UNSW Course Outline

BIOS2011 Evolutionary and Physiological Ecology - 2024

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General Course Information

Course Code : BIOS2011
Year : 2024
Term : Term 1
Teaching Period : T1
Is a multi-term course? : No
Faculty : Faculty of Science
Academic Unit : School of Biological, Earth and Environmental Sciences
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

This course provides an introduction to the functional relationships between living organisms and the environments in which they live. There is an emphasis on interactions within and between populations, ecological energetics, ecophysiology, and the theory of evolution by natural

selection. In this, we cover a wide range of life forms from plants, animals, and microbes. This course also serves as an introduction to the process of scientific enquiry. This course is targeted toward individuals interested in learning more about ecology or evolution. Lectures are provided online and students will attend in-person practicals with high levels of hands-on experience with lab work and discussion.

Course Aims

The aims of this course are to:

1. Illustrate how organisms relate to and interact with their environment, including other organisms
2. consider the adaptive challenges that face individuals and the ways in which evolution by natural selection shapes species to meet those challenges
3. explore how biological processes result in the observable and measurable patterns that we see in the living world.
4. provide you with applied science skills in experimentation and writing.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Synthesize key ecological and evolutionary concepts.
CLO2 : Design, plan and conduct experiments in evolutionary ecology and communicate the conclusions drawn in written form.
CLO3 : Communicate the relevance, scope, importance, and usefulness of ecology and evolution to society.
CLO4 : Collaborate with team members to effectively work in teams
CLO5 : Explain the relevance of ecology and evolution to contemporary issues in society

Course Learning Outcomes	Assessment Item
CLO1 : Synthesize key ecological and evolutionary concepts.	• Science Communication Project • Lecture Tests
CLO2 : Design, plan and conduct experiments in evolutionary ecology and communicate the conclusions drawn in written form.	• Lab Work • Data Analysis Task
CLO3 : Communicate the relevance, scope, importance, and usefulness of ecology and evolution to society.	• Science Communication Project • Lab Work • Data Analysis Task
CLO4 : Collaborate with team members to effectively work in teams	• Lab Work • Data Analysis Task
CLO5 : Explain the relevance of ecology and evolution to contemporary issues in society	• Science Communication Project

Learning and Teaching Technologies

Moodle - Learning Management System

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Science Communication Project Assessment Format: Individual	15%	
Lab Work Assessment Format: Individual	40%	
Lecture Tests Assessment Format: Individual	30%	
Data Analysis Task Assessment Format: Group	15%	

Assessment Details

Science Communication Project

Assessment Overview

You will collaborate with team members to learn to read and communicate science papers effectively. Assessment will consist of reflections (~7%, due Week 3) and written reports (~8%, due Week 4) to assess your communication ability and understanding of the content. Each student will hand in their own assessment. Feedback at each stage will be given by demonstrators and course academics.

Course Learning Outcomes

- CLO1 : Synthesize key ecological and evolutionary concepts.
- CLO3 : Communicate the relevance, scope, importance, and usefulness of ecology and evolution to society.
- CLO5 : Explain the relevance of ecology and evolution to contemporary issues in society

Lab Work

Assessment Overview

You will conduct a lab experiment throughout the whole term. This will consist of designing and running an experiment, and collecting and analysing data. The task will be broken into writing an experimental design (5%), writing an introduction and methods (10%), and completing the final report (25%). The tasks are due in weeks 1, 7 and 10 and you will receive feedback after each stage within 2 weeks of submission. You should attend every scheduled practical class.

Course Learning Outcomes

- CLO2 : Design, plan and conduct experiments in evolutionary ecology and communicate the

conclusions drawn in written form.
- CLO3 : Communicate the relevance, scope, importance, and usefulness of ecology and evolution to society.
- CLO4 : Collaborate with team members to effectively work in teams

Lecture Tests

Assessment Overview

You will complete three tests to assess your understanding of the lecture content throughout the term (typically in weeks 3, 7 and 10). You will have a single attempt to complete each test. Questions types typically include short answer and multiple choice. You will receive feedback once the tests close

Course Learning Outcomes

- CLO1 : Synthesize key ecological and evolutionary concepts.

Data Analysis Task

Assessment Overview

You will work with a group to explore and interpret data that we have collected as a class. You will complete two short data analysis projects each worth 7.5% due in week 3 and 4. This is a group project where the group completes a single submission which can be completed during class time. Feedback (grades and written comments) will be given by demonstrators and academics after each stage of the project, within 10 working days of submission. This covers approximately 2 weeks of the course.

Course Learning Outcomes

- CLO2 : Design, plan and conduct experiments in evolutionary ecology and communicate the conclusions drawn in written form.
- CLO3 : Communicate the relevance, scope, importance, and usefulness of ecology and evolution to society.
- CLO4 : Collaborate with team members to effectively work in teams

General Assessment Information

Grading Basis

Standard

Course Schedule

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Michael Kasumovic					No	Yes
	Suhelen Egan					No	No

Other Useful Information

Academic Information

Upon your enrolment at UNSW, you share responsibility with us for maintaining a safe, harmonious and tolerant University environment.

You are required to:

- Comply with the University's conditions of enrolment.
- Act responsibly, ethically, safely and with integrity.
- Observe standards of equity and respect in dealing with every member of the UNSW community.
- Engage in lawful behaviour.
- Use and care for University resources in a responsible and appropriate manner.
- Maintain the University's reputation and good standing.

For more information, visit the UNSW Student Code of Conduct Website.

Academic Honesty and Plagarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.
Further information about referencing styles can be located at https://student.unsw.edu.au/referencing

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage. At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity, plagiarism and the use of AI in assessments can be located at:

- The Current Students site,
- The ELISE training site, and
- The Use of AI for assessments site.

The Student Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct

Submission of Assessment Tasks

Penalty for Late Submissions

UNSW has a standard late submission penalty of:

- 5% per day,
- for all assessments where a penalty applies,
- capped at five days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

Any variations to the above will be explicitly stated in the Course Outline for a given course or assessment task.

Students are expected to manage their time to meet deadlines and to request extensions as early as possible before the deadline.

Special Consideration

If circumstances prevent you from attending/completing an assessment task, you must officially apply for special consideration, usually within 3 days of the sitting date/due date. You can apply by logging onto myUNSW and following the link in the My Student Profile Tab. Medical documentation or other documentation explaining your absence must be submitted with your application. Once your application has been assessed, you will be contacted via your student email address to be advised of the official outcome and any actions that need to be taken from there. For more information about special consideration, please visit: https://student.unsw.edu.au/special-consideration

Important note: UNSW has a "fit to sit/submit" rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant

circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

Faculty-specific Information

Additional support for students

- The Current Students Gateway
- Student Support
- Academic Skills and Support
- Student Wellbeing, Health and Safety
- Equitable Learning Services
- UNSW IT Service Centre
- Science EDI Student Initiatives, Offerings and Guidelines