

# Course Outline

<b>School / Portfolio:</b>	Faculty of Science and Technology
<b>Course Title:</b>	GEOPHYSICAL SYSTEMS AND THE ENVIRONMENT
<b>Course ID:</b>	ENVGC1011
<b>Credit Points:</b>	15
<b>Prerequisite(s):</b>	Nil
<b>Co-requisite(s):</b>	Nil
<b>Exclusion(s):</b>	Nil
<b>ASCED Code:</b>	010905

## Program Level:

	AQF Level of Program					
	5	6	7	8	9	10
Level						
Introductory			✓			
Intermediate						
Advanced						

## Learning Outcomes:

### Knowledge:

- K1.** Relate the origin of the universe to the physical composition of the earth.
- K2.** Define the basic terms used to describe geological and hydrological systems.
- K3.** Describe geological processes such as volcanism, mass movements, weathering, stratification and correlation.
- K4.** Discuss the physical processes involved in creating and shaping the physical environment; those changes in the environment over which humans have no control, and those which we are able to control and manage.

### Skills:

- S1.** Identify a range of representative rocks and minerals.
- S2.** Identify volcanic landforms.
- S3.** Critically appraise information relevant to resource management.

### Application of knowledge and skills:

- A1.** Critically comment on the existing management of environmental resources and propose an effective resource management plan.

## Course Content:

Topics may include:

- Origin of the Universe.

# Course Outline

## ENVGC1011 GEOPHYSICAL SYSTEMS AND THE ENVIRONMENT

- Rocks and Minerals.
- Stratigraphy and Correlation.
- Plate Tectonics and Earthquakes.
- Volcanism.
- Weathering, Soils and Erosion.
- Streams and Flooding.
- Mass Movements and Glaciation.
- Coastal Zones and Processes.
- Ground Water and Case Studies.
- Rock Mineral and Energy Resources.

### Values and Graduate Attributes:

#### Values:

- V1.** Appreciate various landforms and the geological processes that form them.
- V2.** Value physical resources and the limitations associated with their use.
- V3.** Recognise the value of energy production and the necessity for rehabilitation.

#### Graduate Attributes:

Attribute	Brief Description	Focus
Continuous Learning	Students will access and critically analyse a range of resources, including the media, peer reviewed research papers and reports.	Medium
Self Reliance	Students will be required to seek resources and manage time effectively in individual activities and in contributions to group work.	Medium
Engaged Citizenship	Students will become aware of the consequences and impacts of human activity on environmental resources.	Medium
Social Responsibility	Students will appreciate some of the ethical and economic factors that influence our approach to resource management.	Medium

### Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Task	Assessment Type	Weighting
K1, K2, K3, K4, S1, S2	A guided assignment which uses google earth to explore volcanic landforms.	Written assignment.	10-15%
K2, K3, K4, S3, A1	An investigation into the rehabilitation of a mining site.	Written report.	20-25%
K1, K2, K3, K4, S1, S2	Weekly quizzes.	On-line multiple choice quiz.	5-10%
K1, K2, K3, K4, S1, S2, S3	Exam (2 hours).	Examination.	60%

### Adopted Reference Style:

Australian