



The Hashemite University
Faculty of Science
Course Syllabus

First Semester
2020/2021

Department of Biological Sciences and Biotechnology

Course Title: General Biology for Medical Science **Course Number:** 180104105
Pre-requisite: - **Credit Hours:** 3
Designation: Required
Instructor:
Shorouq Jaradat
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Course Description (Catalog): This course covers the study of the basic principles of biology, starting with biological macromolecules, cell structure, cell membranes, cell respiration and cell division as well as basic information about DNA structure & replication, human body and function.

Text Book: Biology, A Global Approach, by Neil A. Campbell, Lisa A. Urry, Michael L. Cain, 11th ed.

References: any modern textbook in biology

❖ **Major Topics Covered:**

| Chapter | Topics | No. of Weeks | Contact Hours* |
|--------------|--------------------------------------|--------------|----------------|
| 5 | Biological Macromolecules and Lipids | 3 | 9 |
| 7 | Cell Structure and Function | 2.5 | 7.5 |
| 8 | Cell Membranes | 2 | 6 |
| 10 | Cell Respiration | 2 | 6 |
| 12 | Mitosis | 1 | 3 |
| 13 | Meiosis | 1 | 3 |
| 40 | The Animal Body | 1.5 | 4.5 |
| 42 | Animal Digestive Systems | 2 | 6 |
| Total | | 15 | 45 |

*Contact Hours include lectures and exams.

❖ **Specific Outcomes of Instruction (Course Learning Outcomes):**

After completing the course units, the students will be able to:

| | Course Learning Outcomes (CLO) | (SO*) |
|--------------|--|--------------------|
| CLO1. | Understand the basic types of biological molecules | (a), (b) |
| CLO2. | Describe cell structure and function of cell organelles | (a) |
| CLO3. | Understand the basics of human cell respiration and energy production | (b) |
| CLO4. | Describe the stages of mitosis and meiosis | (a) |
| CLO5. | Understand the basic principles of human body hierarchical organization | (a), (b) |
| CLO6. | Understand the structure and functions of the human body systems, example: the digestive system. | (a), (b), (c), (k) |

*(SO) = Student Outcomes Addressed by the Course.

❖ **Student Outcomes (SO) Addressed by the Course:**

| # | Outcomes Description | Contribution |
|-----|---|--------------|
| | Applied and Natural Sciences Student Outcomes | |
| (a) | An ability to apply knowledge of mathematics, science, and applied sciences | M |
| (b) | An ability to design and conduct experiments, as well as to analyze and interpret data | L |
| (c) | An ability to formulate or design a system, process or program to meet desired needs | |
| (d) | An ability to function on multidisciplinary teams | H |
| (e) | An ability to identify and solve applied sciences problems | |
| (f) | An understanding of professional and ethical responsibility | H |
| (g) | An ability to communicate effectively | H |
| (h) | The broad education necessary to understand the impact of solutions in a global and societal context | H |
| (i) | A recognition of the need for, and an ability to engage in life-long learning | |
| (j) | A knowledge of contemporary issues | M |
| (k) | An ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice | M |

H=High, M= Medium, L=Low

Grading Plan:

| | | | |
|--------------|-----------|-----------------------|-------------------------|
| Quiz | 15 points | To be determined | To be determined |
| Midterm Exam | 35 points | 7 th week | Ch. 5, 7& 8 |
| Final Exam | 50 points | 16 th week | Ch. 10, 12, 13, 40 & 42 |

All exams are electronic and their dates will be announced at least one week ahead.

General Notes:(Attendance Policy):

Students are expected to attend every class and be on time in compliance with HU regulations. In case you find yourself in a situation that prevents you from attending a class or an exam, you have to inform your instructor. If you miss more than 6 classes for the (Sunday, Tuesday, and Thursday model) or 4 classes for the (Monday and Wednesday Model), you cannot pass the course. Makeup excuses will be accepted only for very limited justified cases, such as illness and emergencies. Changing your section without informing your instructor is not accepted at all.