Course Outline

Code: ENS222
Title: Terrestrial Vertebrate Diversity and Ecology

School of: Science & Engineering
Teaching Session: Semester 2
Year: 2020
Course Coordinator: Scott Burnett, sburnett@usc.edu.au
Course Moderator: Dr Neil Tindale

Please go to the USC website for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1 Description
This course introduces you to the diversity, ecology and evolution of the terrestrial vertebrates through the disciplines of herpetology, ornithology and mammalogy. You will develop an appreciation of the scope and relevance of these disciplines via lectures and laboratory classes. You will participate in a local field project where you will apply theoretical knowledge and develop practical skills in ethical wildlife research.

1.2 Course topics
- Evolution of vertebrates
- The natural history of vertebrates
- Population and community ecology theory using vertebrate animal examples
- Ecology research skills and method
- Science communication.

2. What level is this course?
200 level Developing - Applying broad and/or deep knowledge and skills to new contexts. May require pre-requisites and introductory level knowledge/skills. Normally undertaken in the 2nd or 3rd year of an undergraduate program

3. What is the unit value of this course?
12 units
4. How does this course contribute to my learning?

<table>
<thead>
<tr>
<th>Specific Learning Outcomes</th>
<th>Assessment Tasks</th>
<th>Graduate Qualities or Professional Standards mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>On successful completion of this course you should be able to:</td>
<td>You will be assessed on the learning outcome in task/s:</td>
<td>Completing these tasks successfully will contribute to you becoming:</td>
</tr>
<tr>
<td>Apply and demonstrate knowledge of diversity, ecology and evolution of wildlife in various contexts.</td>
<td>Task 1, 2, 4</td>
<td>Knowledgeable, building disciplinary and interdisciplinary knowledge through a scholarly approach incorporating global and regional perspectives</td>
</tr>
<tr>
<td>Conduct scientific research using field and ecology data analysis skills</td>
<td>Task 3</td>
<td>Empowered, having both the capacity and confidence to pursue the attainment of full potential</td>
</tr>
<tr>
<td>Communicate in the style of a formal scientific poster</td>
<td>Task 3</td>
<td>Empowered, having both the capacity and confidence to pursue the attainment of full potential</td>
</tr>
<tr>
<td>Identify and apply ethical principles to wildlife research</td>
<td>Task 3, 4</td>
<td>Ethical, acting with integrity in intellectual, professional and community pursuits</td>
</tr>
</tbody>
</table>

5. Am I eligible to enrol in this course?

Refer to the USC Glossary of terms for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1 Enrolment restrictions
Nil

5.2 Pre-requisites
SCI102

5.3 Co-requisites
Nil

5.4 Anti-requisites
Nil

5.5 Specific assumed prior knowledge and skills (where applicable)
Nil

6. How am I going to be assessed?

6.1 Grading scale
Standard – High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL)

6.2 Details of early feedback on progress
In week 4 your responses to an online quiz will be viewed to ascertain your grasp of key concepts delivered during the first three weeks of this course.
6.3 Assessment tasks (Note different assessment schedules at Sippy Downs and Fraser Coast campuses)

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Assessment Tasks</th>
<th>Individual or Group</th>
<th>Weighting %</th>
<th>What is the duration / length?</th>
<th>When should I submit?</th>
<th>Where should I submit it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Online quiz</td>
<td>Individual</td>
<td>0</td>
<td>20 questions</td>
<td>Online at end of week 3</td>
<td>Online quiz</td>
</tr>
<tr>
<td>2</td>
<td>Practical exam</td>
<td>Individual</td>
<td>35</td>
<td>1hr</td>
<td>Week 5 Sippy Downs</td>
<td>Online or face-to-face</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Week 13 Fraser Coast</td>
<td>during timetabled class</td>
</tr>
<tr>
<td>3</td>
<td>Field project</td>
<td>Group</td>
<td>40</td>
<td>A3 scientific poster</td>
<td>Week 13 Sippy Downs</td>
<td>Blackboard SafeAssign</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Week 8 Fraser Coast</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Final exam</td>
<td>Individual</td>
<td>25</td>
<td>2hr</td>
<td>Centrally scheduled</td>
<td>Central exam venue</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>exam period</td>
<td></td>
</tr>
</tbody>
</table>

100%

Assessment Task 1: Online quiz

**Goal:** Demonstrate basic comprehension of the lecture and practical class material, and the course structure, covered up to and including week 3.

**Product:** Online quiz

**Format:** Multiple choice questions

**Criteria:** Demonstrated ability to correctly answer questions drawn from the course outline and lecture and practical classes up to and including week 3.

Assessment Task 2: Practical exam

**Goal:** Demonstrate an understanding of the relationships between animal form and ecology and to correctly identify animal groups.

**Product:** Individual, online, open book exam, or face-to-face written exam

**Format:** Individual; short answer exam

**Criteria:** Demonstrated ability to correctly identify the lifestyle of various animal specimens based on morphology of limbs, sensory organs, teeth and other traits covered during practical and lecture classes, and ability to correctly identify animal specimens using supplied resources.

Assessment Task 3: Scientific poster – field project

**Goal:** Produce a scientific poster outlining the methods, results and implications of field work.

**Product:** Digital copy scientific poster

**Format:** Group assessment; scientific poster which outlines the methods, results and implications of the combined data gathered during either face-to-face or at home (online) field activity. Layout follows the conventional scientific poster convention; Introduction, Methods, Results and Discussion; Appropriate use of images and text; appropriate analysis of ecological data collected during field surveys.

**Criteria:** Knowledge of wildlife diversity
Field data collection, analysis and communication skills
Meeting discipline specifications for a scientific poster
Assessment Task 4: Final exam

<table>
<thead>
<tr>
<th>Goal:</th>
<th>Demonstrate knowledge of evolution, adaptations and field study of vertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product:</td>
<td>End of year exam</td>
</tr>
<tr>
<td>Format:</td>
<td>Written exam including multiple choice and short answer questions</td>
</tr>
<tr>
<td>Criteria:</td>
<td>Correctly answer multiple choice questions; provide comprehensive written responses to short answer questions within the allotted time</td>
</tr>
</tbody>
</table>

7. What are the course activities?

7.1 Directed study hours

The directed study hours listed here are a portion of the workload for this course. A 12 unit course will have a total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Directed study hours may vary by location. Student workload is calculated at 12.5 learning hours per one unit.

This Course will be delivered via technology-enabled learning and teaching. All lectures will remain in this mode for Semester 2 2020. When government guidelines allow, students that elected on-campus study via the class-selection process will be advised when on campus tutorials and practical sessions will resume.

Please be aware that two different field activities are currently offered; (i) a face-to-face field class, and (ii) an online, backyard field class. Face-to-face classes may not be possible, or may run at one campus and not the other depending on government guidelines. Key aspects of the face-to-face field class will be recorded and provided to students. Online field classes will require you to collect your own data in your backyard using an online data collection app on your device.

<table>
<thead>
<tr>
<th>Location: Specific Campus(es) or online:</th>
<th>Directed study hours for location:</th>
</tr>
</thead>
<tbody>
<tr>
<td>USC Sunshine Coast</td>
<td>Lectures – 7 x 2hrs; Laboratory classes – 3 x 2hrs; Tutorials – 3 x 2hrs; field data collection – 8hrs.</td>
</tr>
<tr>
<td>USC Fraser Coast</td>
<td>Lectures – 7 x 2hrs, Laboratory classes – 3 x 2hrs, Tutorials – 3 x 2hrs; field data collection – 8hrs</td>
</tr>
</tbody>
</table>

7.2 Course content

The course delivers the same content but to a different schedule at the Sippy Downs and Fraser Coast campuses. Please ensure that you refer to the correct schedule below, depending on where you are based.

<table>
<thead>
<tr>
<th>Week #</th>
<th>Module #</th>
<th>SIPPY DOWNS CAMPUS: What key concepts/content will I learn?</th>
<th>FRASER COAST CAMPUS: What key concepts/content will I learn?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Evolution and biogeography of the vertebrates (Lecture)</td>
<td>Evolution and biogeography of the vertebrates (Lecture)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Herpetology (Lecture, Lab)</td>
<td>Counting wildlife/preparation for data collection (Lecture)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mammalogy (Lecture, Lab))</td>
<td>Conservation of Australian wildlife (Lecture), Field techniques – Counting wildlife (Field Class)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Ornithology (Lecture, Lab)</td>
<td>No classes</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Prac exam: Assessment Task 3</td>
<td>Counting wildlife – Data analysis: objectives and descriptive statistics (Workshop)</td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>Lecture Activity</td>
<td>Workshop Activity</td>
<td></td>
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<td>------</td>
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</tr>
<tr>
<td>6</td>
<td>Conservation of Australian wildlife (Lecture)</td>
<td>Counting wildlife – Task 3 Graphs and telling your story (Workshop)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Counting wildlife/preparation for data collection (Lecture)</td>
<td>Community ecology of vertebrates (Lecture), Counting wildlife – Task 3 drop-in workshop (Workshop)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Field ecology (Field class)</td>
<td>Herptiles (Lecture, Lab)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Community ecology of vertebrates, and activities wrap up (Lecture)</td>
<td>Mammals (Lecture, Lab)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Counting wildlife – Task 3 Data analysis: objectives and descriptive statistics (Workshop)</td>
<td>Aves (Lecture, Lab)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Counting wildlife – Task 3 Graphs and telling your story (Workshop)</td>
<td>Prac exam: Assessment Task 3</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Counting wildlife – Task 3 drop-in workshop (Workshop)</td>
<td>no lecture</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Final Exam preparation (Lecture)</td>
<td>Final Exam preparation (Lecture)</td>
<td></td>
</tr>
</tbody>
</table>

Please note that course content is subject to variation.

8. **What resources do I need to undertake this course?**

Please note that course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Blackboard site. Please log in as soon as possible.

It will be helpful for you to have your own laptop/notebook during workshops.

8.1 **Prescribed text(s)**

Nil

8.2 **Specific requirements**

Students will be required to either participate in a full day of field work on one day during week 8, commencing at dawn and finishing at dusk (face-to-face students), or you will need to collect your own data on your device using a wildlife recording App in your own back yard (online students).

9. **Risk management**

This course includes field and laboratory components which carry risks beyond those normally encountered in the class room. These risks will be managed within normal USC Risk Assessment framework.

It is your responsibility as a student to review course material, search online, discuss with lecturers and peers, and understand the health and safety risks associated with your specific course of study. It is also your responsibility to familiarise yourself with the University’s general health and safety principles by reviewing the online Health Safety and Wellbeing training module for students, and following the instructions of the University staff.

10. **What administrative information is relevant to this course?**

10.1 **Assessment: Academic Integrity**
Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

10.2 Assessment: Additional requirements

Eligibility for Supplementary Assessment
Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

a) The final mark is in the percentage range 47% to 49.4%

b) The course is graded using the Standard Grading scale

c) You have not failed an assessment task in the course due to academic misconduct

10.3 Assessment: Submission penalties

Late submission of assessment tasks will be penalised at the following maximum rate:

- 5% (of the assessment task’s identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task’s identified value) for the third day
- 20% (of the assessment task’s identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task.

Weekdays and weekends are included in the calculation of days late.

To request an extension, you must contact your Course Coordinator and supply the required documentation to negotiate an outcome.

10.4 Study help

In the first instance, you should contact your tutor, then the Course Coordinator. Additional assistance is provided to all students through Academic Skills Advisers. To book an appointment or find a drop-in session go to Student Hub.

Contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au

10.5 Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Administration of Central Examinations
- Deferred Examinations

10.6 General Enquiries

In person:
- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC South Bank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Moreton Bay** - Service Centre, Building A – Ground Floor, 1 Moreton Bay Parade, Petrie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **USC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au