



# Course Specification

## (Bachelor)

**Course Title:** General Biology

**Course Code:** PBIO 100

**Program:** Deanship of Common First Year

**Department:** Basic science Department

**College:** College of Nursing

**Institution:** Majmaah University (Hawtat Sudair)

**Version:** T5

**Last Revision Date:** 15 September 2024



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## A. General information about the course:

### 1. Course Identification

1. Credit hours: (.....)

#### 2. Course type

A.  University  College  Department  Track Others

B.  Required  Elective

3. Level/year at which this course is offered: ( Level 1/Year1)

#### 4. Course General Description:

Fundamental concepts of biochemistry, cell biology, genetics. Concepts include important organic molecules, cell structure and function, metabolism and enzyme activity, cellular respiration and photosynthesis, DNA structure, animal structure and function, Nutrition and digestion, Gas Exchange and Circulatory System, Reproduction and Embryonic Development. Intended for pre-medical, pre-dental and Applied Medical Sciences students

5. Pre-requirements for this course (if any):

NIL

6. Co-requisites for this course (if any):

NIL

#### 7. Course Main Objective(s):

- To provide a formation in basic biological principles.
- Develop an understanding of the interrelationships among living organisms.
- Explain how a cell can make a variety of large molecules from a small set of molecules.
- Define the macromolecules and explain their function.
- Describe the structure and function of the cell and compare between plants and animal cells.
- Explain how the molecules transport through the cell membrane.
- Describe how the cell can produce energy and the difference between photosynthesis and cellular respiration.
- Compare the structure of DNA and RNA.
- Define a tissue; describe the four main types of animal's tissue and their structure and function.
- Describe the four stages of food processing.



- Describe the main components of the human alimentary canal and the associated digestive glands.
- Describe the general structure and function of circulatory system
- Explain the main difference between asexual and sexual reproduction.
  - Describe the structure and function of human reproductive systems.

## 2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60 Hours	80%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> <li>• Traditional classroom</li> <li>• E-learning</li> </ul>	60 Hours 10 Hours	80% 15%
4	Distance learning	6 Hours	5%

## 3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	60 Hours
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	10 hours
5.	Others (specify)	6 hours
<b>Total</b>		

## B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	To describe and explain biological concepts	K1		





Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.2	To explain biological phenomena.	K2	Lectures, individual and group discussion, and project works	MCQs, long and short essays, Diagram
1.3	To use the proper method for thinking and solving simple and complicated problems	K3	Lectures, individual and group discussion, and project works	MCQs, long and short essays, Diagram
<b>2.0</b>	<b>Skills</b>			
2.1	Develop certain teamwork activities	S1	Lectures, individual and group discussion, and project works	MCQs, long and short essays, Diagram
...				
...				
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	Use internet for searching certain electronic journals regarding topics of the course	C1		
...				
...				

### C. Course Content

No	List of Topics	Contact Hours
1.	Exploring Life	4
2.	The Molecules of Cell	4
3.	Tour of the Cell	6
4.	Membrane Structure and Function	4
5.	Photosynthesis	4
6.	How cells harvest energy	4
7.	Molecular Biology of the Gene	3
8.	Animal structure and function	4
9.	Nutrition and digestion	4
10.	Gas Exchange and Circulation	4
11.	Reproduction and Embryonic Development	4





Total

45

## D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	1 <sup>st</sup> Mid-term exam	8 <sup>th</sup> week	20%
2.	Homework and assignment	11 <sup>th</sup> week	20%
3.	Assignment	13 <sup>th</sup> week	10%
4	Home works	Week 10	5%
5	Participated	16 <sup>th</sup> week	5%
6	Final exam	17 <sup>th</sup> week	40%

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

## E. Learning Resources and Facilities

### 1. References and Learning Resources

<b>Essential References</b>	Introduction to biology, first edition, Medhat M. Elbadry, Wael S.ElSayed, Abdellah H. Akhkha, Taher Y. Boutraa, MohammadK. Abhari and Rafat M.Afif.
<b>Supportive References</b>	-----
<b>Electronic Materials</b>	Internet, YouTube and journals website
<b>Other Learning Materials</b>	Electronic materials of Lecture notes and PowerPoints available in 'Black board' database

### 2. Required Facilities and equipment

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom
<b>Technology equipment</b> (projector, smart board, software)	Smart board and e podium available
<b>Other equipment</b> (depending on the nature of the specialty)	Library and seminar room Wi-Fi , internet connections

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		





Assessment Areas/Issues	Assessor	Assessment Methods
Achievement of CLOs	Faculty of the course	Direct assessment
Quality Learning resources	Faculty of the course, Course coordinator	Verifying the documents
Effectiveness of teaching and assessment	Program Leader	Verifying the document
Other		

**Assessors** (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

**Assessment Methods** (Direct, Indirect)

### G. Specification Approval

<b>COUNCIL /COMMITTEE</b>	
<b>REFERENCE NO.</b>	
<b>DATE</b>	

