



Beni-Suef University
Faculty of Veterinary Medicine

Course specification (2018-2019)

1-Basic information

Course Code:	PHY: 2222
Course title :	Comparative Physiology (Special)
Academic year:	2nd Academic year
Program title:	B. Sc. Veterinary Medical sciences
Contact hours/ week	4 hours/week, (2 Lect./week, 2 Practical/week)
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

- 1- Identify, acquire and distinguish the functions of male and female reproductive systems and the integrated physiological mechanisms.
- 2- Recognizing physiological mechanisms that are required to control reproduction, hormonal activities and behavior of different animal species including poultry and fishes. Comparative aspects among animals are emphasized
- 3- Reserve a comprehensive theoretical base in fish and avian physiology.

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 male and female reproductive systems.
- a2- Describe mechanisms aiming at maintenance of homeostasis.
- a3- Illustrate the feedback controls and autoregulations that achieve the necessary balances.
- a4- Describe the functional organization & structure of various poultry and fish body systems and its relation to function with emphasis on the comparative aspects between these species and mammals.

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.



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c-Professional and practical skills

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

- c1- Assess normal functions of reproductive organs.
- c2- Perform different physiological laboratory experiments on avian blood
- c3- Perform semen analysis
- c4- perform vaginal smear

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.



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4-Topics and contents

Course	Topic	week	No. of hours	Lectures	Practical	
Title (Lec. 2 h./week, Pract. 2h./week)	* Endocrinology	1-10	10	10	----	
	*Male reproduction	1-5	14	5	9	
	*Female reproduction	5-11	14	5	9	
	* Fish physiology.	10-13	3	3	---	
	* Avian physiology.	10-13	11	3	8	
	Total			52	26	26

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	LS	P&P.S	G.S
Final Exam	a1,a2,a3,a4	b1,b3		
Practical Exam		b2,b3	c1,c2,,c3,c4	d1,d2,d3,d4
Oral Exam	a1,a2,a3,a4	b1,b2,b3		d2

7.2. Assessment schedules/semester:

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



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7.3. Weight of assessments:

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, Websitesetc

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

Course Coordinators

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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)
* Endocrinology	1-10	1-3	1,2,3	1,3,4	1,2,3,4
*Male reproduction	1-5	1-3	1,2, 3	1,3,4	1,2,3,4
*Female reproduction	5-11	1-3	1,2,3	1,3,4	1,2
* Fish physiology.	10-13	4	1,2,3	---	1,2,3
* Avian physiology.	10-13	4	1,2,3	2	1,2,3,4



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