



Course Specifications

Course Title:	Microbiology for Nursing
Course Code:	56023405-3
Program:	Nursing
Department:	Microbiology Department
College:	Collage of Medicine
Institution:	Umm Al-Qura University

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A. Course Identification

1. Credit hours: 3			
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: 3 rd year – 2 nd semester			
4. Pre-requisites for this course (if any):			
5. Co-requisites for this course (if any):			

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom		
2	Blended	5	100%
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	2* 14 weeks = 28 hrs
2	Laboratory/Studio	2* 13 weeks = 26 hrs
3	Tutorial	
4	Others (specify)	
	Total	54 hrs/ semester

B. Course Objectives and Learning Outcomes

1. Course Description

This course prepares to the nursing students to studying of medical microbiology field, which is a scientific discipline of understanding various microorganisms and its significance effect in infectious disease including an etiology, control and management.

2. Course Main Objective

This is an introductory course in microbiology designed for nursing students with no previous microbiology background. Three major areas are included, microorganisms (bacteria, fungi, viruses), Parasites, the immune mechanisms of the host and the interaction of the host and microorganisms in the in the disease process and in homeostasis. This course includes a laboratory series which is based on the lecture content. Major emphasis is placed on fundamentals of infections and resistance, infectious diseases and infection control, disinfections, chemotherapy, biological products and epidemiology.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Introduced to Microbiology and Know the scope of Microorganisms on our daily life.	1.1
1.2	Understand the basic microbial nutritional, physical and chemical requirements and the significance of controlling the microbial growth.	1.3
1.3	Know the microbial structure, understand their role in the pathogenicity and understand host-pathogen interaction.	1.3
1.4	Know some of the major worldwide complications of Hospital associated infections (HAI) and its epidemiology in relation to nursing practice.	1.2
1.5	Introduced to some essential antimicrobial agents and their mechanism of action and the development of antimicrobial resistance	1.1
1...		
2	Skills :	
2.1	Know how to apply sterile and aseptic techniques.	2.1, 2.2, 2.4
2.2	Able to differentiate between some basic and special microbial media for isolating and transporting the pathogen	2.3
2.3	Able to use of Microscope to observe and differentiate between microorganisms	2.5
2.4	Carry out of advanced practical skills, such as clinical specimens' collection of pathogenic microorganisms.	2.5
3	Values:	
3.1	Demonstrate a good teamwork practice during lab sessions	3.1, 3.4

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to microbiology, Microbial taxonomy and structure.	L 02
2	Microbial growth and Basic Chemical and physical requirements	L 02
	Safety rule in Microbiology laboratory and Instrumentations	P 02
3	Sterilization and disinfection (Control of Microbial growth).	L 02
	Sterilizations and disinfectant	P 02
4	Microbial Morphology	L02
	Isolation of pure culture, Simple staining	P 02
5	Microbial normal flora.	L 02
	Simple staining, wet preparation and Microscopy	P 02
6	Microbial Pathogenesis.	L 02

	Special stain (AFP) & Microscopy	P 02
7	Proper specimen collection and transportation. Specimen collections and transportations Media	L 02 P 02
8	Hospital acquired and Community acquired infection. Specimen collections and transportations Media	L 02 P 02
9	Biofilms Antimicrobial susceptibility testing, MIC, MBC	L 02 P 02
10	Rout of transmission, Outbreak, endemic and pandemic microbes. Antimicrobial susceptibility testing, MIC, MBC	L 02 P 02
11	Personal protections and isolations. Revision	L 02 P 02
12	Therapeutic and prevention modalities of microbial infections. Revision	L 02 P 02
13	Vaccination Revision	L 02 P 02
14	Medical Waste & Revision Revision	L 02 P 02
15	Final Exam	
Total		

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	Introduced to Microbiology and Know the scope of Microorganisms on our daily life.	-Lectures in class rooms in order to introduce the basic information	- Written exam. -Assignment evaluation - Lab reports

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
		-Small group discussion to determine the natural relationships between bacteria and human diseases.	
1.2	Understand the basic microbial nutritional, physical and chemical requirements and the significance of controlling the microbial growth.	-Lectures in class rooms in order to introduce the basic information -Small group discussion to determine the natural relationships between bacteria and human diseases.	- Written exam. -Assignment evaluation - Lab reports
1.3	Know the microbial structure, understand their role in the pathogenicity and understand host-pathogen interaction.	-Lectures in class rooms in order to introduce the basic information -Small group discussion to determine the natural relationships between bacteria and human diseases.	- Written exam. -Assignment evaluation - Lab reports
1.4	Know some of the major worldwide complications of Hospital associated infections (HAI) and its epidemiology in relation to nursing practice.	-Lectures in class rooms in order to introduce the basic information -Small group discussion to determine the natural relationships between bacteria and human diseases.	- Written exam. -Assignment evaluation - Lab reports
1.5	Introduced to some essential antimicrobial agents and their mechanism of action and the development of antimicrobial resistance	-Lectures in class rooms in order to introduce the basic information -Small group discussion to determine the natural relationships between bacteria and human diseases.	- Written exam. -Assignment evaluation - Lab reports
2.0	Skills		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.1	Know how to apply sterile and aseptic techniques.	-Tutorial & practical to investigate the main aspects of bacterial strains.	- Practical exam. -Assignment evaluation - Lab reports
2.2	Able to differentiate between some basic and special microbial media for isolating and transporting the pathogen	-Tutorial & practical to investigate the main aspects of bacterial strains.	- Practical exam. -Assignment evaluation - Lab reports
2.3	Able to use of Microscope to observe and differentiate between microorganisms	-Tutorial & practical to investigate the main aspects of bacterial strains.	- Practical exam. -Assignment evaluation - Lab reports
2.4	Carry out of advanced practical skills, such as clinical specimens' collection of pathogenic microorganisms.	-Tutorial & practical to investigate the main aspects of bacterial strains.	- Practical exam. -Assignment evaluation - Lab reports
3.0	Values		
3.1	Encourage teamwork practice during lab sessions	-working in groups during lab experiments	-Continuous assessment during lab session

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Mid-term exam	7 th Week	20 %
2	Activity (Quizzes online)	14 th Week	10 %
3	Continuous assessment in Microbiology lab.	13 th Week	10%
4	Final practical exam.	15 th Week	20%
5	Final theoretical exam.	16 th Week	40%
	Total		100%

*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 :

Consultations: 2hrs/ week and academic advice: 2hrs/ week.

Dr. Hamdi M. A. Ibrahim

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	<ul style="list-style-type: none">• Barer, M. R., & Irving, W. L. (2018). <i>Medical Microbiology E-Book: A Guide to Microbial Infections</i> (19th Edition). Elsevier Health Sciences.• Tille, P. (2015). <i>Bailey & Scott's diagnostic microbiology-E-Book</i> (14th Edition). Elsevier Health Sciences.• Gracia, L. (2016). <i>Diagnostic Medical Parasitology</i> (6th Edition). Washington, D.C. : ASM Press,
Essential References Materials	<ul style="list-style-type: none">• Practical Handbook of Microbiology; By Goldman E, 2015, 3rd edition
Electronic Materials	Saudi Digital Library (SDL) https://uqu.edu.sa/lib/917
Other Learning Materials	Blackboard software

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom, laboratory
Technology Resources (AV, data show, Smart Board, software, etc.)	data show, Smart Board, PC or laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Lab equipment like (electronic pipettes, beakers flask ...etc.)

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students	Direct
Quality of learning resources	Program Leaders	Indirect

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	Fifth department committee meeting
Reference No.	393070614425
Date	1442/06/07