



Unit Outline (Higher Education)

Institute / School: Institute of Innovation, Science & Sustainability

Unit Title: PLANET EARTH

Unit ID: SCGEO1103

Credit Points: 15.00

Prerequisite(s): Nil

Co-requisite(s): Nil

Exclusion(s): Nil

ASCED: 010703

Description of the Unit:

This unit is presented at an introductory level. The main objective of this unit is to introduce the terminology and science of modern physical geology - the processes involved in creating and shaping the physical environment. It also introduces students to the skills and knowledge required for field-based geological study. In particular this unit provides an introduction to rock relationships and the basics for mapping.

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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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:

Successful completion of this unit will establish that students can:

Knowledge:

- K1.** Review that the Earth System includes many distinct layers and interacting realms.
- K2.** Discuss the relationships between the atomic structures of minerals and their chemical/physical properties, as well as their classification.
- K3.** Relate how rocks and minerals are described and identified and appreciate their use in interpreting geologic histories.
- K4.** Describe some key minerals of economic importance.
- K5.** Describe brittle and ductile crustal deformation behaviours and basic geologic structures.
- K6.** Discuss geologic time and explain the methods used to measure it.

Skills:

- S1.** Classify common minerals and rocks using their physical characteristics.
- S2.** Identify and measure geologic structures.
- S3.** Construct and interpret geologic maps, stratigraphic columns and cross sections.
- S4.** Derive simple geological histories.

Application of knowledge and skills:

- A1.** Interpret the dynamic nature of our planet and the factors which influence its composition, attitude and expression.
- A2.** Undertake geological mapping and map construction, as well as constructing geologic cross sections.
- A3.** Interpret geologic histories for specific locations from stratigraphic relationships and absolute age data.
- A4.** Identify a variety of rocks and minerals in hand specimen from locations around the world.

Unit Content:

Topics may include:

- Mineral identification and classification.
- Igneous, metamorphic, sedimentary rocks, and the rock-cycle.
- Map essentials: construction, interpretation, cross-sections, rock relationships and geological history.
- Geological time: absolute and relative time.
- Derivation of simple geological histories from geological maps.
- Rock deformation (folds, faults, fractures, and earthquakes).

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**tttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are 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	<p>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:</p> <ul style="list-style-type: none"> • 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. 	S3, S4	AT2
FEDTASK 2 Leadership	<p>Students will demonstrate the ability to apply professional skills and behaviours in leading others. Students will be required to display skills in:</p> <ul style="list-style-type: none"> • Creating a collegial environment • Showing self -awareness and the ability to self-reflect • Inspiring and convincing others • Making informed decisions • Displaying initiative 	Not applicable	Not applicable
FEDTASK 3 Critical Thinking and Creativity	<p>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:</p> <ul style="list-style-type: none"> • 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. 	S3, A1, A3	AT1, AT2

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 4 Digital Literacy	<p>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:</p> <ul style="list-style-type: none"> • 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	Not applicable
FEDTASK 5 Sustainable and Ethical Mindset	<p>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:</p> <ul style="list-style-type: none"> • 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. 	Not applicable	Not applicable

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1-K6, S1-S4, A1, A3, A4, V1	Participate in and engage with a range of practical learning activities.	Practical Exercises	40 - 60%
K1,K3, S1-S4, A1, A2, A3, V1, V2	Attend and actively participate in fieldwork excursion.	Field exercise	10-20%
K1-K6, S1-S4, A1, A3, V1, V2	Assess understanding of key concepts and principles from lectures, pracs and field excursion.	Test(s) / Examination(s)	40 - 60%

Adopted Reference Style:

APA

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

Fed Cite - [referencing tool](#)