# COURSE SPECIFICATIONS

**Postgraduate courses**

*(Master)*

**Prepared By**

*Anatomy & Embryology Department*

<table>
<thead>
<tr>
<th>University: Benha</th>
<th>Faculty: Veterinary Medicine</th>
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<tbody>
<tr>
<td><strong>Course Title:</strong> Avian Anatomy</td>
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<tr>
<td><strong>Code:</strong> 8</td>
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<tr>
<td><strong>Department offering the course:</strong> Anatomy and Embryology Department</td>
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<tr>
<td><strong>Program (s) on which the course is given:</strong> Master Degree in Veterinary science <em>(Anatomy)</em></td>
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<td><strong>Academic year / Level:</strong> 2011-2012</td>
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<td><strong>Date of specification approval:</strong> /2012</td>
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## A- Basic Information

**Title:** Avian Anatomy

**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 oral cavity, pharynx, esophagus, abdominal cavity, stomach, air sacs, lung, cloaca and urogenital organs of poultry. At the end of the course, they are provided with the anatomy of the digestive, 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 anatomy of the digestive tract in poultry.
A2- Understand the anatomy of the respiratory system in poultry.
A3- Understand the anatomy of the urinary system in poultry.
A4- 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.

#### 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 field 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.

#### 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.

E- Attitude

E1-Scientific Integrity.
E2-Knowledge of the rules of the scientific researches.
E3-Respect his profession and encourage cooperation with colleagues

3. Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Tutorial/Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy of avian digestive system</td>
<td>25</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Anatomy of avian Respiratory system</td>
<td>25</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Anatomy of avain urinary system</td>
<td>25</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Anatomy of avian genital system</td>
<td>25</td>
<td>10</td>
<td>15</td>
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<tr>
<td>Review article</td>
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<td>10</td>
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<tr>
<td>seminar</td>
<td>10</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 (LS)</th>
<th>C (P&amp;P.S)</th>
<th>D (G&amp;T.S)</th>
<th>E (A)</th>
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<tr>
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<td>1 2 3 4</td>
<td>1 2 3</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3</td>
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<tr>
<td>Anatomy of avian digestive system</td>
<td>A1 A2 A3 A4</td>
<td>B1 B2 B3 C1 C2 C3 D1 D2 D3 D4 E1 E2 E3</td>
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<tr>
<td>Anatomy of avian Respiratory system</td>
<td>A1 A3 A4</td>
<td>B1 B2 B3 C1 C2 C3 D1 D2 D3 D4 E1 E2 E3</td>
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<tr>
<td>Anatomy of avian urinary system</td>
<td>A1 A3 A4</td>
<td>B1 B2 B3 C1 C2 C3 D1 D2 D3 D4 E1 E2 E3</td>
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<tr>
<td>Anatomy of avian genital system</td>
<td>A1 A3 A4</td>
<td>B1 B2 B3 C1 C2 C3 D1 D2 D3 D4 E1 E2 E3</td>
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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
Assessment 1 7rd week
Assessment 2 Week 14th
Assessment 3 Week 21th
Assessment 4 Week 28th

Weighting of Assessments
Mid-Term Examination 10%
Final-term Examination 50%
Oral Examination 10%
Practical Examination 20%
seminar & researches 10%
Other types of assessment
Total 100%

7- List of References
7.1- Books


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 ..etc.)
   - Television circuit for the dissection room.

Course Coordinator: Prof. Dr. Hatem Bahgaat
Head of Department: Prof. Dr. Hatem Bahgaat
Date: 17/1/2012