ZOO 204 Course outline

Department of Biological Sciences

**Course Title:** Chordate Zoology (ZOO 204)

**Curriculum:** Biology Education

**Credit Hours:** 2 contact Hours

**Date of Revision:** June 24, 2010

**Prepared by:** Dr. K. A. Fasasi

**Prerequisites:** BIO 101, BIO 102, BIO 107 and BIO 108

**Course Description:** The course is designed for major biological science students to understand the evolutionary trends and adaptive radiations in higher animals (Chordates) for survival in their diverse environment. Also, to understand the economic benefits of these diverse groups of animals in terms of tourism, entertainment and balance ecosystem. The topics include: taxonomic classification on chordates, systematic study of the diversity and adaptive radiations of chordates, basic organization, general biology and mode of life of the representatives of Hemichordates, Urochordates, Cephalochordates, Agnathans, Pisces, Amphibians, Reptiles, Aves and Mammals.

**Texts:**

**Diana R. K. 1983.** *Animal Diversity*, University Tutorial Press, 842 Yeovil Road, Slough, SL1 4JQ 428pp.


**Teaching Aids:** Power point presentations, E-Library, animal diversity documentaries and contacts or visitations to animal museums or games reserves.

**Attendance Policy:** All students are expected to attend all classes. It is the responsibility of the students to make up any materials missed due to absence.

**Course Objectives:** Instructors shall make every effort to incorporate the following competencies

*Student-centered learning
*Problem solving
*Team work
*Project leadership
*Contextual learning
*Economic benefits of the course to the society

Upon completion students shall be able to:

1. Relate the evolutionary trend of animal kingdom from the lower animals to the higher animals.

2. Relate the adaptive radiations exhibited by different groups of higher animals to their survival in specific and chosen environment.

3. Identify specific facts such as morphological and physiological adaptations used in the taxonomical classification of the animals.

4. Explore the economic benefits of the higher animals in terms of entertainment, tourism without compromising natural conservation policies.

Course Delivery: All available technologies and methodologies will be used to create an active, student-centered learning environment appropriate the students’ level or age group.

Evaluation:

<table>
<thead>
<tr>
<th>Examination</th>
<th>70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>5%</td>
</tr>
<tr>
<td>Test</td>
<td>15%</td>
</tr>
<tr>
<td>Assignment</td>
<td>10%</td>
</tr>
<tr>
<td>Total score</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students / Lecturer familiarization and Course Introduction.</td>
</tr>
<tr>
<td>2</td>
<td>Taxonomic classification of Chordates.</td>
</tr>
<tr>
<td>3</td>
<td>General diversity and adaptive radiations of Chordates.</td>
</tr>
<tr>
<td>4</td>
<td>Biology of a selected representative of Hemichordates and Hemichordates’ diversity.</td>
</tr>
</tbody>
</table>
Biology of a selected representative of Urochordates and Urochordates’ diversity.

Biology of a selected representative of Cephalochordates and Cephalochordates’ diversity.

Biology of a selected representative of Agnathans and Agnathans’ diversity.

Biology of a selected representative of Pisces and Pisces’ diversity.

Biology of a selected representative of Amphibians and Amphibians’ diversity.

Biology of a selected representative of Reptilians and Reptilians’ diversity.

Biology of a selected representative of Avians and Avians’ diversity.

Biology of a selected representative of Mammalians and Mammalians’ diversity.

Revision / Examination.

**Project presentation** (see note below)

Students will work in groups and develop term projects with detailed reports which will be presented at the end of the semester.

*Suggested project topics:*

Photographic documentation of any selected groups of higher animals (Chordates) chosen by the students.