

ENVL 1004 INTRODUCTION TO ENVIRONMENTAL SCIENCE

Credit Points 10

Legacy Code 301407

Coordinator Catriona Macdonald (<https://directory.westernsydney.edu.au/search/name/Catriona Macdonald/>)

Description Students learn how biology, chemistry and the physical sciences interact to regulate environmental processes in natural and built environments. They will evaluate concepts of sustainability and resilience and apply these perspectives to understand how human actions can alter the natural world. Students will use interdisciplinary approaches, including field studies, to investigate environmental processes and evaluate specific environmental challenges. Local and global environmental issues, sustainability, resilience and stewardship will be explored across diverse social and ecological contexts.

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/) page.

Level Undergraduate Level 1 subject

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Describe how biological and physical sciences interact to regulate fundamental environmental processes in natural and built environments.
2. Identify key concepts of sustainability and resilience from different perspectives, including Aboriginal and Torres Strait Islander views.
3. Explain how human actions can influence environmental sustainability.
4. Articulate the interdisciplinary approaches, as an individual and in a team, to understand environmental problems in diverse social and ecological contexts.
5. Effectively communicate the scientific principles underpinning environmental processes and the impact of management on sustainability.

Subject Content

1. Framework for a sustainable future, including science and the environment, economics, politics, and public policy.
2. Ecology: the science of organisms and their environment.
3. Human population and essential resources, including human population & development.
4. Water, hydrologic cycle and human use.
5. Soil: foundation for land ecosystems.
6. Production and distribution of food.
7. Pests and pest control.
8. Harnessing energy for human society.
9. Pollution and prevention.
10. Stewardship for a sustainable future.

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
Quiz	4 x 30 min	40	N	Individual	Y
Report	2 x 500 words	30	N	Individual	Y
Presentation	10-15 min	30	N	Individual	Y

Prescribed Texts

- Withgott, J., & Laposata, M. (2015). Environment : The science behind the stories (Fifth edition. Global ed.). Boston Pearson.

Teaching Periods

Spring (2025)

Hawkesbury

On-site

Subject Contact Elise Pendall (<https://directory.westernsydney.edu.au/search/name/Elise Pendall/>)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENVL1004_25-SPR_HW_1#subjects)