

Course Specifications

Anatomy and Embryology (First A)

General Anatomy, Avian, Fish anatomy and Urinary system anatomy

Benha University

Faculty of Veterinary Medicine

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

Department offering the course: **Department of Anatomy & Embryology**

Academic year / Level : 1st year

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

Date of Dept approval: 11/1/2011

A- Basic Information

Title: General Anatomy, Avian, Fish anatomy and Urinary system anatomy

Code: Vet 06615 a

No of Hours:

Lecture: 2 h/W

Practical: 4 h/W

Total: 6 h/W

B- Professional Information

1 – Overall Aims of Course:

The aim of this course is to provide the principle information about the general animal anatomy that will enable students to gain skills for comparative anatomy of the different body systems for the different domestic animals, beside it also provide the basic information about the avian and fish anatomy.

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

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

- a.1. Recognize a concise knowledge about the anatomy on the standards model .
- a.2. Understand the basic knowledge of fish and avian anatomy .
- a.3. Recognize a comprehensive knowledge about the general anatomy of Osteology, Arthrology, Myology, cardiovascular system and neurology of equines.
- a.4. Recognize a comprehensive knowledge about urinary system anatomy.
- a.5. Recognize the principles of the comparative anatomy for the bones, joints and muscles of the thoracic limb.

b- Intellectual Skills

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

- b.1. Apply a Comprehensive knowledge about the general Osteology, Arthrology, Myology and neurology of equines and the comparative anatomy of the other different domestic farm animal species.
- b.2. Use the best steps for the avian and fish dissection.
- b.3. Differentiate the bones of the thoracic limb for the all animal species in addition to the joints of forelimb in equines.
- b.4. Distinguish the site of origin of the different peripheral nerves.
- b.5. Inspect the origin and insertion of different skeletal muscles .
- b.6. Compare between the different organs of urinary system in different animals.

c- Professional and Practical Skills

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

- c.1. Measure the professional capability to dissect the thoracic limb.
- c.2. Measure the professional capability to identify the shape and position of the thoracic limb bones.
- c.3. Evaluate the skills to compare between bones and joints of the thoracic limb of different domestic animals .
- c.4. Evaluate the skills for determination of the different organs of fish and poultry.

d- General and Transferable Skills

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

- d.1. Use computers (word, spreadsheet, presentation, database).
- d.2. Use internet and conduct a search in digital library.
- d.3. Make oral presentations.
- d.4. Retrieve information from different sources independently.
- d.5. Solve any scientific problem.
- d.6. Know group dynamics to reach objectives
- d.7. Recognizing and identifying views of others
- d.8. Schedule tasks in order of importance
- d.9. Facilitate learning to all team

3- Contents:

Topic	No. of hours	Lecture	Practical
General Osteology	2	2	-
General Arthrology (syndesmology)	2	2	-

General Myology	2	2	-
General Nervous System	2	2	-
General Cardiovascular System	2	2	-
Avian Anatomy	12	10	2
Fish Anatomy	8	6	2
Urinary System	4	4	-
Bones of the thoracic limb	24	-	24
Dissection of the thoracic limb of horse	30	-	30
Special Arthrology of forelimb of horse	2		2
Total	90	30	60

-ILOs matrix

Content	ILOs			
	Knowledge and understanding	Intellectual	Professional and practical	General and transferable
General Osteology	a3	b1	c2	d6-d7-d8-d9
General Arthrology (syndesmology)	a3	b1	c3	d6-d7-d8-d9
General Myology	a3	b1	c1	d6-d7-d8-d9
General Nervous System	a3	b1		d6-d7-d8-d9
General Cardiovascular System	a3	b1		d6-d7-d8-d9
Avian Anatomy	a2	b2	c4	d6-d7-d8-d9
Fish Anatomy	a2	b2	c4	d6-d7-d8-d9
Urinary System	a4	b6		d6-d7-d8-d9
Bones of the thoracic limb	a3 -a5	b3	c2 -c3	d6-d7-d8-d9
Dissection of the thoracic limb of horse	a5	b4 -b5	c1	d6-d7-d8-d9
Special Arthrology of forelimb of horse	a3	b3	c3	d6-d7-d8-d9

5- Assessment-ILOS matrix

Assessment	ILOs			
	Knowledge and understanding	Intellectual	Professional and practical	General and transferable
Practical examination	a3-a5	b3-b4-b5	c1-c2-c3	d6-d7-d8-d9

Final- term examination	a2-a3-a4-a5	b1-b2-b3- b4-b5-b6	c1-c2-c3-c4	d6-d7-d8-d9
Oral examination	a2-a3-a4-a5	b1-b2-b3- b4-b5-b6	c1-c2-c3-c4	d6-d7-d8-d9
Mid term	a3-a4-a5	b1-b3-b4- b5-b6	c1-c2-c3	d6-d7-d8-d9

6- Teaching and Learning Methods

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

- ٦.1. Freshly died horses and donkeys.
- ٦.2. Educational models and phantoms.
- ٦.3. CD's, Power Point slides and video tapes in lecturing.
- 6.4. Prepared bones of died animals.
- 6.5. Demonstrating formalin preserved carcasses.
- 6.6. Freshly died fishes and chicken.

7- Student Assessment Methods

- ٧.1. Practical examination to assess the professional and practical skills.
- ٧.2. Written examination to assess knowledge, understanding and intellectual skills
- ٧.3. Oral examination to assess knowledge, transferable and intellectual skills.

Assessment Schedule

- Assessment 1: Midterm exam at week 7
 Assessment ٧: Practical exam at week 13
 Assessment ٧: Final- term at week 15
 Assessment ٤: Oral exam at week 15

Weighting of Assessments

Practical examination	30	%
Final- term examination	50	%
Oral examination	10	%
Mid term	10	%
Total	100	%

8- List of References

^1.1. Course Notes.

General anatomy.

Avian anatomy.

Fish anatomy.

Anatomy of urinary system.

Anatomy of thoracic limb.

^1.2. Recommended books:

- **Getty, R (1975).** Sisson and Grossman's The Anatomy of the Domestic Animals volume 1 & 2. 5th edition, W B Saunders.
- **Nickel, R., Schummer, A., Seiferle, E. / Parey, P. (1985).** The Anatomy of the Domestic Animals.
- Atlas of veterinary anatomy
- **Nickel, R., Schummer, A., Seiferle, E. / Parey, P. (1985).** The Anatomy of the Domestic Birds.

^1.3. Periodicals and Web sites:

Periodicals:

- Acta Anatomica
- Equine Veterinary journal.
- Journal of Animal Science.
- Research on Veterinary Science.
- American Journal of Veterinary Anatomy.
- American Journal of Veterinary Research.
- Veterinary Record.

Web sites: <http:// Pubmed.com>

9- Facilities Required for Teaching and Learning

- A laboratory for dissection and demonstration the muscles, bones and nerves of carcasses.
- Scalpels, knives and saws.
- Holders and tanks for preservation of organs and muscles

- Phantoms and models for different organs and bones.
- Carcasses, Chicken, fishes and animals for dissection and demonstration.
- Fishes and birds as model for anatomy.

Course Coordinator:

Prof. Dr. Hatem Bahgaat Houssainy

Head of Department:

Prof. Dr. Hatem Bahgaat Houssainy

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