Faculty of Oral & Dental Medicine

General Microbiology

Information :

Course Code :	SGS 392	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Faculty of Oral & Dental Medicine

Instructor Information :

Title	Name	Office hours
Associate Professor	SALWA IBRAHIM IBRAHIM YOUSSEF	2
Associate Professor	SALWA IBRAHIM IBRAHIM YOUSSEF	2
Lecturer	Dina Magdy Abdel Salam Abdel Aziz	
Lecturer	Eman Ali Mohamed torad	
Assistant Lecturer	Ayat Issa Ahmed Issa	
Assistant Lecturer	Dina Abd El Hameid Hamdi Abd El Hameid	

Area Of Study :

-To provide the basic knowledge about microorganisms including bacteria, viruses and fungi especially those causing diseases relevant to dentistry.
-To enable the students to understand the infection control measures that should be applied in clinic & different methods of sterilization & disinfection in ordre to protect themselves and their patients from cross infection or contaminations .
- To provide the basic knowledge about the immunity
as well as the possible consequences of failure of immune system .
- To enable students to understand the different mechanisms of action of antimicrobial agents as well as their complications.
- To enable the students to have practical skills about the conventional & advanced methods used for diagnosis of bacterial diseases
- To provide the students with information about Oral bacterial flora & the oral defense mechanisms .

Description :

the course aim for understanding general virology, Herpes, Hepatitis and HIV. Microbiology of caries, periodontal diseases, periapical ulcers, and mouth ulcers.Studying staph, stepto, neisseria, diphtheria and anaerobic candida in laboratory diagnosis.

Course outcomes :

a.Knowledge and Understanding: :

1 -	Basic structure ,classification ,growth requirements and genetics of bacteria as well as antimicrobial agents.
2 -	Bacterial , viral and fungal diseases of importance for dental students.
3 -	The overall interaction of different cells of the immune system ,the soluble mediators of immunity as well as the consequences of failure or exaggeration of immune response

b.Intellectual Skills: :	
1 -	The proper choice of proper antimicrobial agents in order to avoid their possible side effect & prevent emergence of drug resistance.
2 -	The proper choice of suitable disinfectant for disinfection of clinical contact surfaces & housekeeping surfaces.
3 -	The proper choice of method of sterilization for different instruments or articles
c.Professional and Practical Skills: :	
1 -	Technique of Hand washing &barrier precautions (e.g., heavy-duty utility gloves, masks, protective eyewear) when cleaning and disinfecting environmental surfaces.
2 -	knowledge about different parts of microscope & how to adjust it for better identification of organism
3 -	Differentiation between different types of bacteria under the microscope according to their morphology ,staining character & arrangement
4 -	General skills about selective media used for isolation of organisms causing diseases relevant to dentistry.
d.General and Transferable Skills: :	
1 -	Self confidence, communication skills
2 -	Pleasure of learning
3 -	Thinking & comprehension of subject are the best methods for learning

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
First semester contents	4		
Prokaryotes VS eukaryotes - Bacterial classification - Bacterial cell structure	4		Infection control measures in dentistry
Bacterial genetics -Host- parasites relationship -Bacterial growth curve	4		Physical methods of Sterilization
Antimicrobial agents	4		Microscopy & bacterial staining
Disinfection	4		Conventional bacterial identification methods
Components of the immune system	4		Immunological diagnosis of Infectious diseases
Tissues & cells involved in the immune response	4		Molecular diagnosis of Infectious diseases
Antigen and immunogenicity -Immunoprophylaxis	4		Antibiotic susceptibility testing
Cell- mediated immunity Cytokines	4		Tutorials
Humoral immunity -Immunoglobulins	4		Tutorials

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Hypersensitivity reactions	4		Tutorials
Tumor immunology	4		Tutorials
Oral Defense mechanisms	4		Tutorials
Second semester contents			
Oral microbial flora	4		
Staphylococci	4		
Streptococci & Pneumococci	4		
Neisseria Corynebacterium Diphtheria	4		
Mycobacteria	4		
Spirochaetes	4		
Anaerobic bacteria	4		
Fungal infections	4		
Basic Virology	4		
Hepatitis viruses	4		
Oncogenic viruses	4		
Human Immunodeficiency virus	4		
Herpes viruses	4		

Teaching And Learning Methodologies :

Lectures
Lab
Tutorials (class discussion)

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Practical Examination	15.00	16	assess Practical, intellectual, general skills.
Semester Work	20.00		
1st Mid-Term Examination	15.00	5	assess Knowledge and understanding
2nd Mid-Term Examination	15.00	11	assess Knowledge and understanding
Final Examination	25.00	15	
Oral Examination	10.00	16	to assess Knowledge and understandingé as well as the self confidence of students

Course Notes :

-Hand out
-Computer-aided learning materials " CD"

Recommended books :

Free reading

Periodicals :

Trends in Immunology
Online Microbiology & Immunology data base