### COURSE SPECIFICATIONS for PhD

<table>
<thead>
<tr>
<th>University: Benha</th>
<th>Faculty: Veterinary Medicine</th>
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<tbody>
<tr>
<td><strong>Course Title</strong>: Physiology of mammalian endocrine glands and growth</td>
<td></td>
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<tr>
<td><strong>Code</strong>: 20(advanced)</td>
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<td><strong>Department offering the course</strong>: Department of Physiology.</td>
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<tr>
<td><strong>Program(s) on which the course is given</strong>: PhD Degree of Veterinary Medical Sciences (Animal physiology).</td>
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<tr>
<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

Adapted by the faculty committee for formulating the academic standard for post-graduate using the generic guidelines for post-graduate adapted by NAQAAE.

Credit Hours:??/??????

<table>
<thead>
<tr>
<th>Lecture: 2</th>
<th>Tutorial:</th>
<th>Practical: 2</th>
<th>Total: 4/w</th>
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#### B- Professional Information

1. **Overall Aims of Course**
   - a-To ensure that students reserve a comprehensive theoretical base in veterinary endocrinology and reproduction.
   - b-To provide students with the opportunities to develop communication, practical scientific research and teaching skills

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

#### A-Knowledge and Understanding:

  a1-To describe the location and structure of endocrine glands.
  a2-To explain the structural and functional relationships of endocrine glands.
  a3-To identify the hormones produced by endocrine glands and specify their physiological effects.
  a4-To discuss the sequellae of abnormal levels of hormone secretion.
  a5-To understand physiology of growth.

#### B-Intellectual Skills

  b 1-To deal with ethical and professional issues pertaining to large and small animal production.
  b 2-To compare the physiological effects and mechanism of action of hormones.
regulating body functions.
b3-To discuss the subjects related to endocrinology and reproduction in the form of seminars, reports and presentations.

**C-Professional and Practical Skills:**

c1-To demonstrate practical skills in handling small and large animals.
c2-To undertake advanced laboratory techniques used for hormones measuring.
c3-To demonstrate parameters of growth.

**D-General and Transferable Skills**

dl-To demonstrate a spirit of intellectual curiosity through research work.
d2-To demonstrate a degree of independence in research and use self initiatives in solving problems.
d3-To demonstrate the ability to learn independently for a career of lifelong learning.

**E- Attitude**

e1-To be kind with animals during experimentation and sacrifice.
e2-To respect his profession and encourage cooperation with colleagues in relevant departments.

**3. Contents**

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Tutorial/Practical</th>
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</thead>
<tbody>
<tr>
<td>Hormone cycle</td>
<td>20</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>Hypothalamus</td>
<td>35</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Pituitary gland</td>
<td>45</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Thyriod gland</td>
<td>45</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Parathyroid gland</td>
<td>11</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>The pancrease</td>
<td>20</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>The adrenal gland</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pineal gland</td>
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<td></td>
<td></td>
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<tr>
<td>Local hormones</td>
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The total hours are distributed over 44 weeks with 4 hours per week that gives a total of 176 hours

4- Teaching and Learning Methods:

4.1- lectures
4.2- Practical
4.3- reports
4.5- Review article
4.6- seminars

5- Student Assessment Methods:

5.1 practical exam  | to assess practical skills
5.2 oral examination | to assess ability to demonstrate his knowledge
5.3 final exam  | to assess different skills

Assessment Schedule

| Assessment 1 | Week | 42th |
| Assessment 2 | Week | 44th |
| Assessment 3 | Week | 44th |

Weighting of Assessments

| Final-term Examination | 50% |
| Oral Examination | 25% |
| Practical Examination | 25% |

Other types of assessment

Total 100%

6- List of References

7.1- Course Notes
Veterinary Physiology.

7.2- Essential Books (Text Books)

7.3- Recommended Books

6.4- Periodicals, Web Sites, … etc
Veterinary Journal
Journal of Veterinary Internal Medicine.
Veterinary Record.
8- Facilities Required for Teaching and Learning

Data show, TV

Laboratory

Library

Course Coordinator: Prof. Dr/ Mohamed ElSayed Azab

Head of Department: Prof. Dr/ Mohamed ElSayed Azab

Date: / /2012