



Course Specifications

Course Title:	Pharmacology and drug calculation
Course Code:	5603324-3
Program:	Bachelor degree in Nursing program
Department:	Science & Nursing Research Department.
College:	Collage of Nursing
Institution:	Umm Al Qura University

Table of Contents

A. Course Identification	3
6. Mode of Instruction (mark all that apply)	3
B. Course Objectives and Learning Outcomes.....	3
1. Course Description	3
2. Course Main Objective	3
3. Course Learning Outcomes	3
C. Course Content	4
D. Teaching and Assessment	خطأ! الإشارة المرجعية غير معروفة. 5
1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods.....	خطأ! الإشارة المرجعية غير معروفة. 5
2. Assessment Tasks for Students	5
E. Student Academic Counseling and Support	6
F. Learning Resources and Facilities	6
1. Learning Resources	6
2. Facilities Required	6
G. Course Quality Evaluation	7
H. Specification Approval Data	7

A. Course Identification

1. Credit hours: 3 hours			
2. Course type			
a.	University <input type="checkbox"/>	College <input checked="" type="checkbox"/>	Department <input type="checkbox"/>
b.	Required <input checked="" type="checkbox"/>	Elective <input type="checkbox"/>	Others <input type="checkbox"/>
3. Level/year at which this course is offered: 3rd year / 1st Semester			
4. Pre-requisites for this course (if any):			
English			
5. Co-requisites for this course (if any):			
None			

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	36	70%
2	Blended	12	20%
3	E-learning		
4	Distance learning	6	10%
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	30
2	Laboratory/Studio	20
3	Tutorial	
4	Others (specify)	10
	Total	60

B. Course Objectives and Learning Outcomes

1. Course Description

The course of pharmacology and drug calculation is designed to prepare the students with an understanding of the introduction to pharmacology and the main principles of pharmacology.

2. Course Main Objective

At the end of the course the students will be able to differentiate drug classes and the nursing implication in each drug manipulate drug calculations for nurses.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Identify the common principles of handling drugs	1.1

CLOs		Aligned PLOs
1.2	List the drug characteristics	1.2
1.3	Mention the different drug classes and the nursing implication in each class	1.5
1.4	Write the drug administration errors and Prevention	1.6
2	Skills :	
2.1	Explain the commonly used drugs with regard to groups, forms, uses, doses, routes of administration, mechanism of action and side effects	2.4. 2.5. 2.6
2.2	Demonstrate effective communication with others	2.17
2.3	Calculate the prescribed dose of medication	2.24 & 3.8, 3.9
2.4	Operate decimals, percentages, unit conversions to calculate the prescribed medication correctly	2.24 & 3.8. 3.9
3	Values:	
3.1	Illustrate effective communication and positive relation with each other.	2.12
3.2	Use the ethical and professional standards during practice	2.15

C. Course Content

No	List of Topics	Contact Hours
	Theoretical Part	
1	• Introduction to pharmacology in nursing	2
2	• Pharmacological Principles. Types of medication actions and therapies. Medication dose responses. • And monitoring.	2
	• Toxicology, Life span considerations, Legal, ethical and cultural considerations. Medication errors: preventing and responding.	4
3	• Chemotherapeutic agents, antibiotics, anticancer, antiviral, antifungal	4
4	• Introduction to pharmacology in nursing	2
5	• Drugs affecting the autonomic nervous system and nursing implication	4
6	• Drugs affecting the central nervous system and nursing implication	4
7	• Drugs affecting the cardiovascular system and nursing implication. Antihypertensive, antiarrhythmic, antianginal, anticoagulants	4
8	• Gastrointestinal drugs and respiratory drugs	2
9	• Antidiabetics	2
	Clinical part	
10	• Calculation of the prescribed dose of medication.	15
11	• Operate decimals, percentages, unit conversions to calculate the prescribed medication correctly	15
Total		60

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Identify the common principles of handling drugs	lectures (L), small group discussion	Written Exam (Midterm and Final)
1.2	List the drug characteristics	lectures (L), small group discussion	Written Exam (Midterm and Final)
1.3	Mention the different drug classes and the nursing implication in each class	lectures (L), small group discussion	Written Exam (Midterm and Final)
1.4	Write the drug administration errors and Prevention	lectures (L), small group discussion	Written Exam (Midterm and Final), Assignment
2.0	Skills		
2.1	Explain the commonly used drugs with regard to groups, forms, uses, doses, routes of administration, mechanism of action and side effects	lectures (L), small group discussion	Written Exam (Midterm and Final)
2.2	Demonstrate effective communication with others	Solving of some clinical cases Practical course	-Midterm exams -Practical exam -Semester activities
2.3	Calculate the prescribed dose of medication	Clinical cases analysis Practical course in the skill lap	Semester clinical activities Practical exams (Midterm + final exam)
2.4	Operate decimals, percentages, unit conversions to calculate the prescribed medication correctly	Solving of some clinical cases Practical course	-Midterm exams -Practical exam -Semester activities
3.0	Values		
3.1	Illustrate technology in communication skills with others.	Assignment (small group work)	Observation
3.2	Appraise communication effectively with others.	Assignment (small group work)	Observation

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Semester Midterm	8	20%
2	Semester lab midterm	9	10%
3	Semester activities	All weeks	10%

#	Assessment task*	Week Due	Percentage of Total Assessment Score
4	Final practical exam	14	20%
5	Final written exam	16, 17	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

2hrs / office hours

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	<p><u>1. Bertram Katzung</u> (Author), <u>Anthony Trevor</u> (Author) Publisher: McGraw-Hill Medical; 13 edition (December 23, 2014) Language: English ISBN13: 97 0071825054 . ISBN 10: 0071825053</p> <p>2. Whalen, K, (2019) Lippincott Illustrated Reviews, Pharmacology 6th edition (Lippincott Illustrated Reviews Series) Paperback –</p> <p><u>3. Karen Whalen PharmD BCPS</u> (Author) Edition: Sixth, North American. Edition Language: English. ISBN-13: 978-1451191776 ISBN-10: 1451191774</p>
Essential References Materials	<ul style="list-style-type: none"> b. Journal of pharmacology http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1469-7580
Electronic Materials	PubMed, Google-scholar
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms, laboratories
Technology Resources (AV, data show, Smart Board, software, etc.)	AV, data show, Smart Board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Anatomy lab.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Student Evaluation Course Survey.	Students	Checklist format
Annual Evaluation by Course Coordinator.	Course coordinator & teaching staff	Revising content of the course & methods of teaching.

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	