Unit Outline (Higher Education)

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

Description of the Unit:

This unit 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 unit also considers the fossil record, evolution of life, and looks at the main biotic and abiotic factors that govern living ecosystems. The unit provides fundamental knowledge for those undertaking a science program, but also serves as a suitable stand-alone unit for those wishing to add an environmental component to their program.

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

Work Experience:

No work experience: Student is not undertaking work experience in industry.

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment

Course Level:

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Introductory			✔			
Intermediate						
Advanced						

Learning Outcomes:

Students undertaking this unit 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.

Unit 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.

FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**ttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are be embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly assessed in each Course.*

FEDTASK attribute and descriptor		**Development and acquisition of FEDTASKS in the Unit**	
		Learning Outcomes (KSA)	**Assessment task (AT#)**
FEDTASK 1 Interpersonal	Students will demonstrate the ability to effectively communicate, inter-act and work with others both individually and in groups. Students will be required to display skills in-person and/or online in: • Using effective verbal and non-verbal communication • Listening for meaning and influencing via active listening • Showing empathy for others • Negotiating and demonstrating conflict resolution skills • Working respectfully in cross-cultural and diverse teams.	A3	AT2
FEDTASK 2 Leadership	Students will demonstrate the ability to apply professional skills and behaviours in leading others. Students will be required to display skills in: • Creating a collegial environment • Showing self -awareness and the ability to self-reflect • Inspiring and convincing others • Making informed decisions • Displaying initiative	Not applicable	AT2

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	**Assessment task (AT#)**
FEDTASK 3 Critical Thinking and Creativity	Students will demonstrate an ability to work in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: • Reflecting critically • Evaluating ideas, concepts and information • Considering alternative perspectives to refine ideas • Challenging conventional thinking to clarify concepts • Forming creative solutions in problem solving.	K3, K4, K5, K7, S1, S2, A2, A3	AT1, AT2, AT3
FEDTASK 4 Digital Literacy	Students will demonstrate the ability to work fluently across a range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: • Finding, evaluating, managing, curating, organising and sharing digital information • Collating, managing, accessing and using digital data securely • Receiving and responding to messages in a range of digital media • Contributing actively to digital teams and working groups • Participating in and benefiting from digital learning opportunities.	Not applicable	AT2, AT3
FEDTASK 5 Sustainable and Ethical Mindset	Students will demonstrate the ability to consider and assess the consequences and impact of ideas and actions in enacting ethical and sustainable decisions. Students will be required to display skills in: • Making informed judgments that consider the impact of devising solutions in global economic environmental and societal contexts • Committing to social responsibility as a professional and a citizen • Evaluating ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Embracing lifelong, life-wide and life-deep learning to be open to diverse others • Implementing required actions to foster sustainability in their professional and personal life.	K5, K6, K7, A3	AT1, AT2, AT3

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3	Online quizzes and/or quizzes to be taken in class	Quizzes	15-25%

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3, K4, S1, S2, A1, A2, A3	Participation; completion of activities, pre-tutorial tasks	Tutorial participation and activites	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