COURSE SPECIFICATIONS

Postgraduate courses
(Ph D)

Prepared By

Anatomy & Embryology Department

University: Benha
Faculty: Veterinary Medicine

Course Title: Avian Anatomy
Code: 8 (advanced)
Department offering the course: Anatomy and Embryology Department
Program(s) on which the course is given: Ph. D. Degree in Veterinary science (Anatomy)
Academic year / Level: 2011-2012
Date of specification approval: /2012

A - Basic Information
Title: Avian Anatomy
Credit Hours:

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Tutorial</th>
<th>Practical</th>
<th>Total</th>
</tr>
</thead>
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<td>2</td>
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<td>2</td>
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B - Professional Information

1 - Overall Aims of Course: The postgraduate student gain the experience in the anatomy of oral cavity, pharynx, esophagus, abdominal cavity, stomach, air sacs, lung, cloaca and organs of poultry. At the end of the course, they are provided with the anatomy of respiratory, urinary and genital systems and organs in birds. The student will be able to identify the comparative organs of different avian species and become able to use the anatomical knowledge in other veterinary fields such as poultry diseases.

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 surface anatomy of the poultry.
A2- Understand the anatomy of the digestive tract in poultry.
A3- Understand the anatomy of the respiratory tract in poultry.
A4- Understand the anatomy of the urinary system in poultry.
A5- Understand the anatomy of the genital system in poultry.

B-Intellectual Skills

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

B1- Estimate the problems of the intestine and lung in poultry.
B2- Determine the position of bursa in poultry.
B3- Assess inquiries from the poultry owners and the official authorities' reports and how to answer it.
B4- Estimate the problems of the urogenital organs in poultry.

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 poultry and in approaching some cases.
C2- Use the radiographic anatomy of the esophagus and stomach in clearing some field problems.
C3- Do hard and wet formalin preserved anatomical specimens for display.
C4- know the relationship of different Compartments to the surface of different animals for easy surgical interference.

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 Presentation skills (Using the Over Head Projector, power point program and other 3D programs).
D.3 Constructing a poster and its presentation.
D.4 Time management.
D.5 Has self confidence and be creative that will help him to create another ways for diagnosis and assist him to help if asked.

E- Attitude

E1- Scientific integrity

E2- know the rules and ethics of scientific research

3. Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Tutorial/Pr</th>
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<tbody>
<tr>
<td>Anatomy of avian digestive system</td>
<td>25</td>
<td>10</td>
<td>15</td>
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<tr>
<td>Anatomy of avian Respiratory system</td>
<td>25</td>
<td>10</td>
<td>15</td>
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<tr>
<td>Anatomy of avian urinary system</td>
<td>25</td>
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<td>15</td>
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<tr>
<td>Anatomy of avian genital system</td>
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<tr>
<td>Review article</td>
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<tr>
<td>seminar</td>
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4. Program - Course ILO Matrix:

<table>
<thead>
<tr>
<th>Content title</th>
<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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<tr>
<td>Anatomy of avian digestive system</td>
<td>A1 A2 A3</td>
<td>B1 B2 B3</td>
<td>C1 C2 C3 C4</td>
<td>D1 D2 D3 D4</td>
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<tr>
<td>Anatomy of avian Respiratory system</td>
<td>A1 A3 A4</td>
<td>B1 B2 B3</td>
<td>C1 C2 C3 C4</td>
<td>D1 D2 D3 D4</td>
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<tr>
<td>Anatomy of avian urinary system</td>
<td>A1 A2 A5</td>
<td>B1 B2 B3</td>
<td>C1 C2 C3 C4</td>
<td>D1 D2 D3 D4</td>
</tr>
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</table>
### 5- Teaching and Learning Methods

5.1- lectures

5.2- Practical

5.3- practical training on living animals

5.4- reports

### 6- Student Assessment Methods

6.1 seminar & researches to assess student ability discussion his attendants

6.2 oral examination to assess ability to demonstrate his knowledge

6.3 practical exam to assess practical skills

6.4 final exam to assess different skills

### Assessment Schedule

<table>
<thead>
<tr>
<th>Assessment</th>
<th>7th week</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>Week 14th</td>
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<tr>
<td>Assessment 3</td>
<td>Week 21st</td>
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<tr>
<td>Assessment 4</td>
<td>Week 28th</td>
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### Weighting of Assessments

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
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<td>Mid-Term Examination</td>
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<tr>
<td>Final-term Examination</td>
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<tr>
<td>Oral Examination</td>
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</tr>
<tr>
<td>Practical Examination</td>
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<tr>
<td>seminar &amp; researches</td>
<td>10%</td>
</tr>
<tr>
<td>Other types of assessment</td>
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</tr>
<tr>
<td>Total</td>
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</tbody>
</table>

### 7- List of References

7.1- Books


- **Nickel, R., Schummer, A., Seiferle, E. / Paul Parey (1981).** The Anatomy of the
Domestic Animals.


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

8- Facilities required for teaching and Learning

A) **Available**
- Formalin preserved specimens.
- X-ray images.
- Comparative bone specimens.
- 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, embryology and teratology, applied anatomy, radiographic anatomy.
- Television circuit for the dissection room.

Course Coordinator: Prof. Dr. Hatem Bahgat
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<tr>
<th>Head of Department: Prof. Dr. Hatem Bahgat</th>
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<tbody>
<tr>
<td>Date:</td>
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<tr>
<td>17/1 /2012</td>
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