



Jordan University of Science and Technology
Faculty of Science & Arts
Biotechnology & Genetic Engineering Department

BT103 General Biology

First Semester 2020-2021

Course Catalog

3 Credit Hours. General Biology (BT 103) 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	11th Edition
Short Name	Ref # 1
Other Information	

Instructor

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Class Schedule & Room	
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Section 1:

Lecture Time: Sun, Tue : 08:30 - 10:00

Room: منصة الكترونية

Section 2:

Lecture Time: Sun, Tue : 10:00 - 11:30

Room: منصة الكترونية

Section 3:

Lecture Time: Sun, Tue : 11:30 - 13:00

Room: منصة الكترونية

Section 5:

Lecture Time: Mon, Wed : 08:30 - 10:00

Room: منصة الكترونية

Section 6:

Lecture Time: Mon, Wed : 10:00 - 11:30

Room: منصة الكترونية

Section 7:

Lecture Time: Mon, Wed : 11:30 - 13:00

Room: منصة الكترونية

Section 8:

Lecture Time: Mon, Wed : 13:00 - 14:30

Room: منصة الكترونية

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Biological Macromolecules and Lipids	Chapter 5 (114-139) From Ref # 1
Weeks 3, 4	Cell Structure and Function	Chapter 7 (163-190) From Ref # 1
Week 5	Cell Membranes	Chapter 8 (196-212) From Ref # 1
Week 6	Cell Respiration	Chapter 10 (236-254) From Ref # 1
Week 7	Mitosis	Chapter 12 (284-302) From Ref # 1
Week 8	Sexual Life Cycles and Meiosis	Chapter 13 (13 (304-318) From Ref # 1
Week 9	Mendelian Genetics	Chapter 14 (319-333) From Ref # 1
Week 10	Nucleic Acids and Inheritance	Chapter 16 (364-379) From Ref # 1
Week 11	Animal Defenses Against Infection	Chapter 47 (1098-1116) From Ref # 1
Weeks 12, 13	Animal Transport Systems [Mammal]	Chapter 43 (1000-1013) (1016-1018) (1019-1020) (1021-1023) From Ref # 1
Week 14	Animal Digestive Systems [Mammalian]	Chapter 42 (979-985) (988-992) From Ref # 1

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Describe the structure, characteristics and functions of carbohydrates, lipids, proteins and nucleic acids. [1A]	10%	
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]	10%	
Analyze and explain the processes associated with and the role of the cell membrane in the processes of osmosis, diffusion and transport. [1A]	10%	
Explain how metabolic pathways are performed in plants and animals in the form of cellular respiration. [1A]	10%	
Describe the molecular bases of cell cycle and how mitosis and meiosis are differentiated in addition to their goals and outcomes. [1A]	20%	
Define and apply the principles of Mendelian genetics and its modern extensions to the unity and diversity of life [1A]	15%	
Understand the molecular and chromosomal basis of heredity [1A]	10%	
Describe the anatomical structure and physiological functions of tissues and organ systems of the human body [1A]	15%	

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

Evaluation	
Assessment Tool	Weight
First Exam	25%
Second Exam	25%
Final Exam	50%

Policy	
Policy 1	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.
Policy 2	Make-up exam appeals should be filed within one week of the missed exam.
Policy 3	Cell phones are prohibited during examinations and must be turned off during lecture. No incoming or outgoing calls or text messages are allowed.
Policy 4	Unethical conduct, including cheating during examinations, will result in punishment by the university administration.

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