



# Course Specification

(Bachelor)

Course Title: **Biology 1**

Course Code: **161-BIO-3**

Program: **Health track**

Department: **Preparatory Year**

College: **Science and Arts**

Institution: **Najran University**

Version: **1**

Last Revision Date: **4/1/2024**

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## A. General information about the course:

### 1. Course Identification

#### 1. Credit hours:

3hrs (2-Theoretical) (1-Practical)

#### 2. Course type

- A. ☐ University ☐ College ☐ Department ☒ Track ☐ Others
- B. ☐ Required ☐ Elective

#### 3. Level/year at which this course is offered: ( Preparatory Year)

#### 4. Course general Description:

This course includes the knowledge of cell structures and functions, human tissues, and organs, the functions of human body systems, anatomy, and physiological aspects of nursing practice. This course also includes the mechanisms that regulate bodily activities and maintain homeostasis of the human body. Finally, it includes a description of the body fluids and electrolytes

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

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

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

1. Determine the structure and function of human cell organelles.
2. Describe the principle concepts of molecular biology
3. Describe the differences between the different types of human tissues and their functions
4. Determine the fundamental information of the body systems and their functions, divisions and reproduction.
5. Determine the main principle of the anatomical and physiological aspects of nursing practice
6. Describe all types and functions of body fluids

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	%100
2	E-learning		
3	Hybrid		



No	Mode of Instruction	Contact Hours	Percentage
	<ul style="list-style-type: none"> <li>Traditional classroom</li> <li>E-learning</li> </ul>		
4	Distance learning		

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

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	15
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		45

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

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Determine the human cell structure and functions	K1	<ul style="list-style-type: none"> <li>Academic lectures.</li> <li>Scientific discussions.</li> <li>Use of the library.</li> <li>Practical Training</li> </ul>	<ul style="list-style-type: none"> <li>First semester exam</li> <li>The second semester exam</li> <li>The final test</li> </ul>
1.2	Recognize the differences between human body systems	K2	<ul style="list-style-type: none"> <li>Academic lectures.</li> <li>Scientific discussions.</li> <li>Use of the library.</li> <li>Practical Training</li> </ul>	<ul style="list-style-type: none"> <li>First semester exam</li> <li>The second semester exam</li> <li>The final test</li> </ul>
1.3	Determine the main principle of the anatomical and physiological aspects of nursing practice	K3	<ul style="list-style-type: none"> <li>Academic lectures.</li> <li>Scientific discussions.</li> <li>Use of the library.</li> <li>Practical Training</li> </ul>	<ul style="list-style-type: none"> <li>First semester exam</li> <li>The second semester exam</li> <li>The final test</li> </ul>
2.0	Skills			





Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
2.1	Describe the basic structures of body systems.	<b>S1</b>	- Academic lectures. - Scientific discussions. - Use of the library. Practical Training	- First semester exam - The second semester exam The final test
2.2	Explanation of ions distribution in the human body.	<b>S2</b>	- Academic lectures. - Scientific discussions. - Use of the library. Practical Training	- First semester exam - The second semester exam The final test
2.3	Describe all types and fonctions of body fluides	<b>S3</b>	- Discussion - solving problems - cooperative learning	- First semester exam - The second semester exam The final test
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	Shows the ability and confidence to lead and take the lead in work.	<b>V1</b>	Discussion	Research and participations
3.2	Excels in analyzing information and making decisions in unexpected contexts that require action, self-learning, and innovation.	<b>V2</b>	Teamwork	Research and participation
...				

### C. Course Content

No	List of Topics	Contact Hours
1.	Basic structure of the human body.	4
2.	Structures of cells, tissues, and organs.	6
3	The functions of systems of the human body.	4
4	Anatomy and physiology aspects of nursing practice	6
5	Mechanisms that regulate bodily activity and maintain homeostasis within an individual.	6
6	Fluids and electrolyte balance	4
<b>Total</b>		<b>30</b>

### D. Practical Course Contents





No	List of Topics	Contact Hours
1	Introduction, components of a microscope, types of microscopes	1
2	Cell components, structure of the cells	2
3	Molecular biology	2
4	Microscopic Slides of tissues	2
5	Models of human body systems ( cardiovascular system, digestive system, excretory system, respiratory system and muscular system)	4
6	Blood smears	4
Total		15

#### D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz or homework	continuous	5%
2.	Mid-term theory exam	6	20%
3.	Mid-term Practical exam	7	10%
4.	Notebook	continuous	5%
5	Final Practical exam	12	10%
6	Final theory exam	16	50%

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

#### E. Learning Resources and Facilities

##### 1. References and Learning Resources

Essential References	Human Biology - Definition, History and Major". Biology Dictionary. 2017-05-26. Retrieved 2019-03-22. General biology. Wikibooks.org 2013
Supportive References	Human Physiology 2013 Wikibooks.org
Electronic Materials	Elbadry, M. et al., (2013). Introduction to Biology 101. 1 <sup>st</sup> Ed., Pearson Benjamin Cummings (Compiled Version).
Other Learning Materials	

##### 2. Required Facilities and equipment





Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1- The lecture hall is suitable for (50 students).
<b>Technology equipment</b> (projector, smart board, software)	1- The projector 2- A laptop computer 3- Net connection point
<b>Other equipment</b> (depending on the nature of the specialty)	Laboratories equipped with projectors with a capacity of 30 students <ul style="list-style-type: none"> <li>• Glassware suitable for the number of students and experiments</li> <li>• Suitable places for storing chemicals</li> <li>• Appropriate quantities of usable chemicals</li> <li>• A cupboard containing first aid inside the laboratory</li> <li>• Laboratory Safety Guidelines Handbook.</li> </ul> A safe source of flame inside the laboratory

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students, program leaders, peer reviewer	Course Evaluation Questionnaires - Opinion polls through the university website - Learning Outcomes Assessment Poll
Effectiveness of Students assessment	Students, program leaders, peer reviewer	Course Evaluation Questionnaires - Opinion polls through the university website - Learning Outcomes Assessment Poll
Quality of learning resources	Students, faculty, program leaders, peer reviewer	Course Evaluation Questionnaires - Opinion polls through the university website - Learning Outcomes Assessment Poll
The extent to which CLOs have been achieved	Students, program leaders, peer reviewer	Course Evaluation Questionnaires - Opinion polls through the university website - Learning Outcomes Assessment Poll
Other		



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

**Assessment Methods** (Direct, Indirect)

### G. Specification Approval

<b>COUNCIL /COMMITTEE</b>	<b>PROGRAM COUNCIL</b>
<b>REFERENCE NO.</b>	<b>14450625-0540-00008</b>
<b>DATE</b>	<b>08/01/2024</b>

