



Beni-Suef University  
Faculty of Veterinary Medicine

## Course specification (2018-2019)

### 1-Basic information

<b>Course Code:</b>	PHY: 12111
<b>Course title :</b>	General physiology
<b>Academic year:</b>	1 <sup>st</sup> Academic year
<b>Program title:</b>	B. Sc. Veterinary Medical sciences
<b>Contact hours/ week</b>	4 hours/week, (2 Lect./week, 2 Practical/week)
<b>Approval Date</b>	

### 2-Professional information

**Overall aims of course:**

**This course aims to:**

- 1- Identify, acquire and distinguish the functions of body cells and the integrated physiological mechanisms.
- 2- Recognizing physiological mechanisms that are required to control body fluid, nervous activities and behavior of different animal species, comparative aspects among animals are emphasized.

### 3- Intended learning outcomes of course (ILOs)

**a-Knowledge and understanding:**

**By the end of this course the student should be able to:**

- a1- Recognize the functional organization and structure of body cells.
- a2- understand the general and particular functions of blood and blood forming elements as well as their structure and regeneration.
- a3- Understand the role of blood cells in immunity.
- a4- Describe mechanisms aiming at maintenance of homeostasis.
- a5- Illustrate the feedback controls and autoregulations of body fluids.
- a6- Describe the functional organization & structure of nervous system and skeletal muscles.

**b-Intellectual skills**

**By the end of this course the student should be able to:**

- b1- Discriminate and analyze the reproductive organs functions and contributes to the normal maintenance of homeostasis.
- b2- Interpret physiological data information and use it for evaluation of function of different body systems.
- b3- Discriminate the general physiological mechanisms that culminate the functional disturbances of animal body.

**c-Professional and practical skills**



Beni-Suef University  
Faculty of Veterinary Medicine

## **Course specification (2017-2018)**

**By the end of this course the student should be able to:**

- c1- Identify the differences in structure, shape of cells in different species.
- c2- Deal with experimental animals as: rats.
- c3- Apply different blood laboratory experiments
- c4- Perform anaesthesia of experimental animals.
- C5- Collect blood sample from laboratory animals
- C6- Prepare muscle – nerve preparation and perform experiments on skeletal muscles

### **d-General and transferable skills**

**By the end of studying the course, the student should be able to:**

- d1- Work in a group and manage time.
- d2- Utilize new technological tools.
- d3- Able to communicate with animal specialists.
- d4- Utilize efficiently library facilities and IT tools.



## Course specification (2017-2018)

### 4-Topics and contents

Course	Topic	week	No. of hours	Lectures	Practical	
<b>Title</b> (Lec. 2 h./week, Pract. 2h./week)	<b>Cell physiology.</b>	1-4	<b>4</b>	<b>4</b>	----	
	<b>*Blood and body fluids</b>	1-8	<b>24</b>	<b>8</b>	<b>16</b>	
	<b>*Nervous system</b>	9-13	<b>8</b>	<b>8</b>	----	
	<b>* Nerve and Muscle.</b>	9-13	<b>16</b>	<b>6</b>	<b>10</b>	
	<b>Total</b>			<b>52</b>	<b>26</b>	<b>26</b>

### 5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows
- 5.2- Self learning by preparing essays and presentations (computer researches and faculty library)
- 5.3- Practical (models, samples of ----).

### 6-Teaching and learning methods for the students with disabilities

Office hours and special meeting

### 7-Student assessment

#### 7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	a1,a2,a3,a4, a5, a6	b1,b2,b3		
Practical Exam			c1,c2,,c3,c4,c5,c6	d1,d2,d3,d4
Oral Exam	a1,a2,a3,a4,a5, a6	b1,b2,b3		d2

#### 7.2. Assessment schedules/semester:

Method	Week(s)
Practical exams	15 <sup>th</sup> week
written exams	managed by administrations
Oral Exam	managed by the department
Student activities	Along the semester

#### 7.3. Weight of assessments:



### **Course specification (2017-2018)**

Assessment	Weight of assessment
Practical exams	20%
Final exams	50%
Oral Exam	%20
Student activities	10 %
	100%

#### **8- List of references**

##### **8.1. Notes and books**

Departmental notes on:

-None

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##### **8.2. Essential books:**

- Cunningham J. G. (2002): Textbook of Veterinary Physiology. 3rd Ed., W. B. Saunders Co., Philadelphia, London, Toronto, Sydney and Tokyo
- Ganong W. F. (2001): Review of Medical Physiology. 20th Ed., A Lang Medical Books, McGraw-Hill, Middle East Edition.
- Guyton A. C and Hall J. E. (1996): Textbook of Medical Physiology. 9th Ed., W.B. Saunders Co.
- Langley L. L.; Telford I. R. and Christensen J. B. (1980): Dynamic Anatomy and Physiology. 5th Ed., McGraw-Hill, USA

\*These books are found in the library of faculty of veterinary medicine , Beni-suef university.

##### **8.3. Recommended texts**

- McDonald L. E. (1984): Veterinary Endocrinology and Reproduction. 3rd Ed., Lea and Fabiger, Philadelphia, USA
- Ruchebusch Y.; Phaneuf L. and Dunlop R. (1991): Physiology of Small and Large Animals. B. C. Decker Inc., Hamilton, Ontario L8P 4R5, USA
- Soliman F. A. (1975): Selections From Veterinary Physiology. Karnak Bookshop, Giza, Egypt.
- \* Swenson M. J. and Reece W. O. (1993): Duke's Physiology of Domestic Animals. 11th Ed., Ithaca, NY, Cornell Univ. Press

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##### **8.4. Journals, Websites .....etc**



Beni-Suef University  
Faculty of Veterinary Medicine

## **Course specification (2017-2018)**

### **Journals:**

- Journal of Endocrinology
- Veterinary Records
- Endocrinology
- Theriogenology

### **Websites:**

- <http://www.sciencedirect.com>
- Pub med
- AltaVista
- [http://www.Whitman.edu/Departments/Biology/classes/B111/B111\\_OutlinesCircGas.htm](http://www.Whitman.edu/Departments/Biology/classes/B111/B111_OutlinesCircGas.htm)

### **Course Coordinators**

Prof. Dr/Eid Abdelhamid Mabrouk

### **Head of Department**

Prof. Dr/Ahmed Hashem Mohamed



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Topic	Week	Intended learning outcomes of course (ILOs)			
		K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Cell physiology.	1-4	1	1,2,3	----	----
*Blood and body fluids	1-8	2-5	1,2, 3	1-5	1,2,3,4
*Nervous system	9-13	6	1,2,3	----	1,2
* Nerve and Muscle.	9-13	6	1,2,3	6	1,2,3



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