectual Skills:

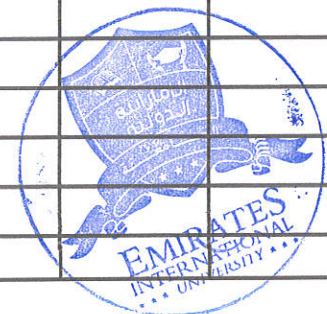
b1	Construct monitoring plan for drug efficacy, adverse effects, compliance, and drug interactions
b2	Design rational pharmacotherapy regimens to optimize the clinical outcomes for surgery patients.
C. Professional and Practical Skills:	
c1	Apply rational pharmacotherapy regimen and monitoring plan to achieve targeted therapeutic outcomes according to appropriate primary literature and updated guidelines.
c2	Continuously evaluate the target endpoints of selected cases discussion related to obstetrical and gynecological diseases
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d1	Accurately search and answer questions from health care professionals
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V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1		–		
2		–		
3		–		
4		–		
5		–		
6				
7		–		
8		–		
9		–		
10		–		
11		–		
12				
Number of Weeks /and Units Per Semester				

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1		–		
2		–		
3		–		
4		–		
5		–		
6				



No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
7		–		
8		–		
9		–		
10		–		
11		–		
12		–		
Number of Weeks /and Units Per Semester				

B. Case Studies and Practical Aspect:

خطأ! لم يتم العثور على مصدر المرجع.

VI. Teaching Strategies of the Course:

- Clinical cases studies
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- Seminars
- Training
- Self-learning
- Group learning and Problem-based learning

VII. Assessment Methods of the Course:

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Total			

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

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	Weekly 1-2	10	10%
2	Oral case discussions during clinical rounds	Weekly 1-3	10	10%
3	Pharmacy practice manual	Weekly 1-3	15	15%
4	Formal case presentation	Week 3	10	10%
5	Presentation for one of the course content topics.	Week 3	5	5%
6	Final exam	Week 3	50	50%
Total			100	100%

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