



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Applied Dental Sciences
2nd Semester
Course Syllabus

Course Information	
Course Title	Oral Microbiology
Course Code	ADS 220
Prerequisites	Med 218
Lecture time&place	
Credit hours	2 credit hours (Theory)
Instructor	
Office Location	
Office Phone #	
Office Hours	
E-mail	
Teaching Assistant(s)	
Course Description	
This course emphasizes the microbiological and immunological factors impacting not only the oral environment but the entire human body. Emphasis is placed on aspects of microbiology and immunology clinical application which will include some laboratory experiences	

Textbook	
Title	Essential Microbiology for Dentistry.
Author(s)	Samaranayake, L.
Publisher	Churchill Livingstone
Year	2006
Edition	3 rd . Edition
Other references	Comprehensive Periodontics for the Dental Hygienist. Weinberg, MA et al, 2001 Prentice Hall, Inc. 1st Edition. Oral Microbiology and Immunology, 2nd Edition Newman and Nisengard, W.B. Saunders, 1994. Reprinted from Oral Microbiology and Immunology, 2nd Edition Newman and Nisengard, Chapters, 5, 6, 25, 26 1994, with permission from Elsevier.

Assessment		
Assessment	Expected Due Date	Percentage
First Exam		
Second Exam		
Final Exam		

Course Objectives	Percentage
1. Describe microbial structure and function 2. Discuss bacterial structure and function 3. Identify viral structure and function	20%
4. Understand the role of pathogens causing disease 5. Develop a working vocabulary of the basic groups of microorganisms 6. Explain basic principles of immunology	25%
7. Apply all clinical applications of immunology 8. Identify the major role species of micro-organisms that constitute the normal indigenous flora of the respiratory passages and oral cavity and categorize according to location.	15%
9. List microbial diseases of specific organ systems 10. Describe the ecology of the oral environment, including all types of flora.	20%
11. Describe the stages of plaque formation and relate changes in microbiota to colonization factors 12. Identify and explain the use of antimicrobial, antifungal and antibiotic therapy in the suppression or destruction of microorganisms.	10%
13. Explain the contamination of Dental Unit Water Lines (DUWL). 14. Identify the microbiological tests used in accordance with North Carolina OSHA guidelines.	10%

Teaching & Learning Methods
<ul style="list-style-type: none"> Lectures, reading and group discussion. <p>Teaching duration:</p> <ul style="list-style-type: none"> Duration: 16 weeks Lectures: 15 lectures, 1 hour 40 minutes each, including 2 hours first & second examination Laboratory: 2 labs (each 2 hours)

Learning Outcomes: Upon successful completion of this course, students will be able to
1-6: Develop a working vocabulary of the basic groups of microorganisms
7-8: Discuss requirements for microbial growth and principles of antimicrobial agents
9-10: Identify the microbiological make-up of the following: plaque, calculus, saliva, caries, periodontal disease, and the inflammatory response
11-12: Demonstrate a working knowledge of infection control in the dental office and the practice of dental hygiene.
13: Demonstrate a working knowledge of OSHA guidelines as they apply to sterilization, infection control and prevention of cross contamination

Useful Resources
JUST Library

Additional Notes
<ul style="list-style-type: none"> ▪ Students are expected to attend more than 90% of lectures. ▪ Each student is expected to sit in his numbered seat ▪ Empty seat will be counted as absent ▪ All absences will be entered electronically into the University site ▪ If absence is more than 10% student will be banned from the course after electronic notification from the university through student e-mail.

		Course Content		
Week	Date	Title of the Lecture	References	Lecturer
1		Course Introduction, Microbiology of the Oral Cavity		
2		Microbiology of Oral and Nasal Respiratory Passages		
3		Potential for Disease Transmission in the Dental Environment, Disinfection and Sterilization		
4		Response of Bacteria and Viral Invasion		
5		Microbiology of Dental Plaque, Plaque control mechanisms and Caries, Immunology		
6		1st Exam		
7		Microbiology and Host Responses in Periodontal Disease		
8		Microbiology and Host Responses in Periodontal Disease (continued)		
9		Review Laboratory Procedures		
10		Lab Session Number One(lab description)		
11		2nd Exam		
12		Microbiology and Antibiotic Therapy for Orofacial Infections		
13		Lab Session Number Two (lab description)		
14		Microbiology of Dental Caries		
15		Diseases of oral cavity		
16		Final Exam		