School of Biological Sciences

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

BIOL371 Evolutionary Ecology
General Course Information 2009

0.1167 EFTS 14 Points
First Semester (23rd February 2009 – 26th June 2009)

Description
Evolutionary ecology is the branch of ecology that considers how organisms have evolved to become adapted to their physical environment and their interactions with members of their own and other species; it examines the selective pressures imposed by the environment and the evolutionary response to these pressures. A theme unifying the course is adaptation within lineages and evolutionary mechanisms leading to the evolution of new species.

Objectives
The objectives of the course are:

- to develop a critical appreciation of current questions and approaches in evolutionary ecology
- to understand how evolutionary processes underpin ecological interactions
- to understand the roles of observational, experimental and comparative evidence in answering questions of evolutionary ecology

Timetable
Lectures: Monday, Tuesday 1:10pm-2:00pm in S6 (Science Lecture Theatres).

Tutorials: tutorials are in the second term only
All tutorials will be held in room 456 (Von Haast building) unless stated otherwise**.** Mondays 2:10–5:00pm (an alternative stream on Tuesdays 2:10–5:00pm will be added if numbers require it). In some weeks there are no tutorials (see timetable below) to allow you time for conference preparation. The tutorials are designed to give you experience in critical assessment of scientific papers, oral presentation and abstract writing.

Course information
Course information, including the list of tutorial streams, will be posted on the wall outside room 458 (Von Haast building) and on Blackboard.

Course Lecturers

Lecturers	Office	Phone extn	Email
Dr Hazel Chapman *	VH 458	7659	hazel.chapman@canterbury.ac.nz
Dr Marie Hale	VH 430	6739	marie.hale@canterbury.ac.nz
Prof Dave Kelly	VH 462	6782	dave.kelly@canterbury.ac.nz

VH= Von Haast Building. You can call the phone extensions from off campus by calling 3642 987 and then entering the extension number.
*Hazel Chapman is the **course co-ordinator** so contact her for any enquiries to do with the course

Assessment

Conference Abstract	15%
Conference presentation	5%
Final Exam	80%
Total	**100%**

Examination
Date & time will be announced by Registry after enrolment week

Textbooks
Recommended Text ***Evolutionary Analysis*** **by Scott Freeman and Jon Herron** 3rd or 4th ed. Available in the bookshop and in library QH 366.2 .F855. On reserve
Other useful texts include:
Mayhew P. (2006) *Discovering Evolutionary Ecology* On reserve
Stearns & Hoekstra (2005) *An Introduction to Evolution* QH 366.2 .S799 On reserve
Price P. (1996) *Biological Evolution* QH 366.2 .P946 On reserve
Futuyma D. (1998) *Evolutionary Biology* QH 366.2 .F996 On reserve
Additional references will be given during lectures. It is highly recommended that you read this extra literature. Evidence of extra reading will enhance your exam grades.

No	Date	Lec.	Lecture topic	Tute
1	Feb 23	HC	Introduction to evolutionary ecology	No Tutes first term
2	Feb 24	HC	Evolution and genetic adaptation	
3	Mar 2	HC	Evolution of life history traits	
4	Mar 3	HC	The evolution of adaptive phenotypic plasticity	
5	Mar 9	HC	Evolutionary transitions- genetic systems	
6	Mar 10	HC	Maintenance of sex	
7	Mar 16	HC	Social interactions and kin selection	
8	Mar 17	HC	Species interactions (1)	
9	Mar 23	HC	Species interactions (2)	
10	Mar 24	HC	Introduction to breeding systems	
11	Mar30	HC	Evolutionary consequences of breeding systems	
12	Mar31	HC	Speciation (1)	
			Mid-semester break	
13	April 27	HC	Speciation (2)	Introduction
14	April 28	MH	Mechanisms of evolution in metapopulations	
15	May 4	MH	Adaptation in metapopulations	Conference 1 prep
16	May 5	MH	Life history evolution in metapopulations	
17	May 11	MH	Metapopulations, evolution and conservation.	Conference 1 talks
18	May 12	DK	Macro-evolutionary patterns and stasis	
19	May 18	DK	Extinctions: long and short timescales	Conference 2 prep.
20	May 19	DK	Levels of selection: genes	
21	May 25	DK	Levels of selection: chromosomes, organelles	Conference 2 talks
22	May 26	DK	Levels of selection: cell types, genomes	
			Queens Birthday	
23	June 2	DK	Sociobiology: applications to human biology	

Note: By taking this course students agree that all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

RULES, REGULATIONS, AND WHAT TO DO WHEN THINGS GO WRONG

If in doubt:
ASK ! The course co-ordinator is happy to field questions at any time. All staff involved in the course are generally available for advice on specific issues.

What do I do if I'm sick?
If you feel that illness, injury, bereavement or other critical circumstances have prevented you from completing an item of assessment worth 10% or more of total course assessment or have affected your performance in a test or exam, you should complete an aegrotat application form, available from Student Records, 3rd floor, Registry or the Student Health and Counselling Service. You should also notify the course co-ordinator. For further details on aegrotat applications, please refer to the University's Enrolment Handbook 2009, p. 373, Aegrotat Consideration, or the University of Canterbury Calendar 2008, pp 80-81, Aegrotat Consideration). In exceptional circumstances (i.e. if the examiner cannot assess your aegrotat application because of lack of other evidence) you may be asked to sit a special assessment if you miss a final exam.

What do I do if I have to miss something?
In rare cases you may not be able to sit a test or exam because of involvement in representative sport or cultural groups. In such cases see the course co-ordinator, and a course of action (usually the sitting of an equivalent test or exam at a different time) will be arranged. This should be done well in advance of the set date for missed assignment.

Plagiarism
It is essential that you are aware that plagiarism is considered a very serious offence by the Academic community, the University and the School of Biological Sciences. Plagiarism is defined as taking passages from another work or author and presenting it as if it is your own work. Plagiarism includes:

- buying any form of assessed work e.g. essays, lab reports
- re-use of previous assignments
- copying of another student's work (with or without their consent)
- the unreferenced use of published material or material from the internet e.g. cutting and pasting of paragraphs or pages into an essay.

For most pieces of in-term assessment you will be given information concerning the use of direct and indirect quotes from previously published work. If you are in any doubt about appropriate use of published material, please speak with a member of academic staff.
All assignments must be accompanied by a cover sheet signed by you stating that the submitted work is not plagiarised. If you are still unsure what plagiarism is, then you must seek advice.

Where do I hand in assignments and then collect them once marked?
All assignments should be placed in the designated collection box in the foyer of the 4th floor of the School of Biological Sciences (near the Secretaries' Office), unless directed otherwise by the course co-ordinator. Make sure that you have attached your cover sheet to the front of your assignment. Cover sheets are available on top of the collection boxes, or you can download one from the Biology website (under Undergraduate).

Marked assignments can be collected from the Secretaries' Office between the hours 9.30-10.30am and 1.30-2.30pm, unless directed otherwise by the course co-ordinator.

What if I can't get it finished in time?
Reports and assignments should be handed in on time. Extensions may be granted if you have a valid reason. If you require an extension, you should request one from the course co-ordinator (or the lecturer responsible for marking the work), with as much notice as possible. Please do this BEFORE the deadline for the assignment.
If an extension has not been granted:

- work must be handed in by the due date to gain full credit
- work handed in up to 7 days after the deadline will be marked, but the marks will be discounted 25% before they are recorded to the student's credit
- any work handed in more than 7 days after the deadline date will not be marked, and will not earn credit.

What if I have written more than the word or page limit?
If there is a word limit on an assignment, it is usually there to stop you doing too much work and to encourage you to write succinctly. It also makes things easier to assess. You can be up to 10% over without too much worry, but if the length increases beyond that your mark may suffer due to failure to follow the requirements. If you find yourself way over the word limit have a chat to the lecturer concerned about how to trim your assignment to an acceptable length.

What if I fail part of the course?
Passing the course requires a satisfactory standard in both in-term assessments and exams. This means you must attend all class activities and submit all items of assessment unless you have a very good reason not to (e.g. medical reasons). A 'satisfactory performance' in in-term work can be defined as "making a reasonable attempt at all items of assessment, except where excused from an item on medical or other grounds by the course-co-ordinator". In other words, an honest attempt at all items should be handed in; handing in a page with only your name and the title of the assignment will not suffice. **As long as you comply with this requirement an overall grade of 50% is required to pass the course**. If you fail to complete all items of assessment you may fail the course. If you are worried about whether or not you are eligible to sit the final exam, please have a chat to the course co-ordinator.

What's the best way to give feedback?
We welcome constructive feedback at all times – help us to make this a valuable course for you. We endeavour to remain approachable at all times. If you would rather give feedback anonymously, please use the ERAU survey or talk to lab demonstrators, or your class rep. who will all report back to the staff-student liaison committee that includes a representative from each of the undergraduate classes. Class representatives will be selected from each class at the start of course.

What's the best way to complain?
If you feel you have not been fairly treated during this course, please raise the issue with the lecturer or course co-ordinator in the first instance. Other avenues include your class rep., who can raise issues anonymously, or the UCSA education coordinator.

SBS Grade Table

Passing grades:

A+	85% or above
A	80 – 84
A-	75 – 79
B+	70 – 74
B	65 – 69
B-	60 – 64
C+	55 – 59
C	50 – 54

Restricted pass:

C- for those close to a pass in first and second year papers only; you gain credit for the course but cannot continue into papers that require this course as a pre-requisite; for third year papers a C- will not be issued.

Failing grades

D	40-49
E	0 – 39