

# Course Specification

— (Bachelor)

Course Title: **Physiology**

Course Code: **BMS26212**

Program: **All programs of Applied Medical Sciences**

Department: **Basic Medical Sciences**

College: **Applied Medical Sciences**

Institution: **University of Bisha**

Version: **1**

Last Revision Date: **8-2-1445 H**



## Table of Contents

A. General information about the course: .....	3
B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods .....	4
C. Course Content .....	4
D. Students Assessment Activities .....	5
E. Learning Resources and Facilities.....	5
F. Assessment of Course Quality .....	6
G. Specification Approval .....	7





## A. General information about the course:

### 1. Course Identification

1. Credit hours: 2(1+1)

#### 2. Course type

A.  University  College  Department  Track  Others

B.  Required  Elective

3. Level/year at which this course is offered: (3<sup>rd</sup> level / 2<sup>nd</sup> year)

#### 4. Course general Description:

This course is designed to provide students with an understanding of the function and regulation of the human body and physiological integration of the organ systems to maintain homeostasis. Course content will include cell structure and function, neural and hormonal homeostatic control mechanisms, as well as study of the blood and circulatory, respiratory, digestive, urinary, reproductive, and endocrine organ systems.

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

NA

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

NA

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

The primary goal of this course is to offer an in-depth presentation of the function of the major organs and organ systems of the human body. Furthermore, each section of the course has its own individual objectives that student should be able to answer upon completion of the particular section.

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

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	12	26.7%
3	Practical	30	66.7%
2	E-learning	3	6%

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

No	Activity	Contact Hours
1.	Lectures	12
2.	Laboratory/Studio	30
3.	Others (specify) E-learning	3
4.	Self-learning	30
Total		75



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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge and understanding</b>			
1.1	Describe the basics of human physiology.	K1	Lectures, E-learning	Written exam, E-learning activities
1.2	Outline the systems functions	K1		
<b>2.0</b>	<b>Skills</b>			
2.1	Examine the physiological processes of various body systems.	S1	Practical	Practical exam
2.2	Apply safety measures in physiology labs.	S2		
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	Work in a team in physiology lab.	V3	Practical	In-class evaluation, In-lab evaluation
3.2	Update his knowledge related to physiology.	V3		

## C. Course Content

No	List of Topics- Theory	Contact Hours
1	Introduction to Physiology	2
2.	The Blood constituents and functions.	2
3.	Cardiovascular physiology	2
4.	Renal physiology.	2
6.	Nervous system physiology	1
7.	Endocrine system.	1
8.	Respiratory system.	2
9.	Digestive system physiology.	2
10.	Reproductive system physiology.	1
	<b>Total theory</b>	<b>15</b>
No	List of Topics- Practical	Contact Hours
1	Blood samples collection	2
2	Blood cells morphology	4
3	Erythrocytes Sedimentation rate (ESR)	2
4	PCV	2
5	Hemoglobin determination	4
6	Blood grouping	2



7	Blood coagulation test	2
8	ECG	4
9	Blood pressure and pulse rate	4
10	Respiratory rate	2
11	Lung capacity and volumes	2
Total practical		30

## D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	E-Learning activities assignments and quizzes	5 <sup>th</sup>	15 %
2.	Midterm exam (theoretical and practical)	8 <sup>th</sup>	20%
3.	lab evaluation	All through	10%
4.	Seminar/Oral exam	9 <sup>th</sup>	5%
5.	Final practical exam	End of semester	20 %
6.	Final theory exam	End of semester	30 %
Total			100%

\*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	References
	<ul style="list-style-type: none"> <li>• Introduction to the Human Body. The Essentials of Anatomy and Physiology, 9thEd, John Wiley &amp; Sons, Inc., 2012.</li> <li>• Guyton and Hall, Medical Physiology, 11th edition, Elsevier-Saunders, 2006.</li> <li>• Comment: A comprehensive physiology textbook with nice diagrams and clear explanations.</li> <li>• L.S. Costanzo, Physiology, 4th edition, Saunders-Elsevier, 2010.</li> <li>• Comment: This soft-cover, large format textbook is a bit briefer than the others but contains good diagrams and good explanations.</li> <li>• L.R. Johnson, Essential Medical Physiology, 3rd edition, Elsevier-Academic Press, 2003.</li> </ul>

### Essential References

- Introduction to the Human Body. The Essentials of Anatomy and Physiology, 9thEd, John Wiley & Sons, Inc., 2012.
- Guyton and Hall, Medical Physiology, 11th edition, Elsevier-Saunders, 2006.
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- Comment: This soft-cover, large format textbook is a bit briefer than the others but contains good diagrams and good explanations.
- L.R. Johnson, Essential Medical Physiology, 3rd edition, Elsevier-Academic Press, 2003.

<b>Supportive References</b>	i. American journal of physiology ii. CL Ghai - A Textbook of Practical Physiology, 8th Edition.
<b>Electronic Materials</b>	
<b>Other Learning Materials</b>	Saudi electronic library

## 2. Required Facilities and equipment

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1. Lecture rooms should be large enough to accommodate the acceptable students. 2. Laboratories should be will prepared, good ventilated, lightening, full equipped and large enough to accommodate acceptable students at a time, provided by viewers, data show, computers. 3. Safety Measures and emergency exits.
<b>Technology equipment</b> (projector, smart board, software)	1. Maintenance of computers with trained responsible persons. 2. Computer laboratory accommodating 50 students at a time needed for online testing.
<b>Other equipment</b> (depending on the nature of the specialty)	

## 2. Required Facilities and equipment

Items	Resources
<b>facilities</b>	1. Lecture rooms should be large enough to accommodate the acceptable students. 2. Laboratories should prepare, good ventilated, lightening, full equipped and large enough to accommodate acceptable students at a time, provided by viewers, data show, computers. 3. Safety Measures and emergency exits. 4. complete physiology lab
<b>Technology equipment</b>	1. Maintenance of computers with trained responsible persons. 2. Computer laboratory accommodating 50 students at a time needed for online testing.

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Program Leaders Peer Reviewer Students	Direct / Indirect



Assessment Areas/Issues	Assessor	Assessment Methods
	Faculty Academic performance follows up committee. Students GPA	
Effectiveness of Students assessment	Program Leaders Peer Reviewer Students Faculty Academic performance follows up committee. Examination committee	Direct / Indirect
Quality of learning resources	Program Leaders Peer Reviewer Students Faculty PLOs assessment committee	Direct / Indirect
The extent to which CLOs have been achieved	Program Leaders Peer Reviewer Students Faculty Academic performance follows up committee. Examination committee Students Results	Direct / Indirect
Other		

### G. Specification Approval

<b>COUNCIL /COMMITTEE</b>	<b>DEPARTMENT COUNCIL</b>
<b>REFERENCE NO.</b>	<b>1/1444-1445</b>
<b>DATE</b>	<b>5-2-1445</b>

