



# Course Outline (Higher Education)

<b>School:</b>	School of Science, Psychology and Sport
<b>Course Title:</b>	ENVIRONMENTAL STUDIES
<b>Course ID:</b>	SCENV1001
<b>Credit Points:</b>	15.00
<b>Prerequisite(s):</b>	Nil
<b>Co-requisite(s):</b>	Nil
<b>Exclusion(s):</b>	SCENV1502 and SCGEO1102
<b>ASCED:</b>	019999

## Description of the Course:

This course provides a broad introduction to the study of Earth's environment, emphasizing that our planets land, water, atmosphere, and living inhabitants are dynamically interconnected. Students will examine the theories associated with the formation of Earth and the origin of its minerals and rocks as well as explore some of the major physical mechanisms of the planet, including plate tectonics, volcanoes, atmospheric circulation, climate, weathering, erosion, and biogeochemical cycles. The course also considers the fossil record, evolution of life, and looks at the main biotic and abiotic factors that govern living ecosystems. The course provides fundamental knowledge for those undertaking a science program, but also serves as a suitable stand-alone course for those wishing to add an environmental component to their program.

**Grade Scheme:** Graded (HD, D, C, P, MF, F, XF)

**Placement Component:** No

**Supplementary Assessment:** Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

## Program Level:

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Learning Outcomes:**

Students undertaking this course are expected to be able to demonstrate the following knowledge and skills.

**Knowledge:**

- K1.** Describe the theories associated with the development of our Solar System and Earth.
- K2.** Recall common mineral and rock types, and relate to how, where, and when they form.
- K3.** Discuss the origins and effects of several physical mechanisms which govern the environment, such as plate tectonics, volcanoes, weathering, erosion, atmospheric circulation, climate change and biogeochemical cycles.
- K4.** Discuss the role of ecology in society and environmental management.
- K5.** Understand and describe the key ecological interactions governing populations and communities of plants and animals.
- K6.** Appreciate the key factors in speciation and extinction, including an appreciation of human evolution.
- K7.** Describe some of the key facets of Australia's long human history.

**Skills:**

- S1.** Classify common earth surface materials (i.e. rocks) and processes.
- S2.** Assess ecological data and information, and relate it to the form and function of ecosystems.

**Application of knowledge and skills:**

- A1.** Apply the basic vocabulary of modern physical geology and ecology.
- A2.** Describe and relate major themes and trends in environmental data sets.
- A3.** Engage and participate in informed debate about modern environmental issues.

**Course Content:**

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Topics may include:

- Origin of the universe. Rocks and minerals.
- Plate tectonics; Earthquakes and volcanoes.
- Weathering, soils and erosion.
- Atmospheric and ocean circulation.
- Climates and biogeography.
- Biogeochemical cycles. Energy-driven ecosystems.
- Population ecology.
- Community ecology.
- History of life.
- Challenges for tomorrow's world.

**Values:**

- V1.** Value the uniqueness and complexity of the earth system and the lengthy and intricate processes that formed them.
- V2.** Acknowledge the role and impact of humans on ecosystems.
- V3.** Appreciate the importance of environmental education in addressing modern-day problems.

**Graduate Attributes**

The Federation University FedUni graduate attributes (GA) are entrenched in the [Higher Education Graduate Attributes Policy](#) (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each program**

Graduate attribute and descriptor		Development and acquisition of GAs in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K3, K4, K5, K7, S1, S2, A2, A3	AT1, AT2, AT3
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	N/A	N/A
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	K4, K7, A2, A3	AT2, AT3
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	A1, A2, A3	AT2, AT3
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	N/A	N/A

**Learning Task and Assessment:**

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1, K2, K3	Online quizzes and/or quizzes to be taken in class	Quizzes	15-25%
K1, K2, K3, K4, S1, S2, A1, A2, A3	Participation; completion of activities, pre-tutorial tasks	Tutorial participation and activities	25-35%
K1-K7, S2	Final exam	Exam	40-55%

**Adopted Reference Style:**

Australian Harvard

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)