**COURSE SPECIFICATIONS**

*Postgraduate courses*

*(Ph D)*

*Prepared By*

*Anatomy & Embryology Department*

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**University:** Benha

**Faculty:** Veterinary Medicine

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**Course Title:** Applied and surface Anatomy

**Code:** 1 (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

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**A - Basic Information**

**Title:** Applied and surface Anatomy

**Credit Hours:**

<table>
<thead>
<tr>
<th>Lecture:</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>Tutorial:</td>
<td></td>
</tr>
<tr>
<td>Practical:</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>4/w</strong></td>
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**B - Professional Information**

**1 - Overall Aims of Course:** The postgraduate student gains the experience in the surface and applied anatomy of the horse, ox, dog, and pig. By the end of the course, they are provided with the advanced anatomical knowledge of the applied and surface anatomy in domestic animals and be able to identify sites for anesthetizing the animal for clinical interference. They become able also to use these anatomical information in other veterinary fields such as medicine, surgery, obstetrics…………etc.

Also know the sites for ideal surgical approach for different surgeries.

**2 - Intended Learning Outcomes of Course (ILOs)**

*A-Knowledge and Understanding:*
By the end of this course the student should be able to:

A1- Recognize the anatomy of the tendons and their action on joints & anatomy of eye for diagnostic and surgical purposes.

A2- Understand the anatomy of the muscles of the abdominal wall.

A3- Recognize the normal areas of percussion and auscultation.

A4- Identify the anatomy of the nerves of the thoracic and pelvic limbs.

A5- Recognize the sites of anesthesia of head, trunk and limbs.

A6- Realize the sites for surgical approach for the different organs for ideal surgical operations

B-Intellectual Skills

By the end of the course, the student should be able to:

B1- Estimate the problems of some organs and how to approach and deal with.( Rumen, liver, stomach,……………..etc)

B2- determines the sites of nerve blocks for different situations and determines the sites of different organs approach surgically.

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 all regions of body in clearing some field problems and can use ultrasonographical and computerized topographical methods for determine different organs that will lead him to best clinical results.

C.3- 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 Acquire 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 to create another tools that assist learning and Teaching

**E- Attitude**

E1- Scientific integrity

E2- know the rules and ethics of scientific research

### 3. Contents

<table>
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<th>No. of hours</th>
<th>Lecture</th>
<th>Tutorial/Practical</th>
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<td>Applied and surface anatomy of the Head and neck</td>
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<td>15</td>
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<tr>
<td>Applied and surface anatomy of the Thorax</td>
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<tr>
<td>Applied and surface anatomy of the Abdomen</td>
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<tr>
<td>Applied and surface anatomy of the Limbs</td>
<td>25</td>
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<tr>
<td>Review article</td>
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<td></td>
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<tr>
<td>seminar</td>
<td>10</td>
<td>10</td>
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</table>

### 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>
<th>E (A)</th>
</tr>
</thead>
</table>
Applied and surface anatomy of the Head and neck

| A1 | A2 | A3 | A4 | A6 | B1 | B2 | B3 | C1 | C2 | C3 | D1 | D2 | D3 | D4 | D5 | E1 | E2 |

Applied and surface anatomy of the Thorax

| A1 | A2 | A3 | A4 | A6 | B1 | B2 | B3 | C1 | C2 | C3 | D1 | D2 | D3 | D4 | D5 | E1 | E2 |

Applied and surface anatomy of the Abdomen

| A1 | A2 | A3 | A4 | A6 | B1 | B2 | B3 | C1 | C2 | C3 | D1 | D2 | D3 | D4 | D5 | E1 | E2 |

Applied and surface anatomy of the Limbs

| A1 | A2 | A3 | A4 | A6 | B1 | B2 | B3 | C1 | C2 | C3 | D1 | D2 | D3 | D4 | D5 | E1 | E2 |

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 | 7th week |
| Assessment 2 | Week 14th |
| Assessment 3 | Week 21st |
| 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.
   - CONVINCE
   - 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 specimens (bones and organs).
- 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.
C.T.
M.R.I.

Course Coordinator: Prof. Dr. Hatem Bahgaat, Associate prof. Ahmed Kassab

Head of Department: Prof. Dr. Hatem Bahgaat

Date: 17/1/2012