

# ENVL 2008 AUSTRALIAN ECOSYSTEMS: THREATS AND SOLUTIONS

**Credit Points** 10

**Coordinator** Kristine Crous ([https://directory.westernsydney.edu.au/search/name/Kristine Crous/](https://directory.westernsydney.edu.au/search/name/Kristine+Crous/))

**Description** Australian ecosystems are home to a unique and diverse set of plants and animals. This diversity underpins healthy functioning and resilience of our ecosystems, yet is under threat from habitat degradation, pollution, invasive species and climate change. In this subject you will be introduced to different Australian vegetation communities and explore interactions with soil, animals and climate. You will learn how environmental threats and disturbances affect Australian ecosystems and be introduced to the principles of ecosystem conservation and policy. Practicals include a mix of field- and lab-based activities to develop job-ready skills such as surveying and identifying ecological communities.

**School** Science

**Discipline** Environmental Studies

**Student Contribution Band** HECS Band 2 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 2 subject

## Learning Outcomes

1. Describe how Australian ecosystems are adapted to their current environment.
2. Explain how environmental threats and disturbances can affect ecosystem biodiversity and functioning.
3. Apply sampling techniques to draw inferences about the dynamics of Australian plant and animal communities.
4. Undertake primary ecosystem assessments tasks by using spreadsheets and statistical tools.
5. Describe the principles of conservation and associated indigenous aspects and policy tools.

## Subject Content

1. Evolution of Australian landscape and ecosystem communities and their interactions with climate, soils and animals.
2. Importance of vegetation communities and animals of Australia as the foundation of ecosystem function and biodiversity
3. Environmental disturbances and threatening processes to Australian ecosystems including bushfires, invasive species, introduced predators, pollution, habitat loss/degradation and climate change.
4. Responses of ecosystems to major disturbances in their environment.
5. Introduction to the principles of ecosystem conservation management relating to indigenous aspects and policy

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are

regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Portfolio	1500 words or equivalent	40	N	Individual	Y
Presentation	15 minutes	30	N	Group	Y
Poster	500 words or equivalent	30	N	Individual	Y

Prescribed Texts

- From assessing to conserving biodiversity : conceptual and practical challenges, E. Casetta ed. Springer, 2019 ISBN : 3030109909

Teaching Periods

**Spring (2025)**

**Hawkesbury**

**On-site**

**Subject Contact** Kristine Crous ([https://directory.westernsydney.edu.au/search/name/Kristine Crous/](https://directory.westernsydney.edu.au/search/name/Kristine+Crous/))

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=ENVL2008\\_25-SPR\\_HW\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENVL2008_25-SPR_HW_1#subjects))