



Course Specifications

Course Title:	Oral Microbiology
Course Code:	MAC 411
Program:	Bachelor of Dentistry [BDS]
Department:	Basic Science department.
College:	College of Dentistry
Institution:	Majmaah University

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A. Course Identification

1. Credit hours: 2
2. Course type
a. University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: 4th Year / 1st Semester
4. Pre-requisites for this course (if any): MAC211
5. Co-requisites for this course (if any):NA

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	15	50%
2	Blended	NA	NA
3	E-learning	NA	NA
4	Correspondence	NA	NA
5	Other - Laboratory	30	50%

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	Lecture	15
2	Laboratory/Studio	30
3	Tutorial	-
4	Others (specify)	-
	Total	45
Other Learning Hours*		
1	Study	5
2	Assignments	3
3	Library	2
4	Projects/Research Essays/Theses	3
5	Others (specify)	-
	Total	58

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

This subject introduces micro-organisms, their characteristics and how they affect humans. Cultivation, enumeration, identification and control of micro-organisms are emphasized. Mechanisms by which medically important micro-organisms because disease are introduced. The concepts of infection, inflammation and immunology are introduced in this subject. Infection control procedures are discussed in theory and applied in laboratory classes. An understanding of normal oral flora is developed in the subject. Hypotheses of oral disease aetiology, including specific, non-specific and ecological plaque hypotheses, are critically evaluated with respect to current peer-reviewed research findings. Practical skills developed in laboratory classes are used to solve dentistry-related case-based problems in a way that encourages independent, critical and reflective thinking.

2. Course Main Objective

1. Have a broad overview of the current research, and methods used in studying problems in dental caries and periodontal disease.
2. Have an understanding of the broad range of infection diseases affecting the oral cavity.
3. Have an understanding of the clinical and biological factors to be considered in the appropriate use of antimicrobial drugs.
4. Be aware of the contemporary principles and practices of laboratory diagnostic techniques and interpretation of laboratory reports.
5. Have an understanding of hospital acquired infections and infections in the compromised host.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge:	
K 2.8.1	Recall the microbiology/pathogenesis associated with dental caries and periodontal diseases.	K2.8
K 3.30.1	Recall the systemic implications of oral microbiology o include bacteremia and endocarditis infections in the compromised host.	K3.30
2	Skills :	
S 2.8.1	Summarized a given clinical data and interpreted.	S2.8
3	Competence:	
C 2.18.1	Demonstrate leadership skills and coordinate with fellow colleagues to submit a group task or assignment	C2.18

C. Course Content

No	List of Topics	Contact Hours
1	1st Semester	1
2	Introduction.	1
3	Microbial Ecology of the Oral Cavity	1
4	Microbiology of Dental Caries	1
5	Microbiology of Periodontal Diseases	2
6	Immunological Disorders and Oral Diseases	1
7	Oral and Systemic Infections with Oral Manifestations I,II,III	2
8	Dental Bacteraemia	1
9	Dental Bacteraemia and Infective Endocarditis	2
10	Infection in Compromised Host	1
11	Nosocomial Infection and Cross-infection in Dental clinic	1
12	Antimicrobial chemotherapy in dentistry	1

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	Knowledge		
K2.1	Discuss the microbiology/pathogenesis associated with dental caries and periodontal diseases.	Lectures, Practical lab	Recall/Factual Questions in Written exams , Oral evaluations, OSPE, Assignments
K3.1	Explain systemic implications of oral microbiology o include bacteremia and endocarditis infections in the compromised host.	Lectures, Practical lab	Recall/Factual Questions in Written exams , Oral evaluations, OSPE, Assignments
2	Skills :		
S2.1	Define a clinical problem and analyses a given clinical data	Lectures, Practical lab	Conceptual, Analytical or Evaluative questions in Written exams , Oral evaluations, OSPE, Assignments, weekly assessments
3	Competence:		
C2.1	Demonstrate leadership skills and coordinate with fellow colleagues to submit a group task or assignment	Students will be divided into small groups and tasks will be assigned to the group	The group task / Assignment will be supervised closely and the work done by each student will be evaluated using rubrics

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quiz 1 + 2	Week 10 & Week 19	05%
2	Midyear exam – Theory	Week 14	25%
3	Behavior / Professionalism	During the course	05%
4	Assignment	During the course	10%
5	Weekly Assessment	During the course	15%
6	Final Practical Exam	Week 14	15%
7	Final Theory Exam	Week 16	25%

*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 :
 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.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	<ul style="list-style-type: none"> ✓ Human Anatomy & Physiology, Elaine N. Marieb and KatjaHoehn Pearson, Benjamin Cummings, 8th edition, 2010. ✓
Essential References Materials	<ul style="list-style-type: none"> ✓ Essentials of Human Anatomy & Physiology, Elaine N. Marieb, Pearson, Benjamin Cummings, 10th edition, 2009.
Electronic Materials	None
Other Learning Materials	None

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	<ul style="list-style-type: none"> ✓ Lecture room suitable for 30 students ✓ Fully equipped lab for practical sessions
Technology Resources (AV, data show, Smart Board, software, etc.)	<ul style="list-style-type: none"> ✓ Projector ✓ Smart board with all the accessories ✓ Internet

Item	Resources
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	<ul style="list-style-type: none"> ✓ Microscopes ✓ Microscopic slides ✓ Soft tissues specimens and casts of oral structures

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students	<ul style="list-style-type: none"> ✓ Course Evaluation Survey ✓ Quality of Exam Survey
	Faculty	<ul style="list-style-type: none"> ✓ CLO Mapping with teaching & assessment. ✓ Course Blueprinting ✓ Grade Analysis ✓ Psychometric Analysis
	Peers	Grade Verification
Extent of achievement of course learning outcomes	Faculty member / Quality assurance committee	<ul style="list-style-type: none"> ✓ Direct assessment outcome analysis ✓ Course report preparation
Quality of learning resources, etc	Students / Faculty	<ul style="list-style-type: none"> ✓ Academic advising survey ✓ Student experience survey

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	Department Council
Reference No.	*****
Date	*****