Specification for Physiology course
2025/2026

1-Basic information

Course title	Physiology (A)							
Course code	PHY.117							
Department/s participating in delivery of the course	Physiology							
Number of units/credit hours	Theoretical	1	Practical	1(2)	Other	0	Total	2(3)
Course Type	√ **Obligatory** **Elective**							
Academic level at which the course is taught	1st year							
Semester	Fall semester							
Academic program	Bachelor of Veterinary Medicine (BVM)							
Faculty	Veterinary medicine							
University	Benha University							
Name of course coordinator	Prof. Dr. Abeer abd Elaaleem.							
Course Specification Approval Date	Faculty council 27-8-2025							
Course Specification Approval (Attach the decision/minutes of the department /committee/council ....)	Department council/ 8/7/2025							

2-Course overview

- **Course contents written in the program bylaw:**
- Cell physiology, physiology of blood and body fluids and physiology of respiratory system.

3- Course Learning Outcomes CLOs

	(NARS) outcomes		Course outcomes	
	Code	**Text**	**Code**	**Text**
			a1	Identify the cell constituent

				and their function
Knowledge and understanding	2.4	Physiological and biochemical bases of different organ functions, metabolic processes and homeostasis.	a2	Identify the blood constituent and their function
			a3	Describe the body fluid and their function
			a4	Describe the respiratory system and their function
Intellectual skills	4.1	Foster critical thinking and scientific curiosity	b1	Correlate the cellular function and dysfunction
			b2	Imply dysfunction related to blood constituent
			b3	Detect the role of body fluid in the body ecosystem
			b4	Interpret the problem related to respiratory system
Professional and practical skills	3.4	Perform clinical examination of diseased cases and collect relevant samples.	c1	Perform collection of blood samples from different species of domestic animals.
			c2	Calculate and count RBCs & WBCs
			c3	Measure the physiological parameter related to body fluid
			c4	Measure the physiological parameter related to respiratory
	D			
	5.2	Function in a multidisciplinary team.	d1	Self-learning during biochemistry lecture
General and transferable skills	5.4	Organize and control tasks and resources.	d2	Manipulate and organize tasks
	5.5	Search for new information and technology as well as adopting life–long self-learning.	d3	Search for new information about physiology

	5.6	Utilize computer and internet skills.	d4	Utilize computer and internet skills, read paper via internet physiology

4- Teaching and learning methods					
Lectures	√	**Discussion & seminar**	√	**Practical**	√
Presentation & movies	√	**Problem solving**	√	**Brain storming**	√
Others					

- Course Schedule:

Number of the Week	Scientific content of the course (Course Topics)	Total Weekly Hours		Expected number of the Learning Hours		
			Theoretical teaching (lectures /discussion groups/ .....)	Training (Practical/ Clinical/ .....)	Self-learning (Tasks/ Assignments/ Projects/ ...)	Other (to be determined)
W1	Cell physiology1	**2(3)**	**1**	**-**		**0**
W2	Cell physiology2	**2(3)**	**1**	**-**		**0**
W3	Cell physiology3	**2(3)**	**1**	**-**	Formative quiz	**0**
W4	Cell physiology4	**2(3)**	**1**	**-**		**0**
W5	Cell physiology5	**2(3)**	**1**	**-**		**0**
W6	Physiology of blood and body fluids1	**3(5)**	**1**	**2(4)**	Formative quiz	**0**

W7	Semester work (one hour exam)	----------				
W8	Physiology of blood and body fluids2	**3(5)**	**1**	**2(4)**		**0**
W9	Physiology of blood and body fluids3	**3(5)**	**2**	**2(4)**		**0**
W10	Physiology of blood and body fluids4	**2(3)**	**1**	**1(2)**	Formative quiz	**0**
W11	Physiology of blood and body fluids5	**2(3)**	**1**	**1(2)**		**0**
W12	Physiology of respiratory system1	**3(5)**	**1**	**2(4)**		**0**
W13	Physiology of respiratory system2	**3(5)**	**1**	**2(4)**		**0**
W14	Physiology of respiratory system3	**2(3)**	**1**	**1(2)**	Formative quiz	**0**
W15	Practical exam	----------				

5- Methods of students' assessment

a- Assessment methods (summative and formative)

1. **Formative assessment**: including (weekly quizzes, homework assignments and surveys).
2. **Summative assessment** including (quizzes, class activities, semester work, practical exam, oral exams and final written exams).

b- Assessment schedule and weight

Assessment method	**Assessment Timing (Week Number)**	**Marks/ Scores**	Percent Percentage of total course Marks
Semester work including one hour exam	7th week	10	10%
Practical exam	15th week	30	30%

Formative assessment	Through semester	-----	---------
oral exam	End of semester	10	10%
Written exam	End of semester	50	50%
Assignments / Project /Portfolio/ Logbook	--------	-------	-------
Field training	--------	----------	-------
Other (Mention)	-------	--------	-------
Total		100	100%

6- Learning resources and supportive facilities:

learning resources	**Main reference**	**Student handbook**: Veterinary Physiology, Edited by physiology staff members
	Essential books (text books)	-J. W. Harvey (2012) Veterinary hematology K. S. Nageswari (2007) practical manual of hematology Guyton, A. (1991) Textbook of Medical physiology. 8th, W.B. Saundero Company. K. S. Nageswari (2007) practical manual of hematology Guyton, A. (1991) Textbook of Medical physiology. 8th, W.B. Saundero Company.
	Periodicals, Web sites, . . . etc	www.ekb.eg *http://www.vt.com*
	Learning platform	Thinqi

supportive facilities	**Devices & instruments**	**Devices** - Microscope - centrifuge - Heamometer - Distillator - Electrical balance. - Microscopes. - Data show - Computer **Instruments** - Hemocytometer - Diluting pipette - Wintrobe tubes - Pasteur pipette - Capillary tubes - Westergren tubes - Sedimentation racks - Jars - Beaker - Glass slides

Matrices:

A- Content and ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
Cell physiology1	a1	b1	-	d1,d2, d3,d4
Cell physiology2	a1	b1	-	d1,d2, d3,d4
Cell physiology3	a1	b1	-	d1,d2, d3,d4
Cell physiology4	a1	b1	-	d1,d2, d3,d4
Cell physiology5	a1	b1	-	d1,d2, d3,d4
Physiology of	a2,a3	b2,b3	c1,c2,c3	d1, d2

blood and body fluids1				
Physiology of blood and body fluids2	a2,a3	b2,b3	c1,c2,c3	d1, d2
Physiology of blood and body fluids3	a2,a3	b2,b3	c1,c2,c3	d1, d2
Physiology of blood and body fluids4	a2,a3	b2,b3	c1,c2,c3	d1, d2
Physiology of blood and body fluids5	a2,a3	b2,b3	c1,c2,c3	d1, d2
Physiology of respiratory system1	a4	b4	c4	d1, d3
Physiology of respiratory system2	a4	b4	c4	d1, d3
Physiology of respiratory system3	a4	b4	c4	d1, d3

B- Teaching and learning methods and ILOs matrix:

ILOs	Teaching and Learning method					
	L	P&M	D&S	P	Ps	Bs

Knowledge and understanding	a1	√	√	√			
	a2	√	√	√			
	a3	√	√	√			
	a4	√	√	√			
Intellectual skills	b1	√		√			
	b2	√		√			
	b3	√		√			
	b4	√		√			
Professional and practical skills	c1			√	√		
	c2			√	√		
	c3			√	√		
	c4			√	√		
General skills	d1			√		√	√
	d2			√		√	√
	d3			√		√	√
	d4			√		√	√

L**: Lecture,** P&M**: Presentations & Movies,** D&S: **Discussions & Seminars P: Practical** Ps: **Problem solving,** Bs: **Brain storming**

C- Assessment methods and ILOs matrix:

ILOs		assessment method				
		Formative assessment	Semester work	Oral	practical	Written
Knowledge and understanding	a1		√	√		√
	a2		√	√		√
	a3		√	√		√
	a4		√	√		√
Intellectual skills	b1	√	√	√		√
	b2	√	√	√		√
	b3	√	√	√		√
	b4	√	√	√		√
Professional and practical skills	c1		√		√	
	c2		√		√	
	c3		√		√	
	c4		√		√	
	d1	√	√			

General skills	d2	√	√			
	d3	√	√			
	d4	√	√			

-Course coordinator:

Prof. Dr. Abeer Abdel Aleem**.**

-Program coordinator: Prof. Dr. Mahmoud Abouelroos