



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

BIO231 General Microbiology

First Semester 2017-2018

Course Catalog

3 Credit Hours. Introduction to the microbial world. Diversity of prokaryotes, their development, structure and function. Prokaryotic metabolism, nutrition, growth and control. Major classes of bacteria as well as Viruses and fungi will be thoroughly discussed. Host-pathogen relationship and antimicrobial chemotherapy will also be addressed.

Text Book

Title	Microbiology
Author(s)	Prescott, L., Harely , J. P. and Klein
Edition	8th Edition
Short Name	1
Other Information	

Course References

Instructor

Name	Dr. Ziad Jaradat
Office Location	PH1L1
Office Hours	Sun : 10:30 - 12:30 Tue : 10:30 - 12:30 Wed : 11:30 - 12:30 Thu : 13:30 - 14:30
Email	jaradatz@just.edu.jo

Class Schedule & Room

Section 2:
Lecture Time: Sun, Tue, Thu : 12:30 - 13:30
Room: NB72

Tentative List of Topics Covered		
Weeks	Topic	References
Weeks 1, 2	Bacterial cell structure	Chapter 3 From 1
Weeks 3, 4	Microbial growth	Chapter 7 From 1
Week 5	Viruses and other a cellular infectious agents	Chapter 6 From 1
Week 6	Control of Microorganisms in the Environment	Chapter 8 From 1
Week 7	Antimicrobial chemotherapy	Chapter 9 From 1
Week 8	Microbial Taxonomy	Chapter 19 From 1
Weeks 9, 10	Bacteria; The Proteobacteria	Chapter 22 From 1
Week 11	Bacteria; the low G+C gram positives	Chapter 23 From 1
Week 12	Bacteria: the high G+C gram positives	Chapter 24 From 1
Week 13	The Funji (Eumycota)	Chapter 26 From 1
Weeks 14, 15	Pathogenicity and infection	Chapter 35 From 1

Mapping of Course Objectives to Program Student Outcomes ¹	Assessment method
Describe the surface structure as well as the internal structure of bacterial cells and their functions [1A]	
Describe the nutritional and physical requirements for bacterial growth and the effect of environment on bacteria and explain the dynamics of the growth of a bacterial population and how this growth can be measured [1A]	
Describe the principals involved in killing bacteria, and be able to decide on the use of physical and chemical methods including antimicrobial chemotherapeutic agents used to control microbial growth in industrial and medical settings [3A, 1C]	
Express the fundamental concepts associated with viruses including a detailed understanding of viral classification and replication [1A]	
Comprehend the modern scheme of bacterial classification using molecular microbiology methods and be familiar with major groups of bacteria and fungi and their importance in medical, environmental and food industry [1A, 3C]	
Understand ways in which bacterial pathogens can be transmitted to humans, and the factors that influence transmission of pathogens and the occurrence of infectious diseases. This includes the concepts of virulence and virulence factors, opportunistic pathogens, and predisposing factors to disease [1A]	

Relationship to Program Student Outcomes (Out of 100%)					
A	B	C	D	E	F
72.50		27.50			

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 completely prohibited during examinations according to the university regulations i.e. you are not allowed to bring your phone into the exam hall
cell phones	Cell phones must be turned off during lectures. No incoming or outgoing calls or text messages are allowe
cheating	Unethical conduct, including cheating during examinations, will result in punishment by the university administration

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