

جامعة أم القرى

كلية الصيدلة

الماجستير في الكيمياء الصيدلانية وتحليل

الأدوية

4. Learning and Teaching

4/1 Learning Outcomes and Graduate Specifications

4/1/1 Main tracks or specializations covered by the program:

(a) Pharmacotherapeutics

(b) Pharmacy Practice Training

(c) Research in Clinical Pharmacy and Human Therapeutics

4/1/2 Curriculum Study Plan Table

Level	Course Code	Course Title	Required or Elective	Prerequisite Courses	Credit Hours
Level 1	1805601-3	Pharmacotherapeutics I: Cardiovascular and Endocrinology	R		3
	1805602-3	Pharmacotherapeutics II: Infectious diseases and Critical care	R		3
	1805603-3	Research Methodology and Biostatistics	R		3
	1805604-3	Clinical Clerkship I: Internal Medicine	R		3
	1805609-3	Clinical Clerkship II: Critical care & Infectious diseases	R		3
Level 2	1805606-3	Pharmacotherapeutics III: Oncological and Pediatric diseases	R		3
	185607-3	Pharmacotherapeutics IV: Nephrology, Gastrointestinal and Respiratory disorders	R		3
	1805608-3	Advanced Pharmacy Practice and Pharmaceutical care services	R		3
	1805605-3	Clinical Clerkship III: Pediatrics	R		3
	1805610-3	Clinical clerkship IV: Oncology	R		3

Level 3	1805701-3	Pharmacotherapeutics V: Psychiatric disorders and Neurology	R		3
	1805702-3	Social and Administrative Pharmacy	R		3
	185703-8	Specialty clerkship (Choose any ONE) and Medicines Use Evaluation project	R		8
Level 4	1805705-06	Research project and dissertation	R		6
	185704-6	Specialty clerkship II	R		6

Include additional levels or courses if needed

4/1/4. Course Specification:

COURSE SPECIFICATIONS

Form

**Course Title: Pharmacotherapeutics I:
Cardiovascular and Endocrinology**

Course Code: 1805601-3

Date: 20....-.....-.....

Institution:Umm Al-Qura University

College: Pharmacy Department: ...Clinical Pharmacy.....

A. Course Identification and General Information

1. Course title and code: 1805601-3

2. Credit hours: 3

3. Program(s) in which the course is offered.
Master Clinical Pharmacy.

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course:

5. Level/year at which this course is offered:
1st semester of 1st year.

6. Pre-requisites for this course (if any):no

7. Co-requisites for this course (if any):no

8. Location if not on main campus :on campus

9. Mode of Instruction (mark all that apply):

- | | | | |
|-------------------------------------|-------------------------------------|-------------|-----------------------------------|
| a. Traditional classroom | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="100%"/> |
| b. Blended (traditional and online) | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="60%"/> |
| c. E-learning | <input type="checkbox"/> | percentage? | <input type="text"/> |
| d. Correspondence | <input type="checkbox"/> | percentage? | <input type="text"/> |
| f. Other | <input type="checkbox"/> | percentage? | <input type="text"/> |

Comments:

B Objectives

1. The main objective of this course

The aim of this subject is to develop your therapeutic planning skills while integrating and using your knowledge to make appropriate therapeutic plan.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description: This core course will be delivered during the first semester. In this course, topics related to cardiovascular and endocrinological disorders will be covered, detailed list of the topics is given below. Both traditional lecture based and problem-based teaching methods will be employed to enhance students' learning experience. After completing the lecture series, students will spend 6 weeks in internal medicine ward to gain hands on experience. The students will collect 5 cases individually and prepare case reports. Students will also be asked to give one oral presentation from their five cases.

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
1. Management of Hypertension	Week1	3
2. Management of Hyperlipidaemia	Week2	3
3. Management of Congestive Heart Failure and its complications	Week3	3

4. Management of Myocardial Infarction and its complications	Week4	3
5. Management of Arrhythmias	Week 5	3
6. Management of Stroke	Week 6	3
7. Management of Venous Thromboembolism	Week 7	3
8. Management of Ischemic Heart Disorders (Stable angina and ACS)	Week8	3
9. Management of Drug Induced cardio-vascular disorders	Week9	3
10. Management of diabetes and its complications	Week 10	3
11. Management of thyroid disorders	Week 11	3
12. Management of adrenocortical disorders	Week 12	3

2. Course components (total contact and credit hours per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	2	1	/	/	/	3
	Actual	2	1	/	/	/	3
Credit	Planned	2	1	/	/	/	3
	Actual	2	1	/	/	/	3

3. Individual study/learning hours expected for students per week.

6 h

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an

integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Contrast and compare available pharmacotherapeutic options to manage patients with one or more common cardiovascular or endocrine disorders .	Lecture Case study Directed Self-Learning	Exam Oral Case presentation Case reports Assignment and oral defence
1.2			
2.0	Cognitive Skills		
2.1	Recommend an appropriate drug and dosing regimen for a particular disease.	Lecture Case study Directed Self-Learning	Exam Oral Case presentation Case reports Assignment and oral defence
2.2			
3.0	Interpersonal Skills & Responsibility		
3.1	Design, initiate, modify and evaluate pharmacotherapeutic plans for specific patients with such conditions.	Lecture Case study Directed Self-Learning	Exam Oral Case presentation Case reports Assignment and oral defence
3.2			
4.0	Communication, Information Technology, Numerical		
4.1	Counsel patients receiving medications on their appropriate use	Case study Directed Self-Learning	Oral Case presentation Case reports Assignment and oral defence
4.2			
5.0	Psychomotor(if any)		
5.1			
5.2			

5. Assessment Task Schedule for Students During the Semester

Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
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1	Mid-term exam: (MCQ based only) .	Week 6	15%
2	Oral Case presentation.	Week 10	10%
3	Case reports (5 reports).	Week 12	15%
4	Assignment and oral defence.	Week 11	15%
5	Final exam.	Week 13	45%
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

E Learning Resources

1. List Required Textbooks

Chisholm-Burns, M. A., Wells, B. G., Schwinghammer, T. L., Malone, P., Kolesar, J., Rotschafer, J., & DiPiro, J. (2010). *Pharmacotherapy principles & practice*: McGraw-Hill New York.

Koda-Kimble, M. A., Alldredge, B. K., Corelli, R. L., & Ernst, M. E. (2012). *Koda-Kimble and Young's applied therapeutics: the clinical use of drugs*: Lippincott Williams & Wilkins.

2. List Essential References Materials (Journals, Reports, etc.)

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

2. Technology resources (AV, data show, Smart Board, software, etc.)

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching

2. Other Strategies for Evaluation of Teaching by the Instructor or the Department

3. Procedures for Teaching Development

4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

Name of Course Instructor: _____

Signature: _____ Date Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____

COURSE SPECIFICATIONS

Form

Course Title: **Pharmacotherapeutics II: Infectious diseases and Critical care**

Course Code: 1805602-3

Date: 20....-.....-.....

Institution: Umm Al Qura University

College: College of Pharmacy Department: pharmacyClinical P

A. Course Identification and General Information

1. Course title and code: [Pharmacotherapeutics II: Infectious diseases and Critical care/1805602-3](#)

2. Credit hours: 2/1/3

3. Program(s) in which the course is offered.

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course: Dr. Abdul Haseeb M Hanif

5. Level/year at which this course is offered: MSC

6. Pre-requisites for this course (if any): Nill

7. Co-requisites for this course (if any): Nill

8. Location if not on main campus: Main Campus

9. Mode of Instruction (mark all that apply):

a. Traditional classroom	<input checked="" type="checkbox"/> Yes	percentage?	<input type="text" value="50"/>
b. Blended (traditional and online)	<input checked="" type="checkbox"/> Yes	percentage?	<input type="text" value="20"/>
c. E-learning	<input checked="" type="checkbox"/> Yes	percentage?	<input type="text" value="20"/>
d. Correspondence	<input checked="" type="checkbox"/> Yes	percentage?	<input type="text" value="10"/>
f. Other	<input type="checkbox"/>	percentage?	<input type="text"/>

Comments:

B Objectives

At the end of this course the students should be able

- Develop risk factor–based empiric antibiotic regimens for patients with suspected ventilator-associated pneumonia.
- Identify a definitive management strategy for central line associated bloodstream infections.
- Describe definitive and supportive care pharmacotherapeutic interventions for patients with severe influenza.
- Develop empiric and definitive antimicrobial therapy plans for patients with catheter related urinary tract infection.
- Differentiate between location of intraabdominal infection and respective empiric antimicrobial therapy.
- Describe the role of antibiotic therapy in patients with acute pancreatitis.
- Develop a definitive management strategy for critically ill patients with severe *Clostridium difficile* infection.
- Recommend definitive antibiotic therapy for patients with postoperative wound infection.
- Describe the role of pharmacotherapy in the management of severe cutaneous reactions.
- Provide empiric antibiotic therapy recommendations for critically ill patients with community-acquired or health care–associated meningitis.
- Analyze therapeutic options for the treatment of multidrugresistant pathogens in the intensive care unit (ICU).
- Devise an optimal treatment plan for critically ill immunocompromised patients with infectious diseases.
- Distinguish each of the commonly used antifungal agents and their place in therapy in an ICU setting.
- Distinguish between the various shock syndromes according to a patient’s clinical and hemodynamic parameters.
- Develop a treatment pathway for the care of patients with sepsis or septic shock that incorporates current evidence and the Surviving Sepsis Campaign guideline recommendations.
- Describe a treatment plan for patients with asthma exacerbations and acute respiratory failure from chronic obstructive pulmonary disease exacerbation.
- Differentiate between the main endocrine emergencies in the intensive care unit, and be able to design a therapeutic regimen for a patient presenting with each condition.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description:

This core course will be delivered during the first semester. In this course, topics related to the management of various infectious diseases will be covered, detailed list of the topics is given below. Both traditional lecture based and problem based teaching methods will be employed to enhance students' learning experience. After completing the lecture series, students will spend 4 weeks in infectious diseases ward to gain hands on experience. The students will collect 5 cases individually and prepare case reports. Students will also be asked to give one oral presentation from any of their five cases.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
1. Ventilator Associated Pneumonia	1	3
2. Central Line Associated Bloodstream Infections	1	3
3. Influenza	1	3
4. catheter related urinary tract infection.	1	3
5. Intraabdominal infection	1	3
6. Acute Pancreatitis	1	3
7. Clostridium difficile infection	1	3
8. treatment of multi drug resistant pathogens in the intensive care unit (ICu)	1	3
9. Fungal Infections	1	3
10. Shock syndromes	1	3
11. Acute Respiratory Distress Syndroms	1	3
12. Endocrine emergencies in icu	1	3
13. Fluid and Electrolyte management/ Nutrition in critically ill patients	1	3
14. Sepsis	1	3

2. Course components (total contact and credit hours per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	2	1	1	1	1	6
	Actual	2	1	1	1	1	6
Credit	Planned	1	0.5	0.5	0.5	0.5	3
	Actual	1	0.5	0.5	0.5	0.5	3

3. Individual study/learning hours expected for students per week.

6

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Identify a definitive management strategy for central line associated bloodstream infections	Case Based Learning Lecturing	Mid Term
1.2	Describe definitive and supportive care pharmacotherapeutic interventions for patients with severe influenza.	Case Based Learning Lecturing	Mid Term
1.3	Describe the role of antibiotic therapy in patients with acute pancreatitis.	Case Based Learning Lecturing	Mid Term
1.4	Describe the role of pharmacotherapy in the management of severe cutaneous reactions.	Case Based Learning Lecturing	OSCE
1.5	Describe a treatment plan for patients with asthma exacerbations and acute respiratory	Case Based Learning Lecturing	OSCE

	failure from chronic obstructive pulmonary disease exacerbation.		
2.0	Cognitive Skills		
2.1	Differentiate between location of intraabdominal infection and respective empiric antimicrobial therapy.	Case Based Learning Lecturing	OSCE
2.2	Analyze therapeutic options for the treatment of multidrugresistant pathogens in the intensive care unit (ICU).	Case Based Learning Lecturing	MCQs Exam
2.3	Distinguish between the various shock syndromes according to a patient's clinical and hemodynamic parameters.	Case Based Learning Lecturing	MCQs Exam
2.4	Distinguish each of the commonly used antifungal agents and their place in therapy in an ICU setting.	Case Based Learning Lecturing	MCQs Exam
2.5	Differentiate between the main endocrine emergencies in the intensive care unit, and be able to design a therapeutic regimen for a patient presenting with each condition	Case Based Learning	MCQs Exam
3.0	Interpersonal Skills & Responsibility		
3.1	Develop risk factor–based empiric antibiotic regimens for patients with suspected ventilator-associated pneumonia.	Case Based Learning Lecturing	MCQs Exam
3.2	Develop empiric and definitive antimicrobial therapy plans for patients with catheter related urinary tract infection.	Case Based Learning Lecturing	MCQs Exam
3.3	Develop a definitive management strategy for critically ill patients with severe <i>Clostridium difficile</i> infection.	Case Based Learning Lecturing	MCQs Exam
3.4	Develop a treatment pathway for the care of patients with sepsis or septic shock that incorporates current evidence and the Surviving Sepsis Campaign guideline recommendations.	Case Based Learning Lecturing	MCQs Exam
4.0	Communication, Information Technology, Numerical		
4.1	Recommend definitive antibiotic therapy for patients with postoperative wound infection	Case Based Learning	MCQs Exam
4.2	Devise an optimal treatment plan for critically ill immunocompromised patients with infectious diseases.	Case Based Learning	MCQs Exam
5.0	Psychomotor(if any)		
5.1	Provide empiric antibiotic therapy recommendations for critically ill patients with community-acquired or health care–associated meningitis.	Case Based Learning Lecturing	MCQs Exam

5. Assessment Task Schedule for Students During the Semester			
	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Case presentations and case reports	Week 5,8,10,12	20
2	Mid Term Examination	Week 7	15
3	Integrated OSCE	Week 13	15
4	Final Examination	Week 15	50
5			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

E Learning Resources

1. List Required Textbooks
 1. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs (10th Edition)
 2. Pharmacotherapy: A pathophysiologic approach (9th Edition) Edited by: Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey
2. List Essential References Materials (Journals, Reports, etc.)
 1. Pharmacotherapy Principles and Practice, Third Edition (Chisholm-Burns, Pharmacotherapy) 3rd Edition
 2. Casebook of Pharmacotherapy: A patient focused approach (9th Edition)
 3. Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e.
3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
 1. <https://www.nice.org.uk/guidance>
 2. www.nccn.org/
 3. www.idsociety.org › Guidelines/Patient Care › IDSA Practice Guidelines
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

- Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
Classroom, Computer lab. Specific library for case discussion.
 2. Technology resources (AV, data show, Smart Board, software, etc.)
Smart Board, Internet Facility
 3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)
Quizdom device to perform in class activities.

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching
Bi weekly students satisfaction survey
3. Other Strategies for Evaluation of Teaching by the Instructor or the Department

.In class activities by using quizdom device as responses recorder
3. Procedures for Teaching Development
4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

Name of Course Instructor: Dr. Abdul Haseeb M Hanif

Signature: _____ Date Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____

COURSE SPECIFICATIONS Form

Course Title: **Research Methodology and
Biostatistics**

Course Code: **1805603-3**

Course Specifications

Institution: Umm Al-Qura University	Date:
College/Department: College of Pharmacy/ Department of Pharmaceutical Chemistry	

A. Course Identification and General Information

1. Course title and code: Research Methodology and Biostatistics
2. Credit hours: 3 CU
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs)
4. Name of faculty member responsible for the course:
5. Level/year at which this course is offered: Master degree/First Year
6. Pre-requisites for this course (if any):
7. Co-requisites for this course (if any):
8. Location if not on main campus:
9. Mode of Instruction (mark all that apply): a. traditional classroom <input checked="" type="checkbox"/> What percentage? <input type="text" value="60%"/> b. blended (traditional and online) <input type="text"/> What percentage? <input type="text"/>

c. e-learning

X

What percentage?

40%

d. correspondence

What percentage?

f. other

What percentage?

Comments:

B Objectives

1. What is the main purpose for this course?

The main purpose of this course is to introduce the students with research methods, data analysis, and to enable them to implicate qualitative and quantitative methods for conducting manipulative as well as interoperative research. The students will gain an insight of research intent and design, methodology and technique, format and presentation, and data management and analysis informed by commonly used statistical methods. The focal point of this course will not to search the mystery of statistics but to develop each student's ability to use this knowledge to become more effective in research after going through important concepts of research design, data collection, statistical and interpretative analysis, and final report presentation.

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web-based reference material, changes in content as a result of new research in the field)

The change is inevitable to make progress either in academic or research provided that it is properly facilitated and managed. This course is introduced for the first time so the progress of the course in terms of input and output would be critically evaluated with the passage of time during or after the completion of course for the master program. However, the implementation of online activities (i.e., online assignments) along with traditional lectures, tutorials and case studies will be used in the most teaching classes for this course.

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description:

- Overall, the course will work through the weekly plan lessons related to research and/or statistics-related concepts to the students with real-life research examples to understand them how research changes the life in academics, industries and profession.
- This course will provide knowledge about methods in research design, preparation a preliminary research project in their subject matter areas.
- The course will also explicit how to accurately collect data, its interpretation and presentation for dissertation, research papers, seminars and conferences.
- The course will also focus to empirically review, judge, and analyze findings which may affect their areas of research and communication.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours

The process of conducting research: An overview	01	02
Research design introduction	01	02
<ul style="list-style-type: none"> • Introduction to Qualitative Research • Interpreting Qualitative Data 	02	04
Introduction to Quantitative Research	01	02
Sampling Concepts	01	02
Quantitative Data Collection Instruments	01	02
Introduction to Applied Statistics	01	02
Descriptive Statistics	01	02
Inferential Statistics	02	04
Data Mining – Finding the Patterns and Problems in the World of Data	01	02
Writing About Qualitative and Quantitative Findings	01	02

2. Course components (total contact hours and credits per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other:	Total
Contact Hours	Planned	20	10				30
	Actual						
Credit	Planned	2.0	1.0				3.0
	Actual						

3. Additional private study/learning hours expected for students per week.

3

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Evaluate the use of research methodology and oral communication in academics and research	Lectures supported by tutorial	Written Exam
1.2	Judge the reliability and validity of methodology and experiment design	Lectures supported by tutorial	Written Exam
2.0	Cognitive Skills		
2.1	Optimize and able to perform exploratory data analysis	Lectures supported by tutorial and research papers data	Written Exam and assignment
2.2	Using parametric and non-parametric hypothesis tests (t-test, ANOVA, chi-square test)	Lectures supported by tutorial and research papers data	Written Exam and assignment
3.0	Interpersonal Skills & Responsibility		
3.1	Draw inference/ conclusions from categorical data	Lectures supported by tutorial and research papers data	Assignment and presentation
3.2	Present well thought research ideas in a compelling way	Lectures supported by tutorial and research papers data	Oral presentation
4.0	Communication, Information Technology, Numerical		

4.1	Use of computer-intensive methods for data analysis	Lectures, self-learning and tutorial	Written Exam and assignment
4.2	To Draw conclusions from statistical test results	Lectures supported by tutorial and research papers data	Assignment and case studies
5.0	Psychomotor		
5.1	None		

5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Written Exam	16	60%
2	Assignment	8-15	20%
3	Research Report	7-13	20%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

The student communication regarding course contents, study matters and consultation for academic affairs with the academic staff is necessary for the smooth run of the course. For this purpose, the face to face consultation, by phone or email is recommended with academic staff. For this, the contact information of related academic staff would be displayed or conveyed to the students through proper channels of communication. The students' questions regarding course plan, tutorials and assignments may ask directly or via assistance of telephone, email and other social media channels provided that approved and authorize by the vice dean of student's academic affairs. The availability of oral consultation time would be factually on the jurisdiction of the academic staff, however; they would be encouraged to spare some time for this purpose.

E Learning Resources

- List Required Textbooks
 - Empirical Methods for Artificial Intelligence by Paul R. Cohen

<ul style="list-style-type: none"> • Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, John Creswell. Publisher: SAGE Publications, Inc; Fourth Edition (March 14, 2013), Language: English, ISBN-10: 1452226105 ISBN-13: 978-145222610. • Research Methodology: Methods and Techniques by C. R. Kothari, 3rd edition. New Age International Publishers • Yin, Robert K. 2003. Case Study Research Design and Methods. Third Edition, Applied Social Research Methods Series, Volume 5, SAGE Publications, Thousand Oaks, London, New Delhi, Newbury Park, CA. • Maxwell, J.A. 2001. QUALITATIVE RESEARCH DESIGN. Applied Social Research Methods Series, Volume 5, SAGE Publications, Thousand Oaks, London, New Delhi.
2. List Essential References Materials (Journals, Reports, etc.)
3. List Electronic Materials, Web Sites, Facebook, Twitter, etc. <ul style="list-style-type: none"> • http://upetd.up.ac.za/authors/create/index.htm • http://www.csulb.edu/~msaintg/ppa696/696menu.htm • http://www.up.ac.za/asservices/ais/assign.pdf
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) Classroom both for male and female students accommodating minimally 20 students each are required.
2. Technology resources (AV, data show, Smart Board, software, etc.)
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching

Course evaluation questionnaires available on the faculty portal website will be used to get the students feed back about the course. However, other channels such as group discussion, group leader assessment, staff-student committees, face-to-face interviews with students and e-mail survey form can also be used to overview overall effectiveness of the course.

2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department

- Peer rating
- Exit and Alumni ratings
- Employer ratings
- Self-evaluation

3. Processes for Improvement of Teaching

- Attending training sessions and workshops in staff development program organized by college of pharmacy and deanship of academic development and quality.
- Meeting with colleagues to discuss problems during teaching or using different teaching resources.
- Discussion about classroom challenges with colleagues and members of the department counsel.
- Review of previous teaching strategies in different courses and evaluating the student's feedback.

4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)

4. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

It may be achieved by;

- Benchmarking the program with other international universities actively conferring the course.
- A direct comparison of course objectives and student achievements.
- Conversation to other professors from different universities teaching the same course to exchange ideas for the improvement of the course.
- Course revision annually by the curriculum committee.

Name of Course Instructor: Dr. Abdul Haseeb M Hanif

Signature: _____ Date Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____

COURSE SPECIFICATIONS

Form

Course Title: Internal Medicine

Course Code: 1805604-3

Date: 20....-.....-.....

Institution: Umm Al Qura

College: Pharmacy Department: Clinical Pharmacy

A. Course Identification and General Information

1. Course title and code: Internal Medicine, 1805604-3

2. Credit hours: 3

3. Program(s) in which the course is offered.

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course

5. Level/year at which this course is offered: Semester 1

6. Pre-requisites for this course (if any): None

7. Co-requisites for this course (if any): None

8. Location if not on main campus: Affiliated hospital and Main Campus

9. Mode of Instruction (mark all that apply):

- | | | | |
|-------------------------------------|-------------------------------------|-------------|-----------------------------------|
| a. Traditional classroom | <input type="text"/> | percentage? | <input type="text"/> |
| b. Blended (traditional and online) | <input type="text"/> | percentage? | <input type="text"/> |
| c. E-learning | <input type="text"/> | percentage? | <input type="text"/> |
| d. Correspondence | <input type="text"/> | percentage? | <input type="text"/> |
| f. Other | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="100%"/> |

Comments:

B Objectives

1. The main objective of this course

To provide students with real life practical experience of providing specialized patient care in the field of internal medicine.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description:

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Ward round	1	9
Ward round	1	9
Ward round	1	9
Ward round	1	9
Ward round	1	9
Ward round	1	9

2. Course components (total contact and credit hours per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned				9		
	Actual						
Credit	Planned				3		
	Actual						

3. Individual study/learning hours expected for students per week.

9

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Identify common drug related problems encountered in internal medicine ward	Ward round	Case report, presentation, OSCE
1.2			
2.0	Cognitive Skills		
2.1	Rationalize drug selection keeping in view patient specific characteristics	Ward round	Case report, presentation, OSCE
2.2			
3.0	Interpersonal Skills & Responsibility		
3.1	Apply the principles of evidence-based medicine in clinical decision making	Ward round	Case report, presentation, OSCE
3.2	Monitor patients' drug related needs and treatment outcomes		
4.0	Communication, Information Technology, Numerical		
4.1	Counsel patients about the safe and effective use of medicines under the supervision of preceptor	Ward round	Case report, presentation, OSCE
4.2			
5.0	Psychomotor(if any)		
5.1	Design an appropriate pharmaceutical care plan for patients admitted to an internal medicine ward	Ward round	Case report, presentation, OSCE
5.2			

5. Assessment Task Schedule for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Case report		50%
2	Oral case presentation I		15%
3	Oral case presentation II		15%
4	Integrated OSCE		20%
5			
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

E Learning Resources

4. List Required Textbooks

- Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs (10th Edition)
- Pharmacotherapy: A pathophysiologic approach (9th Edition) Edited by: Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey
- Pharmacotherapy Principles and Practice, Third Edition (Chisholm-Burns, Pharmacotherapy) 3rd Edition
- Casebook of Pharmacotherapy: A patient focused approach (9th Edition)
- Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e

2. List Essential References Materials (Journals, Reports, etc.)

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

- <https://www.nice.org.uk/guidance>
- www.nccn.org/
- www.idsociety.org › Guidelines/Patient Care › IDSA Practice Guidelines

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

Medicine ward of the affiliated hospitals, Patient file, clinical preceptor

2. Technology resources (AV, data show, Smart Board, software, etc.)

AV, data show, Smart Board, software

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching

2. Other Strategies for Evaluation of Teaching by the Instructor or the Department
3. Procedures for Teaching Development
4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

Name of Course Instructor: _____

Signature: _____ Date Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____

COURSE SPECIFICATIONS

Form

Course Title: **Clinical Clerkship II: Critical care & Infectious diseases.**

Date: 20....-.....-.....

Institution: Umm Al Aura University.

College: College of Pharmacy

Department: . Clinical Pharmacy Department

A. Course Identification and General Information

1. Course title and code: Clinical Clerkship II: Critical care & Infectious diseases.

2. Credit hours: 3 Hours

3. Program(s) in which the course is offered.

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course: Dr. Abdul Haseeb M Hanif

5. Level/year at which this course is offered: MSc. Clinical Pharmacy/Clerkship year Semester I

6. Pre-requisites for this course (if any): NA

7. Co-requisites for this course (if any): NA

8. Location if not on main campus: NA

9. Mode of Instruction (mark all that apply):

- | | | | |
|-------------------------------------|---------------------------------|-------------|----------------------|
| a. Traditional classroom(Clinical) | <input type="text" value="60"/> | percentage? | <input type="text"/> |
| b. Blended (traditional and online) | <input type="text" value="20"/> | percentage? | <input type="text"/> |
| c. E-learning | <input type="text"/> | percentage? | <input type="text"/> |
| d. Correspondence | <input type="text" value="20"/> | percentage? | <input type="text"/> |
| f. Other | <input type="text"/> | percentage? | <input type="text"/> |

Comments:

As this is clerkship rotation, it will be mainly conducted in clinical settings in university linked teaching hospitals under supervision of faculty preceptor.

B Objectives

1. The main objective of this course

- Develop risk factor–based empiric antibiotic regimens for patients with suspected ventilator-associated pneumonia.
- Identify a definitive management strategy for central line associated bloodstream infections.
- Describe definitive and supportive care pharmacotherapeutic interventions for patients with severe influenza.
- Develop empiric and definitive antimicrobial therapy plans for patients with catheter related urinary tract infection.
- Differentiate between location of intraabdominal infection and respective empiric antimicrobial therapy.
- Describe the role of antibiotic therapy in patients with acute pancreatitis.
- Develop a definitive management strategy for critically ill patients with severe *Clostridium difficile* infection.
- Recommend definitive antibiotic therapy for patients with postoperative wound infection.
- Describe the role of pharmacotherapy in the management of severe cutaneous reactions.
- Provide empiric antibiotic therapy recommendations for critically ill patients with community-acquired or health care–associated meningitis.
- Analyze therapeutic options for the treatment of multidrugresistant pathogens in the intensive care unit (ICU).
- Devise an optimal treatment plan for critically ill immunocompromised patients with infectious diseases.
- Distinguish each of the commonly used antifungal agents and their place in therapy in an ICU setting.
- Distinguish between the various shock syndromes according to a patient’s clinical and hemodynamic parameters.
- Develop a treatment pathway for the care of patients with sepsis or septic shock that incorporates current evidence and the Surviving Sepsis Campaign guideline recommendations.
- Describe a treatment plan for patients with asthma exacerbations and acute respiratory failure from chronic obstructive pulmonary disease exacerbation.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

C. Course Description (Note: General description in the form used in the program’s bulletin or handbook)

Course Description:

The students will take up this core module during the first semester. This clerkship module will provide students with real-life practical experience of providing specialized patient care in the intensive care unit with a focus on infectious diseases. For this clerkship, students will be allocated to an ICU ward at one of the affiliated hospitals. A group of only four students (maximum) will be assigned one clinical preceptor who will mentor and monitor student progress. It is expected that students will be actively engaged in clinical activities. During this 6-week rotation, students will be required to collect and follow at least 5 cases, identify drug-related problems and prepare case reports. Students will be required to give oral on two of their selected cases.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
15. Ventilator Associated Pneumonia Case studies	1	3
16. Central Line Associated Bloodstream Infections Case studies	1	3
17. Influenza Case studies	1	3
18. catheter related urinary tract infection Case studies	1	3
19. Intraabdominal infection Case studies	1	3
20. Acute Pancreatitis Case studies	1	3
21. Clostridium difficile infections in ICU	1	3
22. Treatment of infections caused by multi drug resistant pathogens in the intensive care unit (ICU)	1	3
23. Fungal Infections Case studies	1	3
24. Shock syndromes and treatment strategies	1	3
25. Acute Respiratory Distress Syndroms in ICU	1	3
26. Endocrine emergencies in ICU	1	3
27. Fluid and Electrolyte management/ Nutrition in critically ill patients Case studies	1	3
28. Sepsis Case studies	1	3

2. Course components (total contact and credit hours per semester):

	Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total

Contact Hours	Planned	3	0	0	0	3
	Actual	3	0	0	0	3
Credit	Planned	3	0	0	0	3
	Actual	3	0	0	0	3

3. Individual study/learning hours expected for students per week.

10

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Identify a definitive management strategy for central line associated bloodstream infections	Case Based Learning Lecturing	Mid Term
1.2	Describe definitive and supportive care pharmacotherapeutic interventions for patients with severe influenza.	Case Based Learning Lecturing	Mid Term
1.3	Describe the role of antibiotic therapy in patients with acute pancreatitis.	Case Based Learning Lecturing	Mid Term
1.4	Describe the role of pharmacotherapy in the management of severe cutaneous reactions.	Case Based Learning Lecturing	OSCE
1.5	Describe a treatment plan for patients with asthma exacerbations and acute respiratory failure from chronic obstructive pulmonary disease exacerbation.	Case Based Learning Lecturing	OSCE
2.0	Cognitive Skills		
2.1	Differentiate between location of intraabdominal infection and respective empiric antimicrobial therapy.	Case Based Learning Lecturing	OSCE

2.2	Analyze therapeutic options for the treatment of multidrugresistant pathogens in the intensive care unit (ICU).	Case Basedd Learning Lecturing	MCQs Exam
2.3	Distinguish between the various shock syndromes according to a patient's clinical and hemodynamic parameters.	Case Basedd Learning Lecturing	MCQs Exam
2.4	Distinguish each of the commonly used antifungal agents and their place in therapy in an ICU setting.	Case Basedd Learning Lecturing	MCQs Exam
2.5	Differentiate between the main endocrine emergencies in the intensive care unit, and be able to design a therapeutic regimen for a patient presenting with each condition	Case Basedd Learning	MCQs Exam
3.0	Interpersonal Skills & Responsibility		
3.1	Develop risk factor–based empiric antibiotic regimens for patients with suspected ventilator-associated pneumonia.	Case Basedd Learning	OSCE
3.2	Develop empiric and definitive antimicrobial therapy plans for patients with catheter related urinary tract infection.	Case Basedd Learning	OSCE
	Develop a definitive management strategy for critically ill patients with severe <i>Clostridium difficile</i> infection.	Case Basedd Learning	OSCE
	Develop a treatment pathway for the care of patients with sepsis or septic shock that incorporates current evidence and the Surviving Sepsis campaign guideline recommendations.	Case Basedd Learning	OSCE
4.0	Communication, Information Technology, Numerical		
4.1	Recommend definitive antibiotic therapy for patients with postoperative wound infection	Case Basedd Learning	MCQs Exam
4.2	Devise an optimal treatment plan for critically ill immunocompromised patients with infectious diseases.	Case Basedd Learning	MCQs Exam
5.0	Psychomotor(if any)		
5.1	Provide empiric antibiotic therapy recommendations for critically ill patients with community-acquired or health care–associated meningitis.	Case Basedd Learning Lecturing	MCQs Exam

5. Assessment Task Schedule for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Cases presentations per week	Every Week	50 %
2	OSCE (Objecvtive structured Clinical Examination)	Last week	30 %
3	MCQs Examination	Weekly	20 %
4			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

E Learning Resources

1. List Required Textbooks

1. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs (10th Edition)
2. Pharmacotherapy: A pathophysiologic approach (9th Edition) Edited by: Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey
3. Pharmacotherapy Principles and Practice, Third Edition (Chisholm-Burns, Pharmacotherapy) 3rd Edition
4. Casebook of Pharmacotherapy: A patient focused approach (9th Edition)
5. Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e.

2. List Essential References Materials (Journals, Reports, etc.)

5. Pharmacotherapy Principles and Practice, Third Edition (Chisholm-Burns, Pharmacotherapy) 3rd Edition
6. Casebook of Pharmacotherapy: A patient focused approach (9th Edition)
7. Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e.

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

1. <https://www.nice.org.uk/guidance>
2. www.accp.org
3. www.idsociety.org › Guidelines/Patient Care › IDSA Practice Guidelines
4. www.accesspharmacy.com
5. www.pharmacylibrary.com

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

NA

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

Discussion room in hospital training center, Computer lab facility in hospital library.

2. Technology resources (AV, data show, Smart Board, software, etc.)

Smart Board, Internet Facility

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

Quizdom device to perform in class activities.

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching Weekly students satisfaction survey regarding preceptor performance and quality of internship facilities in hospital.
2. Other Strategies for Evaluation of Teaching by the Instructor or the Department .uizdom device as responses recorderQ n class activities by usingl
3. Procedures for Teaching Development
4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

Name of Course Instructor: **Dr. Abdul Haseeb M Hanif**

Signature: *Haseeb*

Date Completed: -----

Program Coordinator: _____

Signature: _____

Date Received: _____

COURSE SPECIFICATIONS

Form

Course Title: Pharmacotherapeutics III: Oncological and Pediatric diseases.

Course Code: .1805606-3

Date: 20....-.....-.....

Institution: UQU.

College: . Pharmacy..... Department:Clinical pharmacy.....

A. Course Identification and General Information

1. Course title and code: Pharmacotherapeutics III: Oncological and Pediatric diseases 1805606-3

2. Credit hours: 4

3. Program(s) in which the course is offered.

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course: Sahar Mohy El-Ashmony

5. Level/year at which this course is offered: post graduates

6. Pre-requisites for this course (if any): **1805601-3**

7. Co-requisites for this course (if any):

8. Location if not on main campus: Hospital

9. Mode of Instruction (mark all that apply):

a. Traditional classroom	<input checked="" type="checkbox"/> ves	percentage?	<input type="text" value="50"/>
b. Blended (traditional and online)	<input type="checkbox"/>	percentage?	<input type="text"/>
c. E-learning	<input checked="" type="checkbox"/> ves	percentage?	<input type="text" value="20"/>
d. Correspondence	<input type="checkbox"/>	percentage?	<input type="text"/>
f. Other	<input checked="" type="checkbox"/> ves	percentage?	<input type="text" value="30"/>

Comments:

B Objectives

1. The main objective of this course

In this course, from the pathophysiology to the evidence-based management of different types of oncological and pediatric disorders, all aspects will be covered comprehensively.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

More hospitals contacts for students training will be done

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description: This core course will be delivered during the second semester. In this course, from the pathophysiology to the evidence-based management of different types of oncological and pediatric disorders, all aspects will be covered comprehensively. Detailed list of the topics is given below. Both traditional lecture based and problem based teaching methods will be employed to enhance students' learning experience. After completing the lecture series, students will spend 4 weeks in oncology ward to gain hands on experience. The students will collect 5 cases individually and prepare case reports. Students are required to give one oral presentation.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
1. Chemotherapeutic agents for cancer		4
2. Management of breast cancer		

3. Management of colon cancer		4
4. Management of prostate cancer		4
5. Management of ovarian cancer		4
6. Management of lung cancer		4
7. Management of lymphomas and leukemia		4
8. Palliative care in cancer patients		4
9. Management of chemotherapy associated side effects		4
10. Drug dosing in pediatric patients		4
11. Immunization		4
12. Attention Deficit Hyperactivity Disorders		4

2. Course components (total contact and credit hours per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	2			2		4
	Actual	2			2		4
Credit	Planned	2			1		3
	Actual	2			1		3

3. Individual study/learning hours expected for students per week.

4

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Recognize the disease problems (pathophysiology)	Data show description	Written exam
1.2	Describe the complications	Illustrations	Written exam
2.0	Cognitive Skills		
2.1	Explain the rationale for the use of certain drugs in the therapy of a given disease based on recent guidelines	Lecture/Case Studies	Written exam Case report
2.2	Collect data and information and perform interpretation and draw conclusions.	Hospital training	Case presentation
3.0	Interpersonal Skills & Responsibility		
3.1	Illustrate factors that may affect drug selection in a specific patient with multiple diseases and medications	Case Studies Hospital training	Integrated OSCE
3.2			
4.0	Communication, Information Technology, Numerical		
4.1	Discuss and remain open to differences of opinion and defend rational opinions that differ from those of other colleagues	Case Studies Hospital training	Case report Integrated OSCE
4.2			
5.0	Psychomotor(if any)		
5.1			
5.2			

5. Assessment Task Schedule for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
--	---	----------	--------------------------------

1	Midterm exam (MCQ only)		15%
2	Case report		10%
3	Case presentation		10%
4	Integrated OSCE		20%
5	Final Exam (MCQ and Essay)		45%
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

Dr Sahar El-Ashmony

Email: smashmony@uqu.edu.sa

E Learning Resources

1. List Required Textbooks

1. Chisholm-Burns, M. A., Schwinghammer, T. L., Wells, B. G., Malone, P. M., Kolesar, J. M. & DiPiro, J. T. (2016). Pharmacotherapy Principles & Practice (4th edition): McGraw-Hill.

2. Alldredge, B. K., Corelli, R. L., Ernst, M. E., Guglielmo, B. J., Jacobson, P. A., Kradjan, W. A. & Williams, B. R. (2013). Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs (10th edition): Lippincott Williams & Wilkins.

2. List Essential References Materials (Journals, Reports, etc.)

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

<https://online.lexi.com/>

<http://www.uptodate.com/contents/search>

<http://www.fda.gov/>

<http://www.ema.europa.eu/ema/>

<http://www.medscape.com/>

<http://www.tg.org.au/>

<http://www.ncbi.nlm.nih.gov/pubmed>

<http://www.resourcepharm.com/>

<http://www.merckmanuals.com/professional>

<https://www.nice.org.uk/guidance>

www.nccn.org

www.idsociety.org

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

Classrooms are of enough sizes

2. Technology resources (AV, data show, Smart Board, software, etc.)

Computing resources are available in the university library

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching

University used to measure students feedback about the course every few years. In addition, a special form was designed by the department and are given at the end of term to measure the students feedback about the quality of teaching and course contents. Information in this feedback form are treated confidentially and students are not asked to write their names in it.

2. Other Strategies for Evaluation of Teaching by the Instructor or the Department

Any complain from students about quality of teaching and/ or course contents are always treated confidentially and considered and discussed well to find the solutions for it. In addition, as

mentioned previously the department form for students feedback are also seen and analyzed to improve any shortage in any aspects or matters.

3. Procedures for Teaching Development

Department teaching staff are always encourage to update their knowledge in the field of work by attending national and international conferences and self developments courses held inside or outside the university campus and a record of that is kept for each academic staff.

4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution) independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)

All students exam are designed to be corrected and marked by computer program to minimize the human errors. In addition, a member from an institution other from the university is asked annually to join in teaching and assessing the students.

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

The course content are reviewed and updated annually at the beginning of each academic year by the department curriculum committee and any major changes are reported to the college curriculum committee

Name of Course Instructor: Dr. Sahar M. El-Ashmony

Signature: _____ **Date Completed:** _____

Program Coordinator: _____

Signature: _____ **Date Received:** _____

Kingdom of Saudi Arabia
Ministry of Education
Umm Al-Qura University
Deanship of Graduate Studies



المملكة العربية السعودية
وزارة التعليم
جامعة أم القرى
عمادة الدراسات العليا

COURSE SPECIFICATIONS

Form

Course Title: Pharmacotherapeutics IV

Course Code: 185607-3

Date: 20 -3-1440	Institution: UQU
College: Pharmacy	Department: Clinical Pharmacy

A. Course Identification and General Information

1. Course title: Pharmacotherapeutics IV	Code: 185607-3
2. Credit hours: 3 (2+1)	
3. Program(s) in which the course is offered. Master of Clinical Pharmacy	
4. Name of faculty member responsible for the course: Dr. Amal Y. Mahmoud	
5. Level/year at which this course is offered: Postgraduate	
6. Pre-requisites for this course (if any): Pharmacy graduates (B-Pharm or Pharm D)	
7. Co-requisites for this course (if any): NA	
8. Location if not on main campus: Al-Abddia campus	
9. Mode of Instruction (mark all that apply):	
a. Traditional classroom	<input checked="" type="checkbox"/> percentage? <input type="text" value="40"/>
b. Blended (traditional and online)	<input checked="" type="checkbox"/> percentage? <input type="text" value="20"/>
c. E-learning	<input checked="" type="checkbox"/> percentage? <input type="text" value="20"/>
d. Correspondence	<input type="checkbox"/> percentage? <input type="text"/>
f. Other (PBL)	<input type="checkbox"/> percentage? <input type="text" value="20"/>
Comments:	

B Objectives

1. The main objective of this course

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

1. Discuss pathophysiology of studied disease conditions.
2. Explain the rationale for selecting a particular drug therapy based on recent evidence-based guidelines.
3. Identify common drug related problems which can affect patient outcomes.
4. Comment on patient-specific and drug-specific parameters to initiate and monitor drug therapy and treatment outcomes in patients with various specific disease conditions.
5. Calculate appropriate doses for patients with renal impairment.
6. Design an appropriate evidence based pharmaceutical care plan for patients with kidney, bone and respiratory system disorders.
7. Counsel patients on the safe and effective use of medicines under the supervision of preceptor.

2. Describe briefly any plans for developing and improving the course that are being implemented. This course is reviewed and will be updated according to the recent and current information, data bases, researches and discoveries in this field

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description:

This core course will be delivered during the second semester. From the pathophysiology to the evidence-based management of different types of kidney, bone and soft tissue, and respiratory system disorders will be covered. Detailed list of the topics is given below. Both traditional lecture based and problem-based teaching methods will be employed to enhance students' learning experience. After completing the lecture series, students will spend 4 weeks in internal medicine ward to gain hands on experience. The students will collect 5 cases individually and prepare case reports. Students are required to give one oral presentation.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
----------------	--------------	---------------

Connective tissue disorders	1	4
Gout/Hyperuricemia	1	4
Osteoarthritis and Osteoporosis	1	4
Rheumatoid arthritis	1	4
Acute renal failure	1	4
Chronic renal failure	1	4
Drug dosing in Renal Dialysis	1	4
Glomerulonephritis	1	4
Nephrolithiasis	1	4
Asthma	1	4
Chronic obstructive airway disease (other than asthma)	1	4
Cystic fibrosis Cystic fibrosis	1	4

2. Course components (total contact and credit hours per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	12	12		24		48
	Actual	12	12		24		48
Credit	Planned	12	12		12		36
	Actual	12	12		12		36

3. Individual study/learning hours expected for students per week.

5

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map			
Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Describe appropriate therapies of selected diseases	Lectures Class discussion	Written exams Case report
1.2	Discuss relationships between rational therapy of selected diseases to the pathophysiology of these diseases	Videos PBL Mind maps	
2.0	Cognitive Skills		
2.1	Discuss potential drug related problems in patients with selected diseases	Case discussion Case presentation	Written exams Case report Case presentations
2.2	Formulate evidence- based care plans, assessments, and recommendations.	PBL Assignment	
2.3	Provide a plan for monitoring drug efficacy, adverse effects, compliance and drug interactions	Role play Mind maps	
3.0	Interpersonal Skills & Responsibility		
3.1	Show effective communication and positive relation with others and be able to work as an effective member in a team.	Case presentation Assignment	Written exams Case report Case presentations OSCE
3.2	Show commitment to keeping up to date with developments in their field, learning to learn and life-long learning	PBL Role play	
4.0	Communication, Information Technology, Numerical		
4.1	Use technology in collecting data and Use principals of e-learning	1- encourage students to use materials on the web extensively	Case report Case presentations OSCE
4.2	Communicate effectively in oral and written form	2- encourage students to use e-learning when they submit their homework and participate in on line discussion	

5.0	Psychomotor(if any)		
5.1	NA		
5.2			

5. Assessment Task Schedule for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Midterm exam (MCQ only)	6 th	15%
2	Case report	4 th , 5 th , 7 th , 8 th , 9 th .	10%
3	Integrated OSCE	12 th	15%
4	Final Exam (MCQ and Essay)	14 th	45%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)
 - Course organiser and lecturers of the course are ready to answer all students' queries during or after the lectures. They can be reached by personal meeting, phones or e-mails.
 - All students have the e-mail of the course organiser.Office hours for the course organiser and lecturer of the course are given to students; this is at least 4 hours per week divided into two days.

E Learning Resources

1. List Required Textbooks
 1. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs (10th Edition)
 2. Pharmacotherapy: A pathophysiologic approach (9th Edition) Edited by: Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey
 3. Pharmacotherapy Principles and Practice, Third Edition (Chisholm-Burns, Pharmacotherapy) 3rd Edition
 4. Casebook of Pharmacotherapy: A patient focused approach (9th Edition)
 5. Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e.
2. List Essential References Materials (Journals, Reports, etc.)
3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
 - <https://www.nice.org.uk/guidance>
 - www.nccn.org/
 - www.idsociety.org > Guidelines/Patient Care > IDSA Practice Guidelines
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

- Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
Clinical pharmacy classrooms are available in the faculty of pharmacy campus which is enough to accommodate at least 50 students.
 2. Technology resources (AV, data show, Smart Board, software, etc.)
Computing resources available are; data show and free access to King Abdulla library
 3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

- 1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching**
University used to measure students feedback about the course every few years. In addition, a special form was designed by the faculty and are given at the end of term to measure the student's feedback about the quality of teaching and course contents. Information in this feedback form are treated confidentially and students are not asked to write their names in it.
- 2. Other Strategies for Evaluation of Teaching by the Instructor or the Department**
Any complain from students about quality of teaching and/ or course contents are always treated confidentially, considered, and discussed well to find the solutions for it. In addition, as mentioned previously the department form for students feedback are also seen and analyzed to improve any shortage in any aspects or matters.
- 3. Procedures for Teaching Development**
Department teaching staff are always encourage to update their knowledge in the field of work by attending national and international conferences and self-developments courses held inside or outside the university campus and a record of that is kept for each academic staff.
- 4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)**
All students' exam are designed to be corrected and marked by computer programme to minimize the human errors. In addition, a member from an institution other from the university is asked annually to join in teaching and assessing the students.
- 5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.**
The course content is reviewed and updated annually at the beginning of each academic year by the department curriculum committee and any major changes are reported to the college curriculum committee.

Name of Course Instructor: Dr. Amal Y. Mahmoud

Signature: _____ **Date Completed:** _____

Program Coordinator: _____

Signature: _____ **Date Received:** _____

COURSE SPECIFICATIONS

Form

Course Title: Advanced Pharmacy Practice and
Pharmaceutical Care Services

Course Code: 1805608-3

Date: 20....-.....-.....

Institution: UQU

College: Pharmacy Department: Clinical Pharmacy

A. Course Identification and General Information

1. Course title and code: Advanced Pharmacy Practice and Pharmaceutical Care Services, 1805608-3

2. Credit hours: 3

3. Program(s) in which the course is offered: Master's in clinical pharmacy

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course: Dr. Yasser Alatawi and Dr .Mohammad Tarique Imam

5. Level/year at which this course is offered: 2nd Semester

6. Pre-requisites for this course (if any): 1806103-3

7. Co-requisites for this course (if any):

8. Location if not on main campus:

9. Mode of Instruction (mark all that apply):

- | | | | |
|-------------------------------------|-------------------------------------|-------------|---------------------------------|
| a. Traditional classroom | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="50"/> |
| b. Blended (traditional and online) | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="30"/> |
| c. E-learning | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="20"/> |
| d. Correspondence | <input type="checkbox"/> | percentage? | <input type="text"/> |
| f. Other | <input type="checkbox"/> | percentage? | <input type="text"/> |

Comments:

B Objectives

1. The main objective of this course:

To equip graduates with necessary knowledge and skills required for advanced pharmacy practice.

2. Describe briefly any plans for developing and improving the course that are being implemented.

There will be a continues process of reviewing relevant literature to guide any modification to the implemented course.

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description:

The course covers topics in advanced pharmacy practice and pharmaceutical care services focusing on the implementation of advance pharmaceutical services within the Saudi's healthcare system.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Hospital pharmacy practice	1	3
Community pharmacy service	1	3
Pharmacovigilance and Adverse drug reactions	2	3
Advanced pharmacokinetics	2	3
Clinical application of therapeutic drug monitoring	1	3
Total parenteral nutrition	1	3
Pharmaceutical care	1	3
Medication review	1	3
Pharmacist-led clinical services	1	3
Introduction to health economics	1	3
Application of health economics in decision making	1	3

2. Course components (total contact and credit hours per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	39					39
	Actual						
Credit	Planned	3					3
	Actual						

3. Individual study/learning hours expected for students per week.

4

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Cod e #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Explain the working of hospital and community pharmacy and the role of pharmacist in Saudi healthcare system.	Theoretical lectures Problem solving	Assignments, midterms and final exams
1.2	Explain the importance of adverse drug reaction reporting in safe and effective use of medicines	Theoretical lectures Problem solving	Assignments, midterms and final exams
1.3	Apply the principles of health economics and clinical decision making	Theoretical lectures Problem solving	Assignments, midterms and final exams
1.4	Apply the principles of pharmacokinetics in calculating and titrating dose to ensure patient safety and positive therapeutic outcomes.	Theoretical lectures Problem solving	Assignments, midterms and final exams
1.5	Categorize pharmaceutical care issues/drug related problems and devise plans to resolve them.	Theoretical lectures Problem solving	Assignments, midterms and final exams
1.6	Design a medication review service for patients.	Theoretical lectures Problem solving	Assignments, midterms and final exams
2.0	Cognitive Skills		
2.1	The student abilities to translate acquired knowledge into word of his/her own.	Class discussion	Assignments, midterms and final exams

2.2	The student solves lifelike problem that requires identification of the issue and propose an appropriate course of action	Class discussion	Assignments, midterms and final exams
3.0	Interpersonal Skills & Responsibility		
3.1	Student shows the ability to work with others.	Class discussion	Journal club
3.2	Students shows the ability to seek knowledge and find solution to problem without an outside assistance.	Class discussion	Journal club
4.0	Communication, Information Technology, Numerical		
4.1	Student shows ability to use scientific language during class discussion.	Class discussion	Journal club
5.0	Psychomotor(if any)		
5.1			

5. Assessment Task Schedule for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Assignment (medication review)	3	10
2	Assignment (health economics)	6	10
3	Journal club (Pharmacist-led services)	9	10
4	Midterm exam		15
5	Final Exam		55
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

-Students can approach faculty member during the office hours to ask questions or clarify points missed during the lecture.

- Students can communicate with the faculty member through the university email and ask questions related to all aspects of the course. The students will get a reply as soon as possible.

E Learning Resources

1. List Required Textbooks

- Essentials of Pharmacoeconomics by Karen Rascati, 2nd edition
- Pharmacoeconomics: Principles and Practice by Lorenzo Pradelli and Albert Wertheimer
- Introduction to Hospital and Health-System Pharmacy Practice by David A. Holdford and Thomas R. Brown
- Managed Care Pharmacy Practice 2nd Edition by Robert P. Navarro
- ASHP Best Practices 2014-2015 (ASHP, Best Practices of Hospitals & Health-System Pharmacy)

2. List Essential References Materials (Journals, Reports, etc.)

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

<https://www.pharmalessons.com/free-courses/gvptraining/>

<https://www.who-umc.org/education-training/online-courses/>

<http://www.who.int/management/newitems/en/index1.html>

<https://accesspharmacy.mhmedical.com/book.aspx?bookID=1374>

<http://apps.who.int/medicinedocs/documents/s19622en/s19622en.pdf>

www.ukmi.nhs.uk/filestore/ukmiacg/FINALResourceswithFreeAccess_May15.doc

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

Yes

2. Technology resources (AV, data show, Smart Board, software, etc.)

Yes

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching

-Survey the students after completing the course

2. Other Strategies for Evaluation of Teaching by the Instructor or the Department

-Self- and department evaluation

3. Procedures for Teaching Development

-Training and workshops

4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an Independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)

-Check marking by an independent faculty member of a sample of student work.

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

-Assess students feedback about the course and develop an improvement plan to be implemented.

-Identifies the strengths and weakness of the course and develop an improvement plan to be implemented.

Name of Course Instructor: Dr. Yasser and Dr. Mohammad Tarique Imam

Signature: _____ Date Completed: 06/11/2018

Program Coordinator: Dr. Yasser Alatawi

Signature: _____ Date Received: _____

COURSE SPECIFICATIONS Form

Course Title... **Clinical Clerkship III: Pediatric.**

Course Code. **1805605-3.....**

Date: 2018/11/20

Institution:Umm Al Qura university...

College: Pharmacy....

Department:Clinical Pharmacy...

A. Course Identification and General Information

1. Course title and code: **Clinical Clerkship III: Pediatrics**

2. Credit hours: 9

3. Program(s) in which the course is offered.

(If general elective available in many programs indicate this rather than list programs):
master program

4. Name of faculty member responsible for the course: Dr. Shaimaa Mahmoud

5. Level/year at which this course is offered: master program (first semester)

6. Pre-requisites for this course (if any): Therapeutics, Pharmacology

7. Co-requisites for this course (if any): Pathophysiology, Pharmacokinetics

8. Location if not on main campus: Main campus

9. Mode of Instruction (mark all that apply):

a. Traditional classroom	<input checked="" type="checkbox"/>	percentage?	<input type="text" value="20%"/>
b. Blended (traditional and online)	<input checked="" type="checkbox"/>	percentage?	<input type="text" value="10%"/>
c. E-learning	<input type="checkbox"/>	percentage?	<input type="text" value="10%"/>
d. Correspondence	<input type="checkbox"/>	percentage?	<input type="text"/>
f. Other(hospital rotation)	<input checked="" type="checkbox"/>	percentage?	<input type="text" value="60%"/>

Comments:

B Objectives

8. The main objective of this course:

- a) Rationalize drug selection keeping in view patient specific characteristics.
- b) Identify common drug related problems encountered in pediatric patients.
- c) Apply the principles of evidence-based medicine in clinical decision making.
- d) Monitor patients' drug related needs and treatment outcomes.
- e) Counsel patients or their care providers about the safe and effective use of medicines.
- f) Design an appropriate pharmaceutical care plan for patients admitted to a pediatric ward

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field):

Design a new educational material of pharmaceutical computer software's [Pharmacy simulator] to advance clinical services outcome.

Using of e-learning tutorial to encourage students to think critically in the course academic activities

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description: The pharmacy pediatric rotation affords students the opportunity to integrate basic pharmacy-related concepts to pediatric patient care as a member of an interdisciplinary health care team and provider of patient-centered care in the hospital setting. Using an educator-practitioner as a role model, the student will directly involve him or herself in the development of medication treatment regimens for selected patients. The educational experience may include evaluating literature, interviewing patients, interpreting data, assessing drug therapy, making recommendations for and monitoring drug therapy, and understanding and utilizing the evidence-based principles of medicine needed to develop an optimal therapeutic plan for pediatric patients with disease states such as otitis media, sepsis, meningitis, bronchiolitis, croup,

asthma, bronchopulmonary dysplasia, seizures, and preventative health maintenance (e.g. immunizations).

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Pediatric and Neonatal Sepsis and Meningitis	1	9
Gastroenteritis/Oral Rehydration Solutions/Formulas	2	9
Reactive Airway Disease (includes Asthma, Bronchopulmonary Dysplasia, Bronchiolitis and Croup)	3	9
Seizure Disorders and Febrile Seizures	4	9
Proteinuria/renal disease in children	5	9
Pediatric hematology (sickle cell anemia, Thalassemia, Hemophilia and	6	9

2. Course components (total contact and credit hours per semester):							
		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned		10		40	4	54
	Actual						
Credit	Planned		3		5	1	9
	Actual						

3. Individual study/learning hours expected for students per week.

10

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes.

Third, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Identify patients at risk for adverse drug reactions.	- clinical rotation discussion	Case Presentation and Written exams will be used to assess the student's knowledge in this field
1.2	Identify patient-specific monitoring parameters for all drug therapies	- clinical rotation discussion	Case Presentation
1.3	Identify and provide effective health promotion and disease prevention services including educating patients about behaviors that promote health, maintain wellness, prevent and control disease.	- clinical rotation discussion - Class discussion and activity	Students are asked to prepare and present a lecture about subject related to the course using a power point program OSCE
2.0	Cognitive Skills		
2.1	Contribute to the pharmaceutical care system's process for reporting and managing medication errors and adverse drug reactions	- clinical rotation discussion	Journal club
2.2	Apply pharmacokinetic and/or pharmacodynamic principles and patient data to determine the most appropriate dosing regimen and/or drug delivery system for the patient.	- clinical rotation discussion	OSCE
3.0	Interpersonal Skills & Responsibility		
3.1	Recognize health care disparities and assure that individual members of a patient population receive appropriate pharmaceutical care services.	- clinical rotation discussion	Case presentation OSCE

3.2	assess the patient's/caregiver's self-management skills (i.e., medication adherence and/or ability to correctly use their drug regimen or device). Recognize the patient's/caregiver's level of health literacy.	- clinical rotation discussion - Class discussion and activity	Written CASE exam will be used to assess the student's knowledge in this field
4.0	Communication, Information Technology, Numerical		
4.1	Communicate and interact in a professional and culturally sensitive manner including demonstrating respect and sensitivity for others, being open-minded and nondiscriminatory, and maintaining patient confidentiality.	- clinical rotation	OSCE
4.2			
5.0	Psychomotor(if any)		
5.1	Demonstrate professional behavior including, but not limited to, punctuality, reliability, meeting deadlines, dressing appropriately, and assuming responsibility for one's actions.	- clinical rotation	OSCE
5.2	Maintain high standards with regard to moral, ethical and legal conduct.	- clinical rotation	Written exams will be used to assess the student's knowledge in this field

5. Assessment Task Schedule for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Written case report	TBA	50%
2	Oral case presentation I	TBA	15%
3	Oral case presentation II		15%
4	Integrated OSCE		20%
5			
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

1. Office hours for student consultation: Sunday 10 – 1 / Thursday 10 – 1.

2. Online consultation for student via what's app and the official faculty webpage at the university website .

Course coordinator and lecturers of the course are happy to answer all students' queries during or after the lectures, and they can be reached by personal meeting, phones or e-mails.

-Student representatives usually have the mobile number of the course coordinator to contact him in case of any queries.

-All students have the e-mail of the course organizer.

- Office hours for the course organizer and lecturer of the course are given to students, this is at least 4 hours per week divided into two days

E Learning Resources

1. List Required Textbooks:

- a) Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs (10th Edition)
- b) Pharmacotherapy: A pathophysiologic approach (9th Edition) Edited by: Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey
- c) Pharmacotherapy Principles and Practice, Third Edition (Chisholm-Burns, Pharmacotherapy) 3rd Edition
- d) Casebook of Pharmacotherapy: A patient focused approach (9th Edition)
- e) Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e.

2. List Essential References Materials (Journals, Reports, etc.)

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

- a) <https://www.nice.org.uk/guidance>
- b) www.nccn.org/
- c) www.idsociety.org › Guidelines/Patient Care › IDSA Practice Guidelines

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

2. Technology resources (AV, data show, Smart Board, software, etc.)

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching

University used to measure students' feedback about the course every few years. In addition, a special form was designed by the department and are given at the end of term to measure the student's feedback about the quality of teaching and course contents. Information in this feedback form are treated confidentially and students are not asked to write their names in it.

2. Other Strategies for Evaluation of Teaching by the Instructor or the Department:
Any complain from students about quality of teaching and/ or course contents are always treated confidentially and considered and discussed well to find the solutions for it. In addition, as mentioned previously the department form for students feedback are also seen and analyzed to improve any shortage in any aspects or matters.

3. Procedures for Teaching Development:

Department teaching staff are always encouraging to update their knowledge in the field of work by attending national and international conferences and self-developments courses held inside or outside the university campus and a record of that is kept for each academic staff.

4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)

All student's exam is designed to be corrected and marked by computer program to minimize the human errors. In addition, a member from an institution other from the

university is asked annually to join in teaching and assessing the students.

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

Name of Course Instructor: _____

Signature: _____ Date Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____

COURSE SPECIFICATIONS

Form

Course Title: **Clinical clerkship IV: Oncology...**

Course Code: **1805610**

Date: 20-..... 3.....-1440

Institution: Umm Al-Qura University..

College: Faculty of Pharmacy.. Department: Clinical Pharmacy department.....

A. Course Identification and General Information

1. Course title and code: Clinical clerkship IV: Oncology 1805610

2. Credit hours: 3 clinical practice

3. Program(s) in which the course is offered. Pharm D/ B pharm

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course: Dr. Sahar M. El-Ashmoony

MD Clinical Pharmacology

5. Level/year at which this course is offered: Post graduates

6. Pre-requisites for this course (if any): Graduates of Pharm D/ B pharm

7. Co-requisites for this course (if any):

8. Location if not on main campus: Affiliated hospitals

9. Mode of Instruction (mark all that apply):

a. Traditional classroom	<input type="text"/>	percentage?	<input type="text"/>
b. Blended (traditional and online)	<input type="text"/>	percentage?	<input type="text"/>
c. E-learning	<input checked="" type="checkbox"/>	percentage?	20
d. Correspondence	<input type="text"/>	percentage?	<input type="text"/>
f. Other	<input checked="" type="checkbox"/>	percentage?	80

Comments: other in the hospitals

B Objectives

1. The main objective of this course

This clerkship module will provide students with real life practical experience of providing specialized patient care in the field of oncology.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

This course is reviewed and up dated by clinical pharmacy staff according to the recent and current information, data bases, researches and discoveries in this field.

Hospital communications are going on.

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description:

The students will take this core module during the second semester. This clerkship module will provide students with real life practical experience of providing specialized patient care in the field of oncology. For this clerkship, students will be attached to an oncology ward at one of the affiliated hospitals. The clerkship is designed to cover both solid organ tumors and hematological malignancies, spending 3 weeks in each area. A group of only two students will be assigned one clinical preceptor who will mentor and monitor student progress. It is expected that students will be actively engaged in clinical activities. During this 6 weeks rotation, students will be required to collect and follow at least 5 cases, identify drug related problems and prepare a case reports. Students will be required to give oral presentation on two of their selected cases.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Solid organ tumors (Lung cancer)	1	3
Solid organ tumors (Breast cancer)	2	3

Solid organ tumors (Cancer colon)	3	3
Hematological malignancies (Leukemias)	4	3
Hematological malignancies (Lymphomas)	5	3
Hematological malignancies (Multiple myeloma)	6	3

2. Course components (total contact and credit hours per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned				3		
	Actual				3		
Credit	Planned						
	Actual						

3. Individual study/learning hours expected for students per week.

3

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Recognize the disease problems	Illustrations	Oral case presentation
1.2	Describe the complications	Group discussion	Oral case presentation
2.0	Cognitive Skills		
2.1	Rationalize drug selection keeping in view patient specific characteristics	Group discussion	Oral case presentation Oral case presentation
2.2	Identify common drug related problems encountered in oncology ward.	Hospital rounds	Written case report

3.0	Interpersonal Skills & Responsibility		
3.1	Apply the principles of evidence-based medicine in clinical decision making	Hospital rounds	Integrated OSCE
3.2	Monitor patients' drug related needs and treatment outcomes	Group discussion	Written case report
4.0	Communication, Information Technology, Numerical		
4.1	Counsel patients about the safe and effective use of medicines	Hospital rounds	Integrated OSCE
4.2	Design an appropriate pharmaceutical care plan for patients admitted to an oncology ward	Group discussion	Journal club
5.0	Psychomotor(if any)		
5.1			
5.2			

5. Assessment Task Schedule for Students During the Semester			
	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Written case report	4	50%
2	Oral case presentation I	2	15%
3	Oral case presentation II	3	15%
4	Integrated OSCE	5	15%
5	Journal club	6	5%
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

E Learning Resources

1. List Required Textbooks
2. Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs (10th Edition)
3. Pharmacotherapy: A pathophysiologic approach (9th Edition) Edited by: Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey
4. Pharmacotherapy Principles and Practice, Third Edition (Chisholm-Burns, Pharmacotherapy) 3rd Edition
5. Casebook of Pharmacotherapy: A patient focused approach (9th Edition)
6. Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e.

2. List Essential References Materials (Journals, Reports, etc.)

1. <https://www.nice.org.uk/guidance>
2. www.nccn.org/
3. www.idsociety.org › Guidelines/Patient Care › IDSA Practice Guidelines

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
Classrooms are of enough sizes

2. Technology resources (AV, data show, Smart Board, software, etc.)

Computing resources are available in the university library

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

Hospital communications are going on

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching

University used to measure students feedback about the course every few years. In addition, a special form was designed by the department and are given at the end of term to measure the students feedback about the quality of teaching and course contents. Information in this feedback form are treated confidentially and students are not asked to write their names in it.

2. Other Strategies for Evaluation of Teaching by the Instructor or the Department

Any complain from students about quality of teaching and/ or course contents are always treated confidentially and considered and discussed well to find the solutions for it. In addition, as mentioned previously the department form for students feedback are also seen and analyzed to improve any shortage in any aspects or matters.

3. Procedures for Teaching Development

Department teaching staff are always encouraged to update their knowledge in the field of work by attending national and international conferences and self developments courses held inside or outside the university campus and a record of that is kept for each academic staff.

4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)

A member from an institution other from the university or from the hospital is asked annually to join in teaching and assessing the students.

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

The course content are reviewed and updated annually at the beginning of each academic year by the department curriculum committee and any major changes are reported to the college curriculum committee

Name of Course Instructor: _____

Signature: _____ Date Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____

COURSE SPECIFICATIONS Form

Course Title: Psychiatric disorders and Neurology

Course Code:.....1805701-3

Date: 20.10...-.12...-.2018....

Institution: Qura -Umm Al.....
.... University

College: ...Pharmacy.....

Department:Clinical Pharmacy.....

A. Course Identification and General Information

1. Course title and code: Psychiatric disorders and Neurology/1805701-3

2. Credit hours: 5

3. Program(s) in which the course is offered. Master of Clinical Pharmacy

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course: Dr Mahmoud Elrggal

5. Level/year at which this course is offered: Master

6. Pre-requisites for this course (if any): 1805607-3

7. Co-requisites for this course (if any):

8. Location if not on main campus: On-Campus

9. Mode of Instruction (mark all that apply):

- | | | | |
|-------------------------------------|---------------------------------|-------------|---------------------------------|
| a. Traditional classroom | <input type="text" value="30"/> | percentage? | <input type="text" value="43"/> |
| b. Blended (traditional and online) | <input type="text" value="25"/> | percentage? | <input type="text" value="36"/> |
| c. E-learning | <input type="text" value="15"/> | percentage? | <input type="text" value="21"/> |
| d. Correspondence | <input type="text"/> | percentage? | <input type="text"/> |
| f. Other | <input type="text"/> | percentage? | <input type="text"/> |

Comments:

B Objectives

1. The main objective of this course

The main objective of this course is to cover pathophysiology to the evidence-based management of different types of psychiatric and neurological disorders.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description: This final therapeutic core course will be delivered during the third semester. From the pathophysiology to the evidence-based management of different types of psychiatric and neurological disorders will be covered. Detailed list of the topics is given below. Both traditional lecture based and problem-based teaching methods will be employed to enhance students' learning experience. After completing the lecture series, students will spend 4 weeks in psychiatric ward to gain hands on experience. The students will collect 5 cases individually and prepare case reports. Students are required to give one oral presentation.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Anxiety and depression	2	3
Schizophrenia	3	3
Bipolar disorder	4	3
Substance abuse and addiction	5	3
Eating disorders	6	3
Stroke	7	3
Headache	8	3
Migraine	9	3
Parkinson's disease	10	3
Alzheimer's disease	11	3

2. Course components (total contact and credit hours per semester):

	Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact	Planned	15		15		30

Hours	Actual						
Credit	Planned	5					5
	Actual						

3. Individual study/learning hours expected for students per week.

10

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Discuss pathophysiology of various psychiatric and neurological diseases included in the module.	Lecture & practical	Exam
1.2			
2.0	Cognitive Skills		
2.1	Explain the rationale for selecting a particular drug therapy for the studied disease states and discuss relevant clinical controversies surrounding drug therapy.	Lecture & practical	Exam, case
2.2			
3.0	Interpersonal Skills & Responsibility		
3.1	Identify common drug related problems which can affect patient outcomes.	Lecture & practical	OSCE, case
3.2			
4.0	Communication, Information Technology, Numerical		
4.1	Comment on patient-specific and drug-specific parameters to initiate and monitor drug therapy and treatment outcomes.	Lecture & practical	Exam, case
4.2			
5.0	Psychomotor(if any)		
5.1	Design an appropriate evidence based pharmaceutical care plan for patients with various psychiatric and neurological diseases.	Lecture & practical	OSCE, case
5.2			

5. Assessment Task Schedule for Students During the Semester			
	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	term examMid		15%
2	Written case report		15%
3	Oral case presentation		10%
4	OSCE		15%
5	Final exam		45%
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)
All announcements and communication with students will be conducted via e-learning site of the course. All relevant documents including lecture slides and other learning and teaching material will be uploaded on the e-learning site. It is the responsibility of students to check their e-learning site regularly.
Any questions concerning the teaching of this course can be made by contacting your course coordinator.

E Learning Resources

1. List Required Textbooks
Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs (10th Edition)
Pharmacotherapy: A pathophysiologic approach (9th Edition) Edited by: Joseph T. Di Piro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey
2. List Essential References Materials (Journals, Reports, etc.)
www.idsociety.org › Guidelines/Patient Care › IDSA Practice Guidelines
3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
<https://www.nice.org.uk/guidance>
www.nccn.org/
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

- Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
Classroom
 2. Technology resources (AV, data show, Smart Board, software, etc.)
Projector (teaching staff bring their own laptop)
 3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)
No other resources available.

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching
End of course survey
2. Other Strategies for Evaluation of Teaching by the Instructor or the Department
Informal feedback
3. Procedures for Teaching Development
No procedure for teaching development in the college.

4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution) Internal review of exam marking.

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.
None

Name of Course Instructor: _____

Signature: _____ Date Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____

COURSE SPECIFICATIONS Form

Course Title: Social and Administrative Pharmacy

Course Code: 1805702-3

Date: 20....-.....-.....

Institution: Umm Al Qura University.....

College: Pharmacy Department: Clinical Pharmacy

A. Course Identification and General Information

1. Course title and code: Social and administrative pharmacy - 1805702-3

2. Credit hours:3

3. Program(s) in which the course is offered: Master of Clinical Pharmacy

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course: Dr/Mohamed Medhat- Dr/ Shaimaa Mahmoud

5. Level/year at which this course is offered: Postgraduate students

6. Pre-requisites for this course (if any): B-Pharm or PharmD

7. Co-requisites for this course (if any):

8. Location if not on main campus: Main Campus

9. Mode of Instruction (mark all that apply):

- | | | | |
|-------------------------------------|-------------------------------------|-------------|----------------------------------|
| a. Traditional classroom | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="70%"/> |
| b. Blended (traditional and online) | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="20%"/> |
| c. E-learning | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="10%"/> |
| d. Correspondence | <input type="checkbox"/> | percentage? | <input type="text"/> |
| f. Other | <input type="checkbox"/> | percentage? | <input type="text"/> |

Comments:

B Objectives

1. The main objective of this course

1-Understand relation of interaction of drugs versus society.

2-Understand the dynamic interaction between patients and healthcare provider and factors affects patient compliance/ clinical decision making.

3.Learn measuring differences in health across individuals in the population.

4- Identify the impact of communication styles and values on communication within the work place.

5- Demonstrate understanding the Saudi pharmacy law and legal systems of medication development and its impact on pharmacy practice.

6. Identify the principles of pharmaceutical marketing management mixed with the Pharmaceutical human resources management and clinical leadership.

7. Understand the concept of pharmacoepidemiology and research methodologies within it.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

Design a new educational material of pharmaceutical computer software's [Pharmacy simulator] to advance research of pharmaceutical services outcome.

Using of e-learning tutorial to encourage students to think critically in the course academic activities

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description: This core course will be delivered during the third semester. The course content is further divided in to two components: social pharmacy and pharmacy administration. Social pharmacy will encompass social and behavioral aspects of drug use, an important area of pharmacy practice research. Principles of pharmacy marketing, management and leadership will be covered in pharmacy administration. Detailed list of the topics is given below. Both traditional lecture based and problem based teaching methods will be employed to enhance students' learning experience. The students are required to submit two written assignments and present a topic in journal club.

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
1. Social aspects of drug use	1	3
2. Models of health behavior	2	3
3. Measuring health and health inequalities	3	3
4. Communication with patient and other members of healthcare team	4	3
5. Pharmacoepidemiology	5	3
6. Pharmaceutical marketing	6	3
7. Finance and human resource management in pharmacy operations	7	3
8. Leadership in pharmacy	8	3
9. Ethics in pharmacy practice	9	3

2. Course components (total contact and credit hours per semester):							
		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	18	9			9	36
	Actual						
Credit	Planned	2	0.5			0.5	3
	Actual						

3. Individual study/learning hours expected for students per week.	4
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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and

align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Describe the aims of epidemiology and Pharmaceoepidemiology	1 -Lectures 2 -Class discussion 3- clinical sessions	Activity and Interaction
1.2	Learn principles for Pharmaceutical management	Lectures	Activity and Interaction
1.3	Discuss the function of pharmaceutical marketing process	Lectures	Activity and Interaction
1.4	Learn the impact of diversity, communication styles and values on communication within the work place.	Lectures	Activity and Interaction
1.5	Identify the concept and scope of the Saudi pharmacy law and legal systems of medication development, production and marketing.	Lectures	Activity and Interaction
2.0	Cognitive Skills		
2.1	Recognize the difference between case report, case control studies	Lectures	Activity and Interaction
2.2	State how to communicate effectively with physicians, nurses, other pharmacists and patients	Lectures	Activity and Interaction
2.3	Recognize how to apply the pharmacy Law and Ethics in pharmacy practice.	Lectures	Activity and Interaction
3.0	Interpersonal Skills & Responsibility		
3.1	learn how to Plan for a market research	Problem based learning	Oral presentation lecture about subject related to the course presented by students and discussed with them after distributing the students into groups to encourage the team work.
3.2	Learn how to create effective new feature for the pharmaceutical product	Problem based learning	Oral presentation lecture about subject related to the course presented by students and discussed with them after distributing the students into groups to encourage the team work.

3.3	Perform effective communication and positive relation with others and be able to work as an effective member in a team.	Problem based learning	Oral presentation lecture about subject related to the course presented by students and discussed with them after distributing the students into groups to encourage the team work.
4.0	Communication, Information Technology, Numerical		
4.1	learn how to Plan for a health and pharmaceutical managed care services	Tutorial	Students are asked to prepare and present a lecture about subject related to the course using a power point program
4.2	learn how to plan effective patterns of health marketing techniques	Tutorial	Students are asked to prepare and present a lecture about subject related to the course using a power point program
4.3	Use technology in analyzing data and information.	Tutorial	Students are asked to prepare and present a lecture about subject related to the course using a power point program
5.0	Psychomotor(if any)		
5.1	Apply the principles of study designs in measuring the beneficial/harmful effect of drug therapy	Assignments (assays and oral presentation)	Final Exam will be used to assess the student's knowledge in this field
5.2	Demonstrate the process of Pharmacist recruitment	Assignments (assays and oral presentation)	Written exams will be used to assess the student's knowledge in this field
5.3	Use techniques and strategies in order to enhance communication with patients, Physicians, nurses, and co-workers.		
5.4	Solve problems related to laws and ethics.	Assignments (assays and oral presentation)	Written exams will be used to assess the student's knowledge in this field

5. Assessment Task Schedule for Students During the Semester			
	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Midterm exam (MCQ only):	TBA	15%
2	Assignment I (pharmacy management)	TBA	15%
3	Assignment II (Pharmacoepidemiology)	TBA	15%
4	Journal club	TBA	10%
5	Final Exam (MCQ and Essay)	TBA	45%
6			
7			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

1. Office hours for student consultation: Monday 10 – 1 / Tuesday 10 – 1.

2. Online consultation for student via what's app and the official faculty webpage at the university website .

Course coordinator and lecturers of the course are happy to answer all students' quires during or after the lectures, and they can be reached by personal meeting, phones or e-mails.

-Student representatives usually have the mobile number of the course coordinator to contact him in case of any queries.

-All students have the e-mail of the course organizer.

- Office hours for the course organizer and lecturer of the course are given to students, this is at least 4 hours per week divided into two days

E Learning Resources

1. List Required Textbooks

- Communication Skills in Pharmacy Practice: A Practical Guide for Students and Practitioners by Robert S. Beardsley and Carole L. Kimberlin, 6th edition
- Pharmacy Management, Leadership, Marketing and Finance by Marie A. Chisholm-Burns and Allison M. Vaillancourt
- Social and Behavioral Aspects of Pharmaceutical Care by Albert I. Wertheimer, 2nd edition
- Social Lives of Medicines (Cambridge Studies in Medical Anthropology) by Susan Reynolds Whyte and Sjaak van der Geest
- Sociology and Pharmacy Practice by Paul Bissell and Janine Morgall Traulsen
- Financial Analysis in Pharmacy Practice (Pharmacy Business Administration) by Keith N. Herist and Brent L. Rollins

2. List Essential References Materials (Journals, Reports, etc.)
3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) Clinical Pharmacy classrooms are available in the faculty of Pharmacy which is enough to accommodate at least 50 students.
2. Technology resources (AV, data show, Smart Board, software, etc.)
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching University used to measure students feed back about the course every few years. In addition, a special form was designed by the department and are given at the end of term to measure the students feed back about the quality of teaching and course contents. Information in this feed back form are treated confidentially and students are not asked to write there names in it.
2. Other Strategies for Evaluation of Teaching by the Instructor or the Department Any complain from students about quality of teaching and/ or course contents are always treated confidentially and considered and discussed well to find the solutions for it. In addition, as mentioned previously the department form for students feed back are also seen and analysed to improve any shortage in any aspects or matters.
3. Procedures for Teaching Development Department teaching staff are always encourage to update there knowledge in the field of work by attending national and international conferences and self developments courses held inside or outside the university campus and a record of that is kept for each academic staff.

4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)

All students exam are designed to be corrected and marked by computer program to minimize the human errors. In addition, a member from an institution other from the university is asked annually to join in teaching and assessing the students.

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.

Name of Course Instructor: _____

Signature: _____ Date Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____

Course Title: Specialty Clerkship I

Course Code: 185703-9

Course Title: Specialty Clerkship II

Course Code: 185704-6

“Students will choose to repeat one of the Previous four Clerkship rotations to solidify their knowledge and based on their selected research project and area of interest.”

Kingdom of Saudi Arabia
Ministry of Education
Umm Al-Qura University
Deanship of Graduate Studies



المملكة العربية السعودية
وزارة التعليم
جامعة أم القرى
عمادة الدراسات العليا

COURSE SPECIFICATIONS

Form

Course Title: Research project and dissertation

Course Code: 1805703-9

Date: 7/11/2018

Institution: Umm Al Qura University.....

College: Pharmacy **Department:** Clinical Pharmacy

A. Course Identification and General Information

1. Course title and code: Research project and dissertation - 1805703-9

2. Credit hours: 18

3. Program(s) in which the course is offered: Master of Clinical Pharmacy

(If general elective available in many programs indicate this rather than list programs)

4. Name of faculty member responsible for the course: Dr/Mohamed Medhat-

5. Level/year at which this course is offered: Postgraduate students

6. Pre-requisites for this course (if any): B-Pharm or PharmD

7. Co-requisites for this course (if any):

8. Location if not on main campus: Main Campus

9. Mode of Instruction (mark all that apply):

- | | | | |
|-------------------------------------|-------------------------------------|-------------|----------------------------------|
| a. Traditional classroom | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="70%"/> |
| b. Blended (traditional and online) | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="20%"/> |
| c. E-learning | <input checked="" type="checkbox"/> | percentage? | <input type="text" value="10%"/> |
| d. Correspondence | <input type="checkbox"/> | percentage? | <input type="text"/> |
| f. Other | <input type="checkbox"/> | percentage? | <input type="text"/> |

Comments:

B Objectives

1. The main objective of this course

1. Produce a thesis that displays competence in understanding and carrying out research in the field of clinical pharmaceutical science
2. Devise a research topic to investigate a particular clinical pharmaceutical science research area
3. Identify key research questions that are not too general and ambitious
4. Select and review relevant theory and literature
5. design a study and choose appropriate methods to investigate the specific research questions
6. Select appropriate modes of analysis
7. Consider ethical issues involved in research
8. Implement, critically appraise or apply research in a particular field
9. Prepare a comprehensive written report that is professionally presented and contains all the required components of a master's thesis, including a bibliography

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content as a result of new research in the field)

- Design a new educational material of computer software's [SPSS, Stata, Minitab 18]
- Using of e-learning tutorial, workshops and seminars to encourage students improving the writing skills

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description: During the final semester, the students will complete their research project and write dissertation. Additional workshops and seminars will be arranged during this semester specially to improve writing skills. The students will be required to submit a dissertation consisting of at least 20,000 words (Maximum 25,000 excluding references and appendix).

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
10. How to design a protocol	1	2
11. Research methodology	2	2
12. Ethical approval and patient consent	3	2

13. Data collection procedures	4	2
14. Data analysis plan	5	2
15. Poster preparation and presentation	6	2
16. literature searches and evaluation	7	2
17. Writing report methodology	8	2
18. How to Avoid plagiarism	9	2

2. Course components (total contact and credit hours per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	18	9			9	36
	Actual						
Credit	Planned	2	0.5			0.5	3
	Actual						

3. Individual study/learning hours expected for students per week.

4

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategies

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Cod e #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Demonstrate an awareness of the need for research	1 -Lectures 2 -Class discussion	Activity and Interaction
1.2	Demonstrate an understanding of the ethical issues in respect of research studies	Lectures	Activity and Interaction

1.3	Identify appropriate research methodologies	Lectures	Activity and Interaction
1.5	Identify the concept and scope of the clinical research	Lectures	Activity and Interaction
2.0	Cognitive Skills		
2.1	Formulate a research question	Lectures	Activity and Interaction
2.2	State how to collect data and design the data collection tools	Lectures	Activity and Interaction
3.0	Interpersonal Skills & Responsibility		
3.1	Present the research findings, both in writing and orally.	Problem based learning	Oral presentation
3.2	Explain the procedures involved in obtaining ethics approval and patient consent.	Problem based learning	Oral presentation
3.3	Present pertinent in-depth discussion of research findings and draw relevant conclusion	1 -Lectures 2 -Class discussion	Activity and Interaction
4.0	Communication, Information Technology, Numerical		
4.1	Carry out a research project in pharmacy practice as a member of small team of researchers	Tutorial	Students are asked to prepare and present a simulation of research project and play a role of a researcher of a small team
4.2	Use technology in analyzing data and information.	1 -Lectures 2 -Class discussion	Activity and Interaction
4.3	Recognize how to apply the suitable statistical method and software in the clinical research	1 -Lectures 2 -Class discussion	Activity and Interaction
5.0	Psychomotor(if any)		
5.1	Apply the principles of different types of study designs and methodology	Assignments (assays and oral presentation)	Research presentation and dissertation
5.4	Solve problems related to the data collection and the results	Assignments (assays and oral presentation)	Research presentation and dissertation

5. Assessment Task Schedule for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Research presentation	TBA	20%
2	Dissertation and oral viva	TBA	80%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)

1. Office hours for student consultation: Sunday 10 -12 / Tuesday 10 –12.

2. Online consultation for student via what's app and the official faculty webpage at the university website .

Research supervisor are happy to answer all students' quires during or after the lectures, and they can be reached by personal meeting, phones or e-mails.

-Student representatives usually have the mobile number of the course coordinator to contact him in case of any queries.

-All students have the e-mail of the supervisor.

- Office hours for the supervisor is are given to students, this is at least 4 hours per week divided into two days

E Learning Resources

1. List Required Textbooks

1. Pharmacy Practice Research Methods. Edited by Zaheer-Ud-Din Babar
2. Clinical Biostatistics and Epidemiology Made Ridiculously Simple. 1st Edition by Ann Weaver and Stephen Goldberg
3. Introduction to Statistical Methods for Clinical Trials (Chapman & Hall/CRC Texts in Statistical Science). 1st Edition by Thomas D. Cook and David L DeMets
4. Medical Statistics Made Easy, 3rd Edition by Michael Harris and Jacquelyn Taylor
5. Methods in Observational Epidemiology. 2nd Edition by Jennifer L. Kelsey, Alice S. Whittemore, Alfred S. Evans, W. Douglas Thompson
6. Qualitative Inquiry and Research Design: Choosing Among Five Approaches by John W. Creswell

2. List Essential References Materials (Journals, Reports, etc.)

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) Clinical Pharmacy classrooms are available in the faculty of Pharmacy which is enough to accommodate at least 50 students.
2. Technology resources (AV, data show, Smart Board, software, etc.)
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching University used to measure students' feedback about the course every few years. In addition, a special form was designed by the department and are given at the end of term to measure the student's feedback about the quality of teaching and course contents. Information in this feedback form are treated confidentially and students are not asked to write their names in it.
2. Other Strategies for Evaluation of Teaching by the Instructor or the Department Any complain from students about quality of teaching and/ or course contents are always treated confidentially and considered and discussed well to find the solutions for it. In addition, as mentioned previously the department form for students' feedback are also seen and analyzed to improve any shortage in any aspects or matters.
3. Procedures for Teaching Development Department teaching staff are always encouraging to update their knowledge in the field of work by attending national and international conferences and self-developments courses held inside or outside the university campus and a record of that is kept for each academic staff.
4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution) All student's exam are designed to be corrected and marked by computer program to minimize the human errors. In addition, a member from an institution other from the university is asked annually to join in teaching and assessing the students.
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.