



Beni-Suef University
Faculty of Veterinary Medicine

Course specification (2016-2017)

1-Basic information

Course Code:	S2-Phys
Course title :	Animal physiology
Academic year:	2nd Academic year
Program title:	B. Sc. Veterinary Medical sciences
Contact hours/ week	7 hours/week, (4 Lect./week, 3 Practical/week)
Approval Date	

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 growth, maintenance, production, reproduction and behavior of different animal species including poultry and fishes. 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 various body systems.
- a2- Outline general and specific functions of the body systems. With emphasis on the comparative aspects between species of each organ system.
- a3- Describe mechanisms aiming at maintenance of homeostasis.
- a4- Describe some pathophysiological aspects underlying the development of common diseases.
- a5- Illustrate the feedback controls and autoregulations that achieve the necessary balances.
- a6- Describe the functional organization & structure of various poultry and fish body systems and its relation to function.

b-Intellectual skills

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

- b1- Discriminate and analyze the different 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



Beni-Suef University
Faculty of Veterinary Medicine

Course specification (2016-2017)

disturbances of animal body.

c-Professional and practical skills

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

- c1- Assess normal functions of body.
- c2- Identify the differences in structure, shape of cells in different species.
Deal with experimental animals as: rats.
- c3- Perform different physiological laboratory experiments.
- c4- Perform anaesthesia of experimental animals.
- c5- Perform semen analysis and vaginal smears
- c6- Collect blood samples from rat and different animals

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 (2016-2017)

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
Title (Lec. 4 h./week, Pract. 3h./week)	Cell physiology	8	8	----
	*Blood and tissue fluids	34	8	24
	*Cardiovascular system	15	10	3
	*Physiology of respiratory system	11	8	3
	Physiology of excretory system	8	8	-----
	Fish Physiology	9	6	3
	Physiology of nervous system	13	8	3
	Total	92	56	36
Title (Lec. 4 h./week, Pract.3 h./week)	*Nerve Physiology	10	4	6
	*Muscle Physiology	12	6	6
	*Endocrinology	11	11	-----
	*Physiology of male reproduction	14	5	9
	*Physiology of female reproduction	18	9	9
	Physiology of digestive system	19	13	6
	Metabolism and body temperature regulation	4	4	-----
	Poultry physiology	10	4	6
		Total	98	56

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



Course specification (2016-2017)

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,b3		
Practical Exam		b2,b3	c1,c2,,c3,c4,c5,c6	d1,d2,d3
Oral Exam	a1,a2,a3,a4,a5,a6	b1,b2,b3,b4,b5		d2

7.2. Assessment schedules/semester:

Method	Week(s)
Practical exams	15 th week
Final exams	managed by administrations
Oral Exam	managed by the department
Student activities	Along the semester

7.3. Weight of assessments:

Assessment	Weight of assessment
Practical exams	30%
Final exams	50%
Oral Exam	%20
Student activities	---
	100%

8- List of references

8.1. Notes and books

Departmental notes on:

-None

-

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.



Beni-Suef University
Faculty of Veterinary Medicine

Course specification (2016-2017)

- 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

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

8.4. Journals, Websitesetc

Journals:

- Journal of Endocrinology
- Veterinary Records
- Endocrinology

Websites:

- <http://www.sciencedirect.com>
- Pub med
- AltaVista
- 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



Course specification

Topic	Week	Intended learning outcomes of course (ILOs)			
		K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Cell physiology	1,2,3,4	1,3,4	3	2	1,2,3,4
Blood and tissue fluids	1,2,3,4,5,6,7,8,9,10	3,4	1,2,3	1,3,6	1,2,3,4
Cardiovascular system	5,6,7,8,9,10,11	1,2,3	1,2,3	1	1,2
Physiology of respiratory system	7,8,9,10,12	1,2,3,4	1,2,3	1	1,2,3
Physiology of excretory system	11,12,13,14	1,2,3,4,5	1,2,3	1	1,2,3,4
Fish Physiology	11,12,13	1,2,3,4,5	1,2,3	1	1,2,3
Physiology of nervous system	14	1,2,3,4,5,6	1,2,3	1	1,2
Nerve Physiology	1,2	1,2,3,4,5,6	1,2,3	1,3,4	1,2
Muscle Physiology	1,2,3,4	1,2,3,4,5,6	1,2,3	1, 3,4	1,2,3,4
Endocrinology	3,4,5,6	1,2,3,4,5	1,2,3	1	1,2,3,4
Physiology of male reproductive system	5,6,7,8	1,2,3,4,5	1,2,3	1,5	1,2,3,4
Physiology of female reproductive system	8,9,10,11	1,2,3,4,5	1,2,3	1,5	1,2,3
Physiology of digestive system	11,12,13,14	1,2,3,4,5	1,2,3	1,3	1,2,3
Metabolism and body temperature regulation	10	1,2,3,4,5	1,2,3	1, 3	
Poultry physiology	10,11,12,13,14	1,2,3,4,5,6,7	1,2,3	1	1,2,3,4



Beni Suef University
Faculty of Veterinary Medicine