COURSE SPECIFICATIONS

Graduate courses

Prepared By

Anatomy & Embryology Department

Faculty: Veterinary Medicine

University: Benha

Course Title: Comparative Digestive System

Code: 3 (advanced)

Department offering the course: Anatomy and Embryology Department

Program (s) on which the course is given: Ph. D. Degree in Veterinary science (Anatomy)

Year / Level: 2011-2012

Date of specification approval: /2012

A - Basic Information

Title: Comparative Digestive System

Credit Hours:

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

B - Professional Information

Overall Aims of Course:
The postgraduate student gain the experience in the anatomy of the oral cavity, pharynx, esophagus, abdominal cavity, stomach (ruminant stomach, intestine, liver, pancreas and salivary glands of ruminant), dog and pig. At the end of the course, the student will be able to identify the comparative features of digestive organs of different animal species and become able to use the anatomical knowledge in other veterinary fields such as medicine, surgery, etc.

Intended Learning Outcomes of Course (ILOs)

Knowledge and Understanding:

Successful completion of this course the student should be able to:

- Understand the anatomy of the digestive tract in different animal species.
- Understand the anatomy of the pharynx in different species of animals.
Recognize the guttural pouch in equines.

Recognize the position of the stomach in horse, dog and pig and other animals and birds and fishes.

Know and understand the anatomy of the ruminant stomach and has the ability to identify each compartment from the surface and know sites for surgical interference.

Trace the course of intestine in different species with reference to the cranial mesenteric artery. In addition to be able to locate each part of the intestinal tract by its position in the abdominal cavity in each species.

Recognize the position of the liver and pancreas and their affections

Understand the relation of salivary gland ducts and their relations for any necessitate surgical approach

Recognizes time of teeth eruptions and anatomy of all buccal cavity that will help in medicine and surgery.

Intellectual Skills

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

- Estimate the problems of the stomach like the direction of the gastric volvulus in dog and its effect on spleen.
- Conclude the functional significance of the movement of the rumen palpated in the left paralumbar fossa.
- Estimate the surgical anatomy of pharyngostomy in the dog.
- Assess inquiries from the animal owners and the official authorities reports (e.g. Forensic Medicine) and how to answer it.
- Can offers special help to different specialists for diagnosis any affection including G.I.T. and Associated Glands like liver, salivary glands, pancreas.
- Recognizes time of teeth eruptions and anatomy of all buccal cavity that will help in medicine and surgery.

Professional and Practical Skills

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

- Implement surface anatomy of the digestive tract on the living animals and in approaching some field cases.
- Use the radiographic anatomy of the esophagus and stomach in clearing some field problems.
- Able to trocarize the distended stomach of the cow or horse.
- Able to recognize the liver in radiographs.
- Can use several techniques for examinations and research like echo., thermography.
recognizes time of teeth eruptions and anatomy of all buccal cavity that will help in medicine and surgery.

General and Transferable Skills

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 a team
D.5 be creative and has self confidence to do other researches relate to that subject

Scientific integrity

The rules and ethics of scientific research

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<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Tutorial/Practical</th>
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<tbody>
<tr>
<td>Oral cavity, pharynx and esophagus</td>
<td>25</td>
<td>10</td>
<td>15</td>
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<tr>
<td>Abdominal cavity and peritoneum</td>
<td>25</td>
<td>10</td>
<td>15</td>
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<tr>
<td>Monolocular stomach, Ruminant stomach</td>
<td>25</td>
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<td>15</td>
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<tr>
<td>Intestine, Liver, pancreas and salivary glands</td>
<td>25</td>
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<td>Review article</td>
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<td>Seminar</td>
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### Oral cavity, pharynx and esophagus

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<tr>
<th>A (K&amp;U)</th>
<th>B (I.S)</th>
<th>C (P&amp;P.S)</th>
<th>D (G&amp;T.S)</th>
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### Abdominal cavity and peritoneum

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<th>A7</th>
<th>A8</th>
<th>B1</th>
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### Monolocular Stomach, Ruminant Stomach

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### Intestine, Liver, pancreas and salivary glands

| A2      | A3      | A4      | A5      | A6      | A7      | A8      | B1      | B2      | B3      | B4      | B5      | B6      | C1      | C2      | C3      | C4      | C5      | C6      |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| D1      | D2      | D3      | D4      | D5      | D6      | D7      | D8      | D9      | D10     | D11     | D12     | D13     | D14     | D15     | D16     | D17     | D18     | D19     |

### Teaching and Learning Methods

1. **Lectures**
2. **Practical training on living animals**
3. **Reports**
4. **Seminars & researches**

### Assessment Methods

1. **Seminars & researches**
   - to assess student ability discussion his attendants
2. **Oral examination**
   - to assess ability to demonstrate his knowledge
3. **Practical exam**
   - to assess practical skills
4. **Final exam**
   - to assess different skills

### 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 week</td>
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## References

**Books**


**Periodicals, web sites, … etc.**

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

## Facilities required for teaching and Learning

- Formalin preserved specimens.
- X-ray images.
- Over Head Projector.
- Posters and colored sheets and transparencies.
Models of comparative organs of different animal species.

- Comparative Plastinated organs.
- Tools and electric appliances for organs.
- Mobile ultrasonic apparatus.
- Data Show.
- CDs (anatomy, applied anatomy, radiographic anatomy etc.)
- Television circuit for the dissection room.

Course Coordinator: Prof. Dr. Hatem Bahgat
Head of Department: Prof. Dr. Hatem Bahgat

17/1/2012