

## Specification for anatomy and embryology course 2019/2020

### A-Affiliation

1.	<b>Relevant program</b>	Bachelor of Veterinary Medical Sciences (BVMSc)
2.	<b>Department offering the course</b>	Anatomy and embryology

**Date of specification approval:** ministerial decree No. 1727 on 26/4/2017  
(Approved in this template by the department council on 1/10/2019)

### B-Basic information

1.	<b>Course title</b>	Anatomy and embryology
2.	<b>Course code</b>	103(A) I
3.	<b>Level</b>	1 <sup>st</sup> year
4.	<b>Semester</b>	1 <sup>st</sup> semester
5.	<b>Total hours/week</b>	4
6.	<b>Lecture hours/week</b>	2
7.	<b>Practical hours/week</b>	2

### C-Professional Information

#### 1- Course learning objectives

The course provides 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 the course (ILOs):

##### a- Knowledge and understanding

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

- a1- Depict a concise knowledge about the anatomy on the standards model
- a2- Identify the basic knowledge of fish and avian anatomy
- a3- Describe a comprehensive knowledge about the general anatomy of Osteology, Arthrology, Myology, cardiovascular system and neurology of equines
- a4- Identify a comprehensive knowledge about urinary system anatomy
- a5- Mention 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:

- b1- Distinguish the general Osteology, Arthrology, Myology and neurology of equines and the comparative anatomy of the other different domestic farm animal species
- b2- Choose the best steps for the avian and fish dissection
- b3- Differentiate the bones of the thoracic limb for the all animal species in addition to the joints of forelimb in equines
- b4- Distinguish the site of origin of the different peripheral nerves
- b5- Inspect the origin and insertion of different skeletal muscles
- b6- Compare between the different organs of urinary system in different

#### c- Professional and practical skills

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

- c1- Measure the professional capability to dissect the thoracic limb,
- c2- 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 to compare between organs of urinary, cardiovascular, nervous systems of different domestic animals beside avian and fish anatomy

#### d- General and transferable skills

After successful completion of the course the students should have the following skills

- d1- Team working skills group dynamics to reach objectives
- d2- Search skills (internet and conduct a search in digital library)
- d3- Problem solving skills
- d4- Oral presentations skill
- d5- time management skills (Schedule tasks in order of importance)

### 3- Course contribution in the program ILOs:

Course ILOS		Program ILOS
A	<b>Knowledge and understanding</b>	a <sup>3</sup>
B	<b>Intellectual skills</b>	b <sup>1</sup>
C	<b>Professional and practical skills</b>	c <sup>1</sup>
D	<b>General and transferable skills</b>	d <sup>2</sup>

#### 3.1- Course contents:

Topic	Lecture hours	Practical hours
General Osteology	2	-
General Arthrology (syndesmology)	2	-
General Myology	2	-
General Nervous System	2	-
General Cardiovascular System	2	-
Avian Anatomy	8	1

Fish Anatomy	6	2
Urinary System	6	-
Bones of the thoracic limb	-	10
Dissection of the thoracic limb of horse	-	15
Special Arthrology of forelimb of horse	-	2
<b>Total hours</b>	<b>30</b>	<b>30</b>

**The midterm and practical exams are included during the semester**

### 3.2- ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
General Osteology	a1, a3	b1	c2	d1 to d5
General Arthrology (syndesmology)	a1, a3	b1	c3	d1 to d5
General Myology	a1, a3	b1	c1	d1 to d5
General Nervous System	a1, a3	b1	c4	d1 to d5
General Cardiovascular System	a1, a3	b1	c4	d1 to d5
Avian Anatomy	a2	b2	c4	d1 to d5
Fish Anatomy	a2	b2	c4	d1 to d5
Urinary System	a4	b6	c4	d1 to d5
Bones of the thoracic limb	a3 -a5	b3	c2 -c3	d1 to d5
Dissection of the thoracic limb of horse	a5	b4 -b5	c1	d1 to d5
Special Arthrology of forelimb of horse	a3	b3	c3	d1 to d5

### 4- Teaching and learning and assessment methods:

ILOs	Teaching and Learning method								assessment method					
	L	P&M	D&S	P	Ps	Bs	S	Rp	semester	midterm	oral	practical	written	
Knowledge and understanding	a1	x	x	x	x	0	x	x	0	x	x	x	0	x
	a2	x	x	x	x	0	x	x	0	x	x	x	0	x
	a3	x	x	x	x	0	x	x	x	x	x	x	0	x
	a4	x	x	x	x	0	x	x	0	x	0	x	0	x
	a5	x	x	x	x	0	x	x	x	x	0	x	0	x
Actual	b1	x	x	x	x	x	x	x	0	x	x	x	0	x
	b2	x	x	x	x	x	x	x	0	x	x	x	0	x

	b3	x	x	x	x	x	x	x	0	x	0	x	0	x
	b4	x	x	x	x	x	x	x	x	x	0	x	0	x
	b5	x	x	x	x	x	x	x	0	x	0	x	0	x
	b6	x	x	x	x	x	x	x	0	x	0	x	0	x
al and practical	c1	0	x	x	x	x	x	x	0	x	0	x	x	0
	c2	0	x	x	x	x	x	x	0	x	0	x	x	0
	c3	0	x	x	x	x	x	x	0	x	0	x	x	0
	c4	0	x	x	x	x	x	x	0	x	0	x	x	0
General skills	d1	x	x	0	x	x	0	0	x	x	0	x	0	0
	d2	0	x	x	0	0	x	0	0	x	0	x	0	x
	d3	x	x	x	x	x	x	x	0	x	0	x	x	x
	d4	x	x	0	0	0	0	0	x	0	0	x	0	0
	d5	x	0	0	0	0	0	0	x	0	x	0	x	x

L :Lecture, P&M: Presentations & Movies, D&S: Discussions & Seminars P: Practical Ps: Problem solving, Bs: Brain storming S: simulation Rp: role play

### 5- Assessment timing and grading:

Assessment method	timing	grade
oral exam		15
Mid-term exam and semester work	6 <sup>th</sup> week	15
Practical exam	14 <sup>th</sup> week	20
Written exam	End of semester	50
total		100

### 6- List of references

**6.1- Course notes:** General anatomy, Avian anatomy, Fish anatomy, Anatomy of urinary system, Anatomy of thoracic limb

#### 6.2- Essential books (text books)

- Alexander de Lahunta (2015) Veterinary neuroanatomy and Clinical Neurology
- G. E. Abdelhakim (2009) Atlas Anatomy of The Horse
- K.S. Roy (2009) foundation of veterinary embryology
- T.A.McGeady ,P.J.Quinn (2009) Veterinary Embryology

#### 6.3- Recommended books

- Course note
- Alexander de Lahunta (2015) Veterinary neuroanatomy and Clinical Neurology
- T.A.McGeady ,P.J.Quinn (2009) Veterinary Embryology.

#### 6.4- Periodicals, Web sites, . . . etc

- Acta Anatomica.
- Equine Veterinary journal
- American Journal of Veterinary Anatomy
- American Journal of Veterinary Research

- Veterinary Record
- [www.ekb.eg](http://www.ekb.eg)

#### 7- Facilities required for teaching and learning

- A laboratory for dissection and demonstration the muscles, bones and nerves of carcasses.
- Scalpels, knives and saws.
- Phantoms and models for different organs and bones
- Carcasses, Chicken, fishes and animals for dissection and demonstration
- Fishes and birds as model for anatomy
- Anatomy museum or anatomy lab. skill

Course coordinator: **Dr. Hatem Bahgaat Houssainy**

Head of department **Dr. Hatem Bahgaat Houssainy**

Signature.....

Date. 1/10/2019

