



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Medical Laboratory Sciences
Course Syllabus

Course Information	
Course Title	Medical Microbiology Practical (1 credit hour)
Course Code	LM 223
Prerequisites	LM 221 (or co-requisite)
Course Website	http://www.just.edu.jo
Course Coordinator	Ms. Yasmeen Al-Shboul
Office Location	M1, L-2
Office Phone #	Ex. 23705
Office Hours	
E-mail	yashboul@just.edu.jo
Lab Supervisor	Master students
Course Description	
<p>This is a laboratory practical course introducing, among several topics, the principles of microbial/bacterial identification based on morphological, biochemical, growth pattern, and other properties. Students will experience performing bacterial isolation and culture, staining, biochemical testing, antimicrobial susceptibility testing, etc. Sessions involve discussions and demonstrations, followed by laboratory applications.</p>	

Textbook		
Title	Microbiology, A laboratory manual	
Author(s)	Cappuccino, Sherman	
Publisher	Pearson	
Year	2005	
Edition	7 th edition	
Book Website	www.aw-bc.com	
Assessment		
Assessment	Expected Due Date	Percentage
Midterm Exam	Week 7	40%
Evaluations, reports & quizzes	Week 3-12	20%
Final Exam	Week 15	40%

Course Content		
Week	Topics	Chapter in Textbook (handouts)
1	Course Introduction, General Microbiology laboratory & Safety Rules	Handouts
2	Microscopy & Examination of Stained cells	Handouts
3	Bacterial Staining, Direct & Indirect Simple Staining Techniques (Capsule Staining)	Handouts
4	Gram Staining	Handouts
5, 6	Acid Fast & Spore Staining	Handouts
7	Mid-term exam	Handouts
8	Nutritional Requirements, Media Types & Techniques for The Cultivation of Microorganisms	Handouts
9	Ubiquity of Microorganisms	Handouts
10	Physical & Chemical agents for The control of Microbial Growth. The Kirby-Bauer Antibiotic Sensitivity Test.	Handouts
11	Biochemical activities of Microorganisms 1	Handouts
11, 12	Biochemical activities of Microorganisms 2	Handouts
13	Revision	Handouts
14	Final Exam	
15, 16	University Final Exams	

Teaching & Learning Methods
<ul style="list-style-type: none"> • Power point lectures • Laboratory experiments <p>Teaching duration:</p> <ul style="list-style-type: none"> • 16 weeks; 3 hours/ week – lab practice

Reference(s) Handouts	
1. Handouts & e-learning	
2. Text book	
3. Additional reading-JUST library	

Useful Resources
Internet-links to Basic & Medical Microbiology lab.
Jordan University of Science and Technology Library

Many of the lab exercises in this manual are adaptations from existing lab manuals. Hence, diagrams within this manual are diagrams that have been redrawn with modifications from existing lab manuals or textbooks. The exercises form a core set of skills and a body of knowledge that many university-level microbiology courses include, thus many exercises can also be found in nearly any university-level lab manual. Each image has been modified from one of the sources listed below. Willey, Joanne, Linda Sherwood, Chris Woolverton. Prescott's Microbiology, 8th edition. New York: McGraw Hill... James G. Cappuccino and Natalie Sherman. Microbiology: A Laboratory Manual, 7th edition. Benjamin Cummings, 2004. Print.