



The University of Southern Queensland

## Course specification

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: Conservation for Sustainable Futures

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
REN	8202	90786	2, 2009	EXT	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: Joachim Ribbe

## RATIONALE

Sustainable management of the earth's natural resources and the conservation of organisms, habitats and ecosystems require knowledge of biodiversity, ecological systems and processes, conservation principles and the effects of human activities. This course provides an understanding of the fundamentals of ecological theory and practice, and an overview of human impacts on ecological systems and processes.

## SYNOPSIS

Ecology and conservation are closely related scientific disciplines that explore the very nature of life in terms of the distribution and abundance of organisms and interactions between organisms and their environment (ecology), and the diversity, scarcity and conservation of species, communities and ecosystems (conservation). This course provides a comprehensive survey of general ecological concepts and principles relevant to the sustainable management of the environment and an understanding of how ecological systems and processes have been impacted upon by human activities. The concept of biodiversity, mechanisms behind speciation and patterns in biodiversity, key threatening processes, and current issues in the conservation of biodiversity are examined. The course also examines concepts of pattern and processes in human-modified landscapes (including land transformation, habitat fragmentation, patch dynamics, conservation corridors and connectivity), implications for conservation and ecologically sustainable development.

## OBJECTIVES

On completion of this course students will be able to:

1. demonstrate an understanding of the nature of ecology and the scientific method within which it operates (Assignment 1, Assignment 2, Exam);
2. demonstrate an understanding the basic principles and underlying concepts of ecology and how these may apply to environmental and sustainable resource management (Assignment 1, Assignment 2, Exam);

3. demonstrate an understanding the nature and dynamics of ecological populations, communities and ecosystems (Assignment 1, Assignment 2, Exam);
4. evaluate the impacts of human activities on ecological systems and processes (Assignment 1, Assignment 2, Exam);
5. compare and evaluate the influence of major drivers of landscape pattern and change on ecological processes (Assignment 1, Assignment 2, Exam);
6. assess and contrast threatening processes to global biodiversity (Assignment 1, Assignment 2, Exam);
7. evaluate current and potential conservation problems in their region (Assignment 1, Assignment 2, Exam);
8. integrate knowledge of biodiversity and conservation into environmental and resource management (Assignment 1, Assignment 2, Exam);
9. critically analyse ecological information and data to provide informed decision-making in relation to resource management (Assignment 1, Assignment 2, Exam).

## TOPICS

Description	Weighting (%)
1. The Nature of Ecology, Biodiversity and Conservation Science	15.00
2. Species, Population and Biotic Interactions	20.00
3. Communities and Ecosystems	20.00
4. Biodiversity & Conservation	22.00
5. Landscapes, Connectivity and Fragmentation	23.00

## 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).

Krebs, CJ 2009, *Ecology: the experimental analysis of distribution and abundance*, 6th edn, Benjamin Cummings, San Francisco.

## 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.

Dodson SI, Allen TFH, Carpenter SR, Elliot K, Ives AR, Jeanne RL, Kitchel LJF, Langston NE, Turner M 1999, *Readings in ecology*, Oxford University Press, Oxford.

Groom, MJ, Meffe GK & Carroll, CR 2005, *Principles of conservation biology*, 3rd edn, Sinauer & Associates Inc, Sunderland, MA.

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

Miller, GT 2007, *Living in the environment: principles, connections and solutions*, 15th edn, Thomson Brooks/Cole, Pacific Grove, CA.

Turner, MG, Gardner, RH & O'Neill, RV 2001, *Landscape ecology in theory and practice: pattern and process*, Springer-Verlag, New York.

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Directed Study	80.00
Examinations	2.00
Private Study	84.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date
ASSIGNMENT 1 (LITERATURE REV)	50.00	15.00	21 Aug 2009 (see note 1)
ASSIGNMENT 2 (ESSAY)	100.00	40.00	09 Oct 2009 (see note 2)
2 HR RESTRICTED EXAMINATION	120.00	45.00	END S2 (see note 3)

### NOTES

1. Assignments 1 and 2 must be by electronic submission. Refer to your Introductory Book and course Website for correct labelling of electronic files and electronic submission details. Times and dates refer to Australian Eastern Standard Time (AEST).
2. Assignments 1 and 2 must be by electronic submission. Refer to your Introductory Book and course Website for correct labelling of electronic files and electronic submission details. Times and dates refer to Australian Eastern Standard Time (AEST).
3. Examination dates will be available during the Semester.

## IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:  
There are no attendance requirements for this course. However, it is the students' responsibility 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 assignments satisfactorily, students must obtain at least 50% of the marks available for each assignment. To complete the examination satisfactorily, students must obtain at least 50% of the marks available for the examination.
- 3 Penalties for late submission of required work:  
If students submit assignments after the due date without (prior) approval of the examiner then a penalty of 5% of the total marks gained by the student for the assignment may apply for each working day late up to ten working days at which time a mark of zero may be recorded. No assignments will be accepted after grades have been posted.
- 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 obtained for each of the summative assessment items in the course.
  - 6 Examination information:  
Candidates are allowed access only to specific materials during a Restricted Examination. The only materials that candidates may use in the restricted examination for this course are: writing materials (non-electronic and free from material which could give the student an unfair advantage in the examination). Students whose first language is not English, may, take an appropriate unmarked non-electronic translation dictionary (but not technical dictionary) into the examination. Dictionaries with any handwritten notes will not be permitted. Translation dictionaries will be subject to perusal and may be removed from the candidate's possession until appropriate disciplinary action is completed if found to contain material that could give the candidate an unfair advantage.
  - 7 Examination period when Deferred/Supplementary examinations will be held:  
Any Deferred or Supplementary examinations for this course will 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 via the electronic assignment submission environment (EASE) on the course website. 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. This must be produced within five days if required by the Examiner. 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).
- 11 Students must use the assignment template (.doc document) provided on the course Website for electronic submission of assignments. The templates include an assignment cover page and marking criteria and must be submitted in a Microsoft Office Word 2003 compatible format.
- 12 In accordance with Faculty of Sciences and USQ regulations, applications for extensions to assignment due dates must be made in writing to the Examiner before the due date. Applications must be accompanied by appropriate supporting information.