

Physiology B

Benha University

Faculty of Veterinary Medicine

Program on which the course is given: **Bachelor of Veterinary Medical Sciences**

Department offering the course: **physiology**

Academic year / Level : 1st year 2nd term

Date of specification approval: Ministerial Decree No 921, on 15/9/1987

Date of Dept approval:

A- Basic Information

Title: Physiology

Code: Vet 00614 b

No of Hours:

Lecture: 2 h / W

Practical: 2 h / W

Total: 4 h / W

B- Professional Information

1 – Overall Aims of Course:

This course is to provide the students with the basic knowledge about the physiology of muscles, nerves, urinary system, general metabolism and body temperature.

2 – Intended Learning Outcomes of Course (ILOs)

a-Knowledge and Understanding:

After successful completion of the course the students should be able to:

Verbs to be used

1- Define resting membrane potential and recognize its role in excitation of nerves and muscles

2- To know factors affecting muscle contraction and understand how each one affects contraction.

3- Understand the structure of urinary system and realize the function of each part

4- Define metabolism and list the factors affecting it.

b-Intellectual Skills

After successful completion of the course the students should be able to:
Determine muscle and nerve function.

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---. analyze different samples to allow diagnosis of different problems of urinary system.

----. Conclude how the animals acclimatized to the different environments.

c-Professional and Practical Skills

After successful completion of the course the students should be able to:
perform dissection of nerve and muscle.

c.2. draw different curves of muscle contraction using the kymograph.

c.3. calculate glomerular filtration rate and other kidney tests.

c.4. explain how to estimate the metabolic rate of different animals,

d-General and Transferable Skills

After successful completion of the course the students should be able to:

Information technology skills

▶ Using computers (word, spreadsheet, presentation, database)

▶ Conduct a search in digital library

▶ Communication skills: direct, ...etc.

▶ Self-learning skills (retrieve information from different sources independently)

▶ Working in a teamwork: recognizing and identifying views of others

3- Contents

Topic	No. of hours	Lecture	Practical
Muscle & nerve	27	9	18
Urinary system and acid base balance	20	8	12
Body temperature	17	8	9
General metabolism	11	5	6
Total	75	30	45

4- content-ILOs matrix

Content	ILOs			
	Knowledge and understanding	Intellectual	Professional and practical	General and transferable
Muscle & nerve	A3		C4	D1.6
Urinary system and acid base balance	A3		C4	D1.6
Body temperature	A3		C4	D1.6
General metabolism	A3	-----	C4	d1.6

5- Assessment-ILOS matrix

Assessment	ILOs			
	Knowledge and understanding	Intellectual	Professional and practical	General and transferable

6– Teaching and Learning Methods

Lectures and lab sessions in which one or more of the following facilities are used:

- 4.1. Over head projector.
- 4.2. Slide projector.
- 4.3. Kits for assessing kidney function tests.
- 4.4. Instruments for demonstration of nerves and muscles

7- Student Assessment Methods

- 5.1. Quiz to assess the understanding of the course.
- 5.2. Practical to assess practical skills.

5.3. Written exam to assess knowledge, understanding and intellectual skills.

5.4. Oral to assess understanding and transferable skills.

Assessment Schedule

Assessment 1: Quiz examination	week 6, 8 and 10.
Assessment 2: Practical examination	week 13.
Assessment 3: Written examination	week 15.
Assessment 4: Oral examination	week 15.

Weighting of Assessments

Quiz examination	10	%
Practical examination	30	%
Final- term examination	50	%
Oral examination	10	%
Other types of assessment	0	%
Total	100	%

8- List of References

8.1- Course Notes

Veterinary Physiology, Edited by M.E. Azab

8.2- Essential Books (Text Books)

1- Ruchebusch, Y., Phaneuf, I. and Dunlop, R (1991) Physiology of small and large Animals. B.C. Decker, Inc, Philadelphia, Hamilton.

2- Swenson M.J, Reece, W.O. and Comstock (1993) Duke's Physiology of Domestic Animals. 11th edition, publishing Associates a division of Cornell University press. Ithaca and London.

3- Gunningham, J. (1992) Text book of Veterinary Physiology. W.B. Saunderson Company, Toronto, Montreal, Tokyo.

4- Guyton, A. (1991) Text book of Medical physiology. 8th, W.B. Saunderson Company.

5- Ganong, W.F. (1989) Review of Medical Physiology. 9th (Middle East edition)
Appleton and Lang.

8.3- Periodicals, Web Sites, ... etc

9- Facilities Required for Teaching and Learning

Data show, Video Tapes. Kymographs, microscopes and ECG **Course**
Coordinator: Prof. Dr. M. E. Azab

Head of Department: Prof. Dr. M. E. Azab

Date