The University of Southern Queensland

Course Specification

Description: Vertebrate Zoology

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cat-Nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
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<tbody>
<tr>
<td>BIO</td>
<td>3306</td>
<td>25326</td>
<td>2, 2003</td>
<td>ONC</td>
<td>1.00</td>
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Academic Group: FOSCI
Academic Org: FOS002
HECS Band: 2
ASCED Code: 010915

STAFFING

Examiner: Neil McKilligan
Moderator: Kerry Withers

PRE-REQUISITES

Pre-requisite: BIO2103

SYNOPSIS

This course teaches the classification, morphology, anatomy, function and life-style of lower chordates and vertebrates. Topics include the classification and natural history of the Urochordata, Cephalochordata, Agnatha, Chondrichthyes, Osteichthyes, Amphibia, Reptilia, Aves and Mammalia, together with comparative study of major organ systems. This course will not be offered in 2003 and will be offered in even years only commencing in 2004.

OBJECTIVES

On successful completion of this course students will be able to:

- demonstrate an understanding of the classification, evolution, morphology, anatomy, function and life-style of vertebrate animals;
- demonstrate knowledge and skill in identification and dissection of vertebrates;
- demonstrate a general competence in practical zoology in the laboratory.

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lower Chordates: life history, structure and function of members of a Urochordate (sea squirt); anatomy and life style of the Cephalochordate Branchiostoma: Chordate relationships and the role of neoteny in the theory of evolution of the phylum.</td>
<td>3.00</td>
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</tbody>
</table>
2. Agnatha: lamprey larva and adult; anadromous life style; Hagfish. 2.00
3. Germ Layers: their distribution in the early embryo and their derivative tissues and organs. Segmentation. 3.00
4. Braincase, Jaws and Gill Arches: evolution and structure (hyostylic and holostylic jaw arrangement) 3.00
5. Chondrichthyes: adaptive radiation of sharks and rays. (Holocephali). Lateral line system. Gills. 6.00
6. Skeleton: axial and appendicular skeleton surveyed. Swimming v running skeletons 7.00
7. Muscles: major muscles of fish and mammal. 3.00
10. Amphibia: origin, diversity, anuran life history 3.00
11. Circulatory Systems: comparison of venous and arterial systems (emphasis on adaptations to speed blood flow and on heart and branchial arteries). Lymphatic system briefly. 7.00
12. Reptilia: terrestrial adaptations including the cleidoic egg. Classification and diversity. Jacobson's organ. Snake's teeth. 7.00
13. Aves: primary and secondary adaptations for flight. Modes of flying. Bird diversity. 10.00
15. Nervous System: dogfish brain and cranial nerves. Main structural variations in vertebrate brains, functions of main nerve tracts and centres in the mammalian brain. 10.00

TEXT and MATERIALS required to be PURCHASED or ACCESSED:

Books can be ordered by fax or telephone. For costs and further details use the 'Book Search' facility at http://bookshop.usq.edu.au by entering the author or title of the text.


**REFERENCE MATERIALS**

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

(This text are NOT to go into the Reserve Collection in the Library.)

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(This text are NOT to go into the Reserve Collection in the Library.)


(And also in this series: Guides to Living)

(This text are NOT to go into the Reserve Collection in the Library.)

**STUDENT WORKLOAD REQUIREMENTS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
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<tbody>
<tr>
<td>Examinations</td>
<td>8</td>
</tr>
<tr>
<td>Field Trips or Excursions</td>
<td>6</td>
</tr>
<tr>
<td>Laboratory or Practical Classes</td>
<td>48</td>
</tr>
<tr>
<td>Lectures</td>
<td>26</td>
</tr>
<tr>
<td>Private Study</td>
<td>78</td>
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### ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks Out of</th>
<th>Wtg(%)</th>
<th>Required</th>
<th>Due Date</th>
<th>Note</th>
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<tbody>
<tr>
<td>2 HOUR CLOSED THEORY TEST 25.00</td>
<td>25.00</td>
<td>25.00</td>
<td>Y</td>
<td>22 Jul 2003</td>
<td>(see note)</td>
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<tr>
<td>2 HR CLOSED PRACTICAL TEST 15.00</td>
<td>15.00</td>
<td>15.00</td>
<td>Y</td>
<td>22 Jul 2003</td>
<td>(see note)</td>
</tr>
<tr>
<td>ASSESSMENT OF PRAC. WORK 10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>Y</td>
<td>22 Jul 2003</td>
<td>(see note)</td>
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<tr>
<td>2 HR CLOSED THEORY EXAM 30.00</td>
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<td>END S2</td>
<td>(see note)</td>
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<tr>
<td>2 HR CLOSED PRACTICAL EXAM 20.00</td>
<td>20.00</td>
<td>20.00</td>
<td>Y</td>
<td>END S2</td>
<td>(see note)</td>
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**NOTES:**

- Examiner to advise date of the 2hr Closed Theory Test
- Examiner to advise date of 2hr closed practical test
- Examiner to advise details of Assessment of Practical Work
- Examination dates will be available during the Semester. Please refer to the examination timetable when published.
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### IMPORTANT ASSESSMENT INFORMATION

1. **Attendance requirements:**

   It is the students' responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

2. **Requirements for students to complete each assessment item satisfactorily:**

   To complete each of the assessment items satisfactorily, students must obtain at least 50% of the marks available for each assessment item.

3. **Penalties for late submission of required work:**

   If students submit assignments after the due date without prior approval then a penalty of 5% of the total marks available for the assignment will apply for each working day late.

4. **Requirements for student to be awarded a passing grade in the course:**

   To be assured of a passing grade, students must demonstrate, via the summative assessment items, that they have achieved the required minimum standards in relation to the objectives of the course by: (i) satisfactorily completing the examination and assignments; and (ii) obtaining at least 50% of the total weighted marks available for all summative assessment items.

5. **Method used to combine assessment results to attain final grade:**
The final grades for students will be assigned on the basis of the weighted aggregate of the marks obtained for each of the summative assessment items in the course.

6 Examination information:
   In a Closed Examination, candidates are allowed to bring only writing and drawing instruments into the examination.

7 Examination period when Deferred/Supplementary examinations will be held:
   Any Deferred or Supplementary examinations for this course will normally be held during the Semester 3 examination period.

8 University Regulations:
   Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL http://www.usq.edu.au/SECARIAT/calendar/Part5/ or in the printed version of the current USQ Handbook.

ASSESSMENT NOTES

9 In order to attend laboratory classes, students must provide and wear appropriate personal protective equipment. This shall include a laboratory coat, closed in shoes, and safety glasses. Such equipment must be approved by supervising staff. Failure to provide and wear the appropriate safety equipment will result in students being excluded from classes.

10 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner. Students must retain a copy of each item submitted for assessment. If request by the Examiner, students will be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to USQ within 24 hours of receipt of a request being made. In accordance with University's Assignment Extension Policy (Regulation 5.6.1), the examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances.