



Jordan University of Science and Technology
Faculty of Science & Arts
Applied Biological Sciences Department

BIO232 General Microbiology (Lab)

First Semester 2017-2018

Course Catalog

1 Credit Hours. Microbiology lab. is interested in developing laboratory skills in microbiology. It includes isolation, purification, cultivation, smear preparation, staining of the bacteria, performing tests to classify and identify the major groups of bacteria, and studying microbial growth control methods. Upon completion of this lab course, students will acquire basic microbiology techniques and principles. The students will get first-hand experience that will coincide with what is taught in the lecture portion of the class

Text Book

Title	Microbiology: A laboratory Manual
Author(s)	James Cappuccino and Natalia Sherman
Edition	10th Edition
Short Name	Ref #1
Other Information	2014

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	Handouts	TA	1st Edition	

Instructor

Name	Dr. Sereen Bataineh
Office Location	-
Office Hours	Sun : 09:30 - 11:30 Mon : 10:00 - 11:00 Tue : 09:00 - 11:30 Wed : 12:00 - 12:30
Email	smbataineh3@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun : 11:30 - 14:30 Room: LAB 5 (PH2 L0)

Teaching Assistant
Mr. Bayen Mahawreh(), Miss ENAS ALSATARI()

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Regulation and management of microbiology lab.	Pages 1-6 From Ref #1, From Ref #2
Week 2	The microscope and Microscopic examination of living bacterial Preparation:	Pages 35-44 & 45-50 From Ref #1
Week 3	Bacterial staining	Pages 37-41 & 55-74 From Ref #1
Week 4	Bacterial staining: Gram staining	Pages 75-80 From Ref #1
Week 5	Bacterial staining: Acid fast staining	pages 81-95 From Ref #1
Week 6	Culture transfer techniques	Pages 13-18, 139-147 & 355-360 From Ref #1
Week 7	Techniques for isolation of pure cultures	Pages 19-28 & 29-34 From Ref #1, From Ref #2
Week 8	Physical factors	Pages 117-126, 289-312 & 319-326 From Ref #1
Week 9	Cultivation of Microorganisms	Pages 97-116 From Ref #1
Week 10	Biochemical activities of Microorganisms I	Pages 159-194 From Ref #1
Week 11	Biochemical activities of Microorganisms II	Pages 195-228 From Ref #1
Week 12	Cultivation and Enumeration of Bacteriophages	Pages 275-286 From Ref #1

Mapping of Course Objectives to Program Student Outcomes¹	Assessment method
Demonstrate the ability to work with standard lab safety protocols and procedures and how to handle biologically hazardous material, needles and sharps [1B]	

Correctly perform microbiologic lab skills and display a habit of good lab practices, which extends to relevant situations in the student?s homes. [1B]	
Demonstrate appropriate laboratory skills and techniques related to the staining of bacteria and estimating the number of microorganisms in a sample [1B]	
Demonstrate appropriate laboratory skills to isolate bacteria and testing antimicrobial activity of agents [1B]	
Explain principles of physical and chemical methods used in the control of microorganisms to prevent and control infectious diseases [1B]	
Demonstrate appropriate laboratory skills related to the identification of bacteria using biochemical testing and metabolism [1B]	
Learn how to make careful observations, collect and analyze data, and draw appropriate conclusions [1D]	

Relationship to Program Student Outcomes (Out of 100%)					
A	B	C	D	E	F
	85		15		

Policy	
Class attendance	Your class attendance is mandatory. Absences in excess of 20% of the total lecture hours will result in your being dropped from the course with a failing grade
Makeup Exams	Make-up exam appeals should be filed within one week of the missed exam
Cell Phones	Cell phones are prohibited during examinations and must be turned off during lecture. No incoming or outgoing calls or text messages are allowed
Cell Phones	Cell phones are completely prohibited during examinations according to the university regulations i.e. you are not allowed to bring your phone into the exam hall
Cheating	Unethical conduct, including cheating during examinations, will result in punishment by the university administration

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