



# **Course Specifications**

Institution:College of dentistry.Academic Department:Basic Science department.Programme:Dentistry Programme.Course:General Microbiology and Immunology.Course Coordinator :Mohammad Rashad AlganzoryProgramme Coordinator:..../....H

This form compatible with NCAAA 2013 Edition



### **A. Course Identification and General Information**

1 - Course title : General Microbiol and Immunology.	ogy Course Code: MAC 211.			
2. Credit hours : (3)				
3 - Program(s) in which the course	e is offered: Dentistry.			
4 – Course Language :	English			
5 - Name of faculty member respo	onsible for the Mohammad Rashad			
course:				
6 - Level/year at which this course	e is offered : First Half of Second Year			
<ul> <li>Biochemical structure and functions of D</li> <li>The basic physiology of different body or</li> <li>The basic morphology and functions of the relationship.</li> </ul>	NA. gans to expect the disturbances after microbial infection. in immune system to understand the host-parasite			
<ul><li>8 - Co-requisites for this course (if any) :</li><li>9 - Location if not on main campus : (On main campus)</li></ul>				
10 - Mode of Instruction (mark all	that apply)			
A - Traditional classroom	✓ What percentage? <b>100 %</b>			
B - Blended (traditional and online)	What percentage?%			
D - e-learning	What percentage?%			
E - Correspondence	What percentage? %			
F - Other	What percentage?%			
Comments :				
) Objectives:				
What is the main purpose for this By the end of the course the dental student	course?			

- 1. Have a basic understanding of the major pathogenic organisms, related disease-syndromes and their modes of spread with particular reference to dentistry.
- 2. Have a basic understanding of the host-parasite relationship and the immune system.
- 3. Have a basic understanding of the oral microbial ecology and pathogenesis of dental caries and periodontal disease.
- 4. Be aware of the major clinical and biological factors to be taken into consideration for the appropriate use of anti-microbial therapy.
- 5. Be familiarized with some of the laboratory procedures including specimen collection and handling, requesting appropriate tests and interpretation of laboratory reports.





Briefly describe any plans for developing and improving the course that are being implemented :

- Summary of the teaching material (e.g. in PowerPoint) to be inserted in the department's website
- Increase the use of IT based reference material
- Course content is following the most recent research in the field

# C. Course Description

# 1. Topics to be covered

List of Topics	No. of Weeks	Contact Hours		
1 <sup>st</sup> Semester				
Introduction.				
Bacterial Structure & Function				
Bacterial Physiology & Genetics				
Host-parasite Relationship I				
Host-parasite Relationship II				
Antibiotics & Chemotherapy II				
Immunology I (Natural Immunity,Complement and Phagocytosis				
Immunology II - Acquired Immunity				
Immunology III (Immunoglobulins, Antigens, Antibodies Reactions)				
Immunology IV – ImmunodeficiencyHypersensitivity & Autoimmunity				
Immunology V - Cell mediated immunity				
General mycology				
General Virology				

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

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	3		1			4
Credit	1		1			2



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

(This should be an average: for the semester not a specific requirement in each week)

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

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	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods		
1.0	Knowledge				
1.1	Describe the principles underlying the basic taxonomy of viruses, bacteria, fungi, and parasites to; include structural variety, physiological and genetic aspects	Lecture.	Exam.		
1.2	Discuss the basis for antiviral, antibacterial, antifungal, and antiparasitic therapy and the potential for resistance.	Lecture.	Exam.		
1.3	Describe the prototypical human pathogens and how they gain entry, colonize, and infect the human host.	Lecture.	Exam.		
1.4	Define mechanisms on part of the host that cause immunopathology, including relevant inflammatory processes that are operational in periodontal, endodontic and acute oral facial infections.	Lecture.	Exam.		
1.5	Describe means for the prevention of infection	Lecture.	Exam.		
1.6	Discuss contemporary topics in microbiology, including disinfection and emerging infectious diseases.	Lecture	Exam		
1.7	concepts, practices, and requirements related to infection control, quality control of dental unit water lines, and instruments sterilization.		Exam.		
2.0	Cognitive Skills				
2.1	Define a clinical problem	Lecture.	Exam.		
2.2	Analyse a given clinical data	Lecture.	Exam.		
2.3	Identify the causative agent (microorganism) and its mode of transmission.	Lecture.	Exam.		
2.4	Differentiate specimens that taken from patients and	Lecture.	Exam.		





	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
2.5	Describe the morphological features of bacteria microscopically and on culture.	Lecture.	Exam.
2.6	Describe different laboratory diagnosis used	Lecture.	Exam.
2.7	Discuss treatment, prevention and control of microbial diseases	Lecture.	Exam.
3.0	Interpersonal Skills & Responsibility		
3.1	Acquire the skills of respecting teachers and colleagues	During lecture.	Recognition.
3.2	Acquire the skills of good listening	During lecture.	Recognition.
3.3	Acquire the skill of self learning	During lecture.	Recognition.
3.4	Build up personal responsibility	During lecture.	Recognition.
3.5	Acquire the skills of team-work	During lecture.	Recognition.
4.0	Communication, Information Technology, Numer	ical	
4.1	Ability to work in a team to conduct specific microbiology experiments	During lecture.	Exam.
4.2	Ability to use computers and internet for research purposes.	During lecture.	Exam.
4.3	Presenting and discussing the results obtained.	During lecture	Exam.
4.4	Encouraging students to submit duties, activities and writing reports	During lecture.	Exam.
4.5	Evaluating the laboratory written reports resulted from microbiology experiments.	During lecture.	Exam.
4.5	Evaluating activities	During lecture.	Exam.
5.0	Psychomotor		
5.1	Identify the bacteria by microscopy, colonial morphology on cultures and confirmatory tests.	During lecture.	Recognition.





	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
5.2	Describe the susceptiblity of the microorganisms to antimicrobials.	During lecture.	Recognition.
5.3	Describe basic microbiological instruments	During lecture.	Recognition.

# **5.** Schedule of Assessment Tasks for Students during the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	midterm exam	6	20%
2	Quiz	3	5%
3	Research	4	5%
4	Presentation	13	5%
5	Practical exam	14	25%
6	Final Exam	14	40%
7	Total		100%





# **D. Student Academic Counseling and Support**

Students are supported academic guidance during office hours and provide them with guidance and advice, as well as scientific knowledge of students' problems and how to solve it.

# **E. Learning Resources**

#### 1. List Required Textbooks :

McCracken and Cawson, Clinical and Oral Microbiology, McGraw Hill Sleigh and Timbury, Notes on Medical Bacteriology, Churchill Livingstone Timbury, Notes on Medical Virology, Churchill Livingstone Kimball Introduction to Immunology, Macmillan

#### 2. List Essential References Materials :

Essential Microbiology for Dentistry – L.P. Samaranayake Latest Edition, Livingstone New York, London

Microbiology and Immunology notebook. Prepared by mr.alganzory, lecturer of microbiology faculty of dentistry majmaah university

#### 3. List Recommended Textbooks and Reference Material :

Recommended Books and Reference Material (Journals, Reports, etc) (Attach List) -Microbiology by Harvey, Champe and Fisher. Second Edition (2007). Publisher: Lippincott Williams & Wilkins -Medical Microbiology by Murray and others. Last Edition. Publisher: Mosby - Medical Microbiology by Jawetz, Melnick & Adelbergs.

4. List Electronic Materials :

• www.pubmed.com.

#### Mohammad Rashad site in the Majmaah university site

(mu.edu.sa) http://faculty.mu.edu.sa/m.rashad

#### 5. Other learning material :

- Perform medical analysis using patient cases from hospitals.
- Prepare culture media tests.
- Discuss with students about different bacterial diseases .

#### **F. Facilities Required**

#### 1. Accommodation

- A classroom with a seating capacity of 30 students, equipped with a projector and smart board.
- A well-equipped laboratory with advanced Microbiology equipment.





#### 2. Computing resources

- Computer classroom.
- Internet connection.

#### 3. Other resources

• General knowledge.

#### **G** Course Evaluation and Improvement Processes

**1** Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

- Make questionnaires.
- Perform theoretical examination.
- Make seminars.

**2** Other Strategies for Evaluation of Teaching by the Program/Department Instructor :

- Make meetings with groups of students to discuss the contents of the course, method of teaching to evaluate the course and the instructor.
- **3** Processes for Improvement of Teaching :
  - Make meeting every week in the department to update the status of each student and the difficulties felt by the colleague will be resolved accordingly.
  - The power point presentation of each lecture is distributed to all the staff members of the department for evaluation and suggestions for improvement.
  - Teachers will be subjected to go for up gradation of knowledge by attending the relevant conferences and will be encouraged to carry on a self-improvement.
- 4. Processes for Verifying Standards of Student Achievement
  - Make 1<sup>st</sup> midterm, quiz and final examinations.
  - Make practical examination.
  - Perform a questionnaire to evaluate the student's experience.

**5** Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement :

• Make meeting every week in the department to update the status of each student and the difficulties felt by the colleague will be resolved accordingly.

• The power point presentation of each lecture is distributed to all the staff members of the department for evaluation and suggestions





#### for improvement.

• Teachers will be subjected to go for up gradation of knowledge by attending the relevant conferences and will be encouraged to carry on a self-improvement.

### Course Specification Approved Department Official Meeting No ( ..... ) Date .... / ..... *H*

#### **Course's Coordinator**

#### **Department Head**

Name :	Mohammad Rashad Alganzory	Name :	Ass. Prof. Fekrey Shata
<i>Signature : Date :</i>	/ H	<i>Signature : Date :</i>	/ / H

