COURSE SPECIFICATIONS

Postgraduate courses
(Master)

Prepared By
Anatomy & Embryology Department

University: Benha
Faculty: Veterinary Medicine

Course Title: Comparative Respiratory, Lymphatic and Cardiovascular Systems

Code: 5

Department offering the course: Anatomy and Embryology Department

Program(s) on which the course is given: Master. Degree in Veterinary Science (Anatomy)

Academic year / Level: 2011-2012

Date of specification approval: /2017

A- Basic Information

Title: Comparative Respiratory, Lymphatic and Cardiovascular Systems

Credit Hours:
Lecture: 2
Tutorial: 
Practical: 2
Total: 4/w

B- Professional Information

1 - Overall Aims of Course: The postgraduate student gain the experience in the anatomy of the nasal cavity, larynx, trachea, lung, lymph nodes, spleen and heart of ruminants, camel, horse, dog and pig. At the end of the course, they are provided with the advanced knowledge of the anatomy of the respiratory, lymphatic and cardiovascular systems and organs in domestic animals. The student will be able to identify the comparative organs of different animal species and use these anatomical knowledge in other veterinary fields such as medicine, surgery, meat hygiene…………etc.
### 2 - Intended Learning Outcomes of Course (ILOs)

**A-Knowledge and Understanding:**

After successful completion of this course the student should be able to:

A1- Understand the anatomy of the respiratory system on a comparative basis between different animal species.

A2- Distinguish the anatomy of the heart on a comparative basis between species.

A3- Recognize the anatomy of the lymphatic system on a comparative basis between species.

A4- Recognize the boundaries of the normal area for percussion and auscultation of the lung in each species and Identify the position of the heart in the body with reference to external landmarks and to palpate the heart beat.

**B-Intellectual Skills**

After successful completion of this course the student should be able to:

B1- Estimate the problems of the heart and lung.

B2- Determine the different degrees of resonance and heart sounds heard in the area of percussion and auscultation.

B3- Assess inquiries from the animal owners and the official authorities reports (e.g. Forensic Medicine) and how to answer it.

**C-Professional and Practical Skills**

After successful completion of this course the student should be able to:

C1- Implement surface anatomy knowledge on the living animals and in approaching some field cases.

C2- Use the radiographic anatomy of the heart and lung in clearing some field problems.
C.3- Demonstrate the position of lymph nodes in the body.

**D- General and Transferable Skills**

After successful completion of this course the student should be able to:

D.1 Prepare a scientific papers and essays.

D.2 Acquires the skill of oral Presentation (Using the Over Head Projector, power point program and other 3D programs).

D.3 Constructing a poster and its presentation.

D.4 Time management & work in team.

**E- Attitude**

E1- Scientific Integrity.

E2- Knowledge of the rules of the scientific researches.

E3- Respect his profession and encourage cooperation with colleagues

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<td><strong>Topic</strong></td>
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<td>Anatomy of Lymphatic system</td>
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<td>Anatomy of the Heart</td>
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<td>Arteries, Veins and capillaries</td>
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<td>Review article</td>
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<td>seminar</td>
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<th>4. Program - Course ILO Matrix:</th>
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<tr>
<td><strong>Content title</strong></td>
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<td>Anatomy of Lymphatic system</td>
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<td>Anatomy of the Heart</td>
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5 Teaching and Learning Methods

51-lectures
52-Practical
53- practical training on living animals
54-reports

6 Student Assessment Methods

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<th>Assessment</th>
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<tr>
<td>61 seminar &amp; researches</td>
<td>student ability discussion his attendants</td>
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<tr>
<td>62 oral examination</td>
<td>ability to demonstrate his knowledge</td>
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<tr>
<td>63 practical exam</td>
<td>practical skills</td>
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<td>64 final exam</td>
<td>different skills</td>
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Assessment Schedule

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<tr>
<th>Assessment</th>
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<tbody>
<tr>
<td>Assessment 1</td>
<td>7th week</td>
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<tr>
<td>Assessment 2</td>
<td>14th</td>
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<tr>
<td>Assessment 3</td>
<td>21st</td>
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<td>Assessment 4</td>
<td>28th</td>
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Weighting of Assessments

<table>
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<tr>
<td>Final-term Examination</td>
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<tr>
<td>Oral Examination</td>
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<tr>
<td>Practical Examination</td>
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<tr>
<td>seminar &amp; researches</td>
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<tr>
<td>Other types of assessment</td>
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<td>Total</td>
<td>100%</td>
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7 List of References

71- Books


72- Periodicals, web sites, … etc.
   Periodicals
   o Anatomia Histologia Embryologia (Journal of the World Association of Veterinary Anatomists)
   o Anatomical Record
   o Veterinary Radiology
   Websites
   o WAVA
   o Veterinary Anatomy Course.
   o CONVINCE
   o Comparative Mammalian Brain Collection.
   o Veterinary Courseware at Massey University, New Zealand

8 Facilities required for teaching and Learning

A) Available
   • Formalin preserved specimens.
   • X-ray images.
   • Over Head Projector.
   • Posters and colored sheets and transparencies.

B) Required
   • Models of comparative organs of different animal species.
   • Comparative Plastinated organs.
   • Stereo-Microscope.
   • Tools and electric appliances for organs, skeletons and bone preparation.
   • Mobile ultrasonic apparatus.
   • Data Show.
   • CDs. (anatomy, applied anatomy, radiographic anatomy, etc.)
   • Television circuit for the dissection room.

Course Coordinator: Prof. Dr. Hatem Bahgaat

Head of Department: Prof. Dr. Hatem Bahgaat

Date: 17/1/2012