



Course Outline (Higher Education)

School:	School of Science, Engineering and Information Technology
Course Title:	PLANET EARTH
Course ID:	SCGEO1103
Credit Points:	15.00
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	Nil
ASCED:	010703

Description of the Course :

This course is presented at an introductory level. The main objective of this course 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 course provides an introduction to rock relationships and the basics for mapping.

Grade Scheme: Graded (HD, D, C, etc.)

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 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:

Successful completion of this course 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.

Course 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).

Values:

- V1.** Appreciate the significance of mapping and interpretation of our three dimensional planet.
- V2.** Understand the significance of our dynamic changing planet.

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)	Code A. Direct B. Indirect N/A Not addressed	Assessment task (AT#)	Code A. Certain B. Likely C. Possible N/A Not likely
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, S1, S2, S3, S4, A2 and A3	A	1 and 2	A
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.	Not applicable	Not applicable	Not applicable	Not applicable
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.	K1 and K4	B	2	C
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.	S1	B	1 and 2	B
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.	Not applicable	Not applicable	Not applicable	Not applicable

Learning Task and Assessment:

Learning Outcomes Assessed	Learning 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:

Australian Harvard