The University of Southern Queensland

Course specification

Description: Landscape Ecology						
Subject	Cat-nbr	Class	Term	Mode	Units	Campus
BIO	3319	45231	2, 2005	ONC	1.00	Toowoomba

Academic group: FOSCI
Academic org: FOS002
Student contribution band: 2
ASCED code: 010905

STAFFING

Examiner: Martine Maron
Moderator: Andrew Le Brocque

REQUISITES

Pre-requisite: BIO2208

RATIONALE

Landscape ecology is the study of spatial patterns in the environment, how they impact on ecological structures and processes and their implications for the management and conservation of biological systems. Knowledge of the spatial components of the environment is becoming increasingly important in assessing the impacts of human activities on the environment and in the development of more sustainable resource management practices. This course will provide students with an understanding of spatial processes in ecosystems and populations; the relationships between pattern, process and scale at the landscape level, and the modelling of spatial and temporal dynamics in biological systems. The course is of value to environmental scientists, engineers, field biologists, natural resource managers and professional ecologists.

SYNOPSIS

This course examines concepts of pattern and processes in landscape ecology (including land transformation, habitat fragmentation, patch dynamics, conservation corridors and connectivity), methods for monitoring and assessing landscape condition, and landscape implications for conservation reserve design and ecologically sustainable development in Australia. The course incorporates an interdisciplinary approach to the study of landscapes, with a foundation in ecological theory and spatial analysis as a basis for conservation planning and the management of natural, production and disturbed systems. This course may involve compulsory extended field excursions within the region. This course is offered in odd years only.

OBJECTIVES

On completion of this course students will be able to:

1. integrate the concept of landscape into their understanding of ecological systems and processes;
2. evaluate the contribution of spatial theory to ecological processes;
3. assess and contrast the factors and threatening processes responsible for the extinction of organisms at the landscape scale;
4. integrate the theoretical basis of landscape management into current conservation practices and problems;
5. compare and contrast methods for the monitoring of landscape condition;
6. evaluate current and potential conservation strategies in terms of reserve design in Australia;
7. integrate knowledge of landscape process and patterns into their major study.

TOPICS

	Description	Weighting (%)
1.	Concept & theory of landscape ecology	15.00
2.	Landscape mosaics	15.00
3.	Patterns, fragmentation and ecological processes	25.00
4.	Landscape assessment and monitoring	15.00
5.	Landscape management principles and tools	15.00
6.	Applied Landscape Ecology:- Australian case studies	15.00

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).

No prescribed 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.

Attiwill, P & Wilson, B 2003, *Ecology: An Australian Perspective*, Oxford University Press, South Melbourne.

Farina, A 1998, *Principles and Methods in Landscape Ecology*, Chapman and Hall,

Forman, RTT 1995, *Land Mosaics: The Ecology of Landscapes and Regions*, Cambridge University Press,

Liu, J & Taylor, WW 2002, *Integrating Landscape Ecology into Natural Resource Management*, Cambridge University Press,

Turner, MG, Gardner, RH & O'Neill, RV 2001, *Landscape Ecology in Theory and Practice: Pattern and Process*, Springer-Verlag, New York.

Turner, MG and Gardner, RH 1992, *Quantitative Methods in Landscape Ecology*, Springer-Verlag, New York.

STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Examinations	2.00
Field Trips or Excursions	16.00
Lectures or Seminars	26.00
Private Study	54.00
Report Writing	45.00
Tutorials	16.00

ASSESSMENT DETAILS

Description	Marks out of	Wtg(%)	Due date
ASSIGNMENT	20.00	20.00	19 Jul 2005 (see note 1)
PROJECT	35.00	35.00	19 Jul 2005 (see note 2)
2HR CLOSED EXAMINATION	45.00	45.00	END S2 (see note 3)

NOTES

1. Examiner to advise due date for 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 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. Students who do not qualify for a Passing grade may, at the discretion of the Examiner, be awarded a Supplementary Examination and/or assigned additional work to demonstrate to the Examiner that they have achieved the required standard. It is expected that such students will have gained at least 45 % of the total 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 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 must retain a copy of each item submitted for assessment. If requested 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, 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 facisimile. 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 Examintion); 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 assignments must be word-processed and follow the assignment formatting requirements provided.
