



University of Management & Technology
School of Science
Department of Life Sciences

MB 311: Clinical bacteriology and virology

Lecture Schedule	Monday & Wednesday 11:00-12:15 & 09:30-10:45	Semester	Spring 2021
Pre-requisite	F.Sc. /A-level Biology	Credit Hours	4
Instructor(s)	Ms Anam Amir	Contact	anam.amir@umt.edu.pk
Office	3S-37	Office Hours	See office window
Course Description	Course consists of instruction in the history, practical application, and pathogenesis of clinical microbiology, including collection, setup, identification, susceptibility testing, and reporting procedures. The laboratory exercises will endeavor to provide the student with the most comprehensive experiences possible, but will rely mainly on the commonly measured differential characteristics of select bacterial groups.		
Expected Outcomes/ Objectives	<ol style="list-style-type: none"> 1. Apply principles of safety, quality assurance and quality control in Clinical Microbiology 2. Evaluate specimen acceptability. 3. Describe morphology and physiology of microbes. 4. Identify and classify microorganisms. 5. Demonstrate sterile technique. 6. Perform and interpret antimicrobial susceptibility testing. 7. Select additional procedures based on preliminary results 8. Correlate test results with patient condition(s). 		
Text book & Reference book(s)	Medical microbiology and immunology fourth edition		
Grading Policy	<ul style="list-style-type: none"> • Quizzes & Class participation(s): 15% • Assignment 10% • Presentation 10% • Midterm: 25-30% <p>Final Exam: 40-50%</p>		

Course Schedule

Week	Lecture #	TOPICS	Chapter no.
1	1	Introduction to microbes	2
	2	Pathogenesis of microbes	2
2	3	Basic Bacteriology I	2
	4	Basic Bacteriology II	2
3	5	Anaerobic Bacteria I	2
	6	Anaerobic Bacteria II	2
4	7	Staphylococcus specie	2
	8	Staphylococcus specie treatment diagnosis	2
5	9	Streptococcus specie pathogenicity	2
	10	Streptococcus specie diagnosis and treatment	2
6	11	Pneumonia specie	2
	12	Pneumonia diagnosis treatment	2
7	13	Gram negative bacteria I	2
	14	Gram negative bacteria II	2
8	15	Zoonotic organisms pathogenesis I	2
	16	Zoonotic organisms pathogenesis II	2
9	1	<u>Midterm Exam</u>	2
	18	Mycobacteria	2
10	19	Mycobacteria diagnosis and treatment	2
	20	Actinomycetes	2
11	21	Mycoplasma	2
	22	Spirochetes	2
12	23	Chlamydiae	2
	24	Virology introduction	2
13	25	Structure,	3
	26	Replication	3
14	27	Gene therapy with virology	3
	28	Pathogenicity	3
15	29	Host defense	3
	30	Antiviral drugs and vaccination	3