

Specification for anatomy and embryology course

2019/2020

A-Affiliation

| | | |
|----|--------------------------------|---|
| 1. | Relevant program | Bachelor of Veterinary Medical Sciences (BVMSc) |
| 2. | Department offering the course | 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. | Course title | Anatomy and embryology |
| 2. | Course code | 111(B) II |
| 3. | Level | 1 st year |
| 4. | Semester | 2 nd semester |
| 5. | Total hours/week | 4 |
| 6. | Lecture hours/week | 2 |
| 7. | Practical hours/week | 2 |

C-Professional Information

1- Course learning objectives

The course provides the principle information about male and female genital systems and general embryology; beside it also provide the basic information that will enable the students to gain the skills about the comparative anatomy of the different domestic animals concerning this view

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- Describe a concise knowledge about the anatomy of the male and female genital systems of different farm animals
- a2- Describe a concise knowledge about embryology
- a3- Realize the anatomical features and the position of the male and female genital systems for the different domestic animals
- a4- Describe the principles of the comparative anatomy for the bones, joints and muscles of the pelvic limb
- a5- Describe a concise knowledge about hoof

b- Intellectual skills

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

- b1- Determine the different bone types of the different animal species in addition to the joints of pelvic limb in equines
- b2- Determine the sites of the different peripheral nerves and its branches
- b3- Determine the origin and insertion of different skeletal muscles of the pelvic limb
- b4- Determine the basis of embryology and the primordial origin of the different body systems and organs
- b5- Compare between the different organs of male and female genital system in different animals
- b6- Illustrate the anatomy of the hoof

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 pelvic limb
- c2- Measure the professional capability to identify the shape and position of the pelvic limb bones for the different domestic animals and hoof anatomy
- c.3- Evaluate the skills to compare between the pelvic limb bones and joints for the different domestic animals
- c.4- Evaluate the skills of the comparative dissection for male and female genital systems of the different animal species
- c.5- Evaluate the skills for determination of the primordial origin of the different body systems and organs

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 Knowledge and understanding | a ³ |
| B Intellectual skills | b ¹ |
| C Professional and practical skills | c ¹ |
| D General and transferable skills | d ^{1,2,6} |

3.1- Course contents:

| Topic | Lecture hours | Practical hours |
|--|---------------|-----------------|
| Male genital system | 6 | - |
| Female genital system | 6 | - |
| General Embryology | 14 | - |
| Bones of the pelvic limb | - | 24 |
| Dissection of the pelvic limb of horse | - | 32 |
| Special Arthrology of pelvic limb of horse | 4 | - |
| Hoof Anatomy | - | 4 |
| Total hours | 30 | 60 |

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 |
|--|--------------------------------------|------------------------------|--|---|
| Male genital system | a1, a3 | b5 | c4 | d1 to d7 |
| Female genital system | a1, a3 | b5 | c4 | d1 to d7 |
| General Embryology | a2 | b4 | c5 | d1 to d7 |
| Bones of the pelvic limb | a4 | b1 | c2,c3 | d1 to d7 |
| Dissection of the pelvic limb of horse | a4 | b2,b3 | c1 | d1 to d7 |
| Special Arthrology of pelvic limb of horse | a4 | b1 | c3 | d1 to d7 |
| Hoof Anatomy | a5 | b6 | c2 | d1 to d7 |

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 | 0 | x | x | x | 0 | x |
| | a4 | x | x | x | x | 0 | x | x | x | x | 0 | x | 0 | x |
| | a5 | x | x | x | x | 0 | x | x | 0 | x | 0 | x | 0 | x |
| Intellectual skills | b1 | x | x | x | x | x | x | x | 0 | x | x | x | 0 | x |
| | b2 | x | x | x | x | x | x | x | x | 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 |

| | | | | | | | | | | | | | | | |
|----------------------------|----------------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Professional and practical | 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 | |
| | 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 | |
| | c5 | 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 |
|---------------------------------|-----------------------|-------|
| Mid-term exam and semester work | 6 th week | 15 |
| Practical exam | 14 th week | 20 |
| oral exam | End of semester | 15 |
| Written exam | End of semester | 50 |
| total | | 100 |

6- List of references

6.1- Course notes: Male genital system, Female genital system, General embryology, Dissection of the pelvic 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
- T.A.McGeady ,P.J.Quinn (2009) Veterinary Embryology
- T. O. Mccracken (2008) color atlas of small animal anatomy: the essentials
- K. V.Kardong (2006) Comparative Vertebrate Anatomy

6.3- Recommended books

- Course note
- Alexander de Lahunta (2015) Veterinary neuroanatomy and Clinical Neurology
- T. O. Mccracken (2008) color atlas of small animal anatomy: the essentials
- K. V.Kardong (2006) Comparative Vertebrate Anatomy.

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

7- Facilities required for teaching and learning

1. A laboratory for dissection and demonstration the muscles, bones and nerves of carcasses.
2. Scalpels, knives and saws.
3. Carcasses and animals for dissection and demonstration
4. Donkeys as a model for horse
5. Anatomy museum or anatomy lab. skill

Course coordinator: Dr. Hatem Bahgaat Houssainy

Head of department Dr. Hatem Bahgaat Houssainy

Signature.....

Date. 1/10/2019

