



The University of Southern Queensland

## Course specification

This version produced 20 Dec 2007.

The current and official versions of the course specifications are available on the web at  
<<http://www.usq.edu.au/coursespecification/current>>.

Please consult the web for updates that may occur during the year.

### Description: Biodiversity and Conservation

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
REN	3301	66910	2, 2007	ONC	1.00	Toowoomba

<b>Academic group:</b>	FOSCI
<b>Academic org:</b>	FOS002
<b>Student contribution band:</b>	2
<b>ASCED code:</b>	050999

### STAFFING

Examiner: Andrew Le Brocque

Moderator: Martine Maron

### REQUISITES

Pre-requisite: BIO2208 or REN1201

### RATIONALE

The future management of the earth's natural resources and the conservation of organisms and biological systems requires up-to-date and reliable information and knowledge from a wide variety of disciplines. Biodiversity and Conservation are emerging areas of ecological science that take an interdisciplinary approach to the study of the processes involved, and problems associated with the maintenance of the diversity of species, habitats and ecological systems. The course provides an ecological perspective to the conservation of biodiversity and is of value to professional ecologists, field biologists, environmental scientists, environmental engineers and resource managers. The course is also of value to teachers and other educators, and those interested in careers in ecotourism.

### SYNOPSIS

THIS COURSE IS OFFERED IN ODD-NUMBERED YEARS ONLY. The course incorporates an interdisciplinary approach to the study of biodiversity and conservation, with a foundation in ecological theory and principles as a basis for the conservation and management of natural, production and disturbed systems. The concept of biodiversity as an ordered progression in biological complexity, from genes to ecosystems, is reviewed. The mechanisms behind the development of species, ecosystems and biodiversity are explored. The key threatening processes to biodiversity conservation are examined, with a focus on Australian ecosystems whenever feasible, and the processes and theories regarding the extinction of animals and plants are examined. The impact of humans on the earth's biodiversity and current issues in the conservation of biodiversity is also examined, in both global and regional settings. The scientific basis of species and habitat conservation and current practices and problems are also explored. This course may involve compulsory extended field excursions within the region.

## OBJECTIVES

On completion of this course students will be able to:

1. integrate the concept of biodiversity into their understanding of ecological systems and processes (Assignment, Project & Examination);
2. evaluate the various ways that biodiversity can be measured (Assignment & Examination);
3. assess and contrast the factors and threatening processes responsible for the extinction of organisms (Assignment, Project & Examination);
4. integrate the theoretical basis of conservation management into current practices and problems (Assignment, Project & Examination);
5. compare and contrast methods for the conservation of biodiversity (Project & Examination);
6. evaluate current and potential conservation problems in Australia (Assignment, Project & Examination);
7. integrate knowledge of biodiversity and conservation into their major study (Assignment, Project & Examination).

## TOPICS

	Description	Weighting (%)
1.	Biological Diversity and Conservation Science: Biodiversity Concept; Patterns in Biodiversity; Speciation and Extinction; Humans and Biodiversity.	30.00
2.	Ecological Processes in Conservation: Genes and Species; Conserving Populations; Habitats, Ecosystems and Landscapes; Conserving Ecosystems.	30.00
3.	Principles for Conservation: Conservation Management; Applying Conservation Management; Ecological Restoration; Sustainability and Conservation.	40.00

## TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at <http://bookshop.usq.edu.au> click 'Semester', then enter your 'Course Code' (no spaces).

Groom, MJ, Meffe, GK & Carroll, R 2005, *Principles of Conservation Biology*, 3rd edn, Sinauer Associates Inc.

## 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.

Burgman, MA & Lindenmayer, DB 1998, *Conservation Biology for the Australian Environment*, Surrey Beatty and Sons, Sydney.

Cox, GW 1997, *Conservation Biology: Concepts and Applications*,

Gaston, KJ and Spicer, JI 1998, *Biodiversity: An Introduction*, Blackwell Science, London.

Hunter, M & Gibbs, J 2007, *Fundamentals of Conservation Biology*, 3rd edn, Blackwell Publishing,

Jeffries, MJ 1997, *Biodiversity and Conservation*, Routledge, London.

Lunney, D 1991, *Conservation of Australia's Forest Fauna*, Surrey Beaty & Sons, Sydney.

MacDonald, D & Service, K 2006, *Key Topics in Conservation Biology*, Blackwell Publishing,

Primack 1993, *Essentials of Conservation Biology*, Sinauer Assoc,

Soule, M 1998, *Viable populations for conservation*, Cambridge University Press, Cambridge.

Spellerberg, IF 1996, *Conservation Biology*, Longman Group Limited, London.

Wilson, EO 1990, *Biodiversity*, National Academy Press, Washington, DC.

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Assignments	45.00
Examinations	2.00
Field Trips or Excursions	8.00
Lectures	26.00
Private Study	44.00
Tutorials	40.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg(%)	Due date
ASSIGNMENT	20.00	20.00	23 Jul 2007 (see note 1)
PROJECT	30.00	30.00	23 Jul 2007 (see note 2)
2HR CLOSED EXAMINATION	120.00	50.00	END S2 (see note 3)

### NOTES

1. Examiner to advise due date of assignment.
2. Examiner to advise due date of project.
3. Examination dates will be available during the Semester. Please refer to the examination timetable when published.

## 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 up to 20% 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 receiving a passing grade a student must achieve at least 50% of the total weighted marks available for the course.
  - 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 (grades) 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 next 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/corporateservices/calendar/part5.htm> or in the current USQ Handbook.

## **ASSESSMENT NOTES**

- 9 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 may be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to the USQ within 24 hours of receipt of a request to do so. 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. The Faculty will normally only accept assessments that have been written, typed or printed on paper-based media. The Faculty will NOT accept submission of assignments by facsimile. Students who do not have regular access to postal services or who are otherwise disadvantaged by these regulations may be given special consideration. They should contact the examiner of the course to negotiate such special arrangements. In the event that a due date for an assignment falls on a local public holiday in their area, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.
- 10 Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or to sit for an examination at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded IDS (Incomplete-Deferred Examination); IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).

## **OTHER REQUIREMENTS**

- 1 A Course Assignment Cover Sheet, signed by the student must be attached to all submitted assignments. Failure to do so may result in the assignment not being graded.
  - 2 Submitted written assignments must be word-processed and follow the assignment formatting requirements provided by the examiner.
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