



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

BIO103 General Biology

First Semester 2017-2018

Course Catalog

3 Credit Hours. General Biology (B103) is devoted to the study of the cellular and molecular basis of life. Students are expected to develop an understanding of certain core concepts of biology including cell structure and physiology, information flow, metabolism, cellular reproduction, Mendelian genetics, mammalian systems & protective mechanisms.

Text Book

Title	Biology
Author(s)	Campell NA, Urry LA, Cain ML, Wasserman SA, Minorsky PV and Reece JB
Edition	10th Edition
Short Name	Ref. # 1
Other Information	Eleventh Ed. of the book is available and required

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 : 09:30 - 10:30
Room: SCIENCE HALL1

Tentative List of Topics Covered		
Weeks	Topic	References
Weeks 1, 2	Biological Macromolecules and Lipids	pages 114-139 From Ref. # 1
Weeks 3, 4	Cell Structure and Function	Pages 163-190 From Ref. # 1
Week 5	Cell Membranes	Pages 196-212 From Ref. # 1
Week 6	Cell Respiration	Pages 236-254 From Ref. # 1
Week 7	Mitosis	Pages 284-302 From Ref. # 1
Week 8	Sexual Life Cycles and Meiosis	Pages 304-318 From Ref. # 1
Weeks 9, 10	Mendelian Genetics	Pages 319-333 From Ref. # 1
Weeks 11, 12	Nucleic Acids and Inheritance	Pages 364-379 From Ref. # 1
Week 13	Animal Digestive Systems [Mammalian]	Pages 979-985; 988-992 From Ref. # 1
Week 14	Animal Transport Systems [Mammalian]	Pages 1000-1013; 1016-1018; 1019-1020; 1021-1023 From Ref. # 1
Weeks 15, 16	Animal Defenses Against Infection	pages 1098-1116 From Ref. # 1

Mapping of Course Objectives to Program Student Outcomes¹	Assessment method
Describe the structure, characteristics and functions of carbohydrates, lipids, proteins and nucleic acids. [1A]	first exam
Become familiar with basic unit of life, how prokaryotes and eukaryotes are different and identify organelles and structures in animal and plant cells and how they differ from each other. [1A]	first exam
Analyze and explain the processes associated with and the role of the cell membrane in the processes of osmosis, diffusion and transport. [1A]	Second exam
Explain how metabolic pathways are performed in plants and animals in the form of cellular respiration. [1A]	
Describe the molecular bases of cell cycle and how mitosis and meiosis are differentiated in addition to their goals and outcomes. [1A]	
Define and apply the principles of Mendelian genetics and its modern extensions to the unity and diversity of life [1A]	
Understand the molecular and chromosomal basis of heredity [1A]	
Describe the anatomical structure and physiological functions of tissues and organ systems of the human body [1A]	

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

Evaluation	
Assessment Tool	Weight
first exam	30%
Second exam	30%

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 allowed
Cheating	Unethical conduct, including cheating during examinations, will result in punishment by the university administration

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