



Unit Outline (Higher Education)

Institute / School: Institute of Innovation, Science & Sustainability

Unit Title: FIELDWORK

Unit ID: SCGEO3104

Credit Points: 15.00

Prerequisite(s): (SCGEO2102)

Co-requisite(s): (SCGEO3102)

Exclusion(s): Nil

ASCED: 010703

Description of the Unit:

This unit provides students with the opportunity to further hone their geological mapping and interpretation skills in an area of complex geology. Students will also be given the opportunity to research an aspect of the geology in the area of interest and report to the group. This unit is typically conducted over an intensive period of 1-2 weeks in the field.

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: No

Supplementary assessment is not available to students who gain a fail in this Unit.

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

Learning Outcomes:

This advanced level field unit provides students with the opportunity to further hone their geological mapping and interpretation skills in complex geological terrains. On completing this unit, students will be able to:

Knowledge:

- K1.** Discuss the geology of a high grade, multiply deformed terrain.
- K2.** Explain the Metamorphic facies concept and isograd concept in a field context
- K3.** Describe the stratigraphy and a stratigraphic sequences of field areas
- K4.** Relate metamorphic petrology, petrography and metamorphic assemblages in a field setting

Skills:

- S1.** Interpret small scale outcrop structures and their relationship to regional geology
- S2.** Operate safely in a remote field environment
- S3.** Work effectively in small groups in isolated areas
- S4.** Construct high quality maps based of field observations
- S5.** Communicate complex geological concepts relating to field areas to a range of audiences

Application of knowledge and skills:

- A1.** Produce high quality maps based on theoretical knowledge and field mapping
- A2.** Interpret outcrop-scale geology and relate to regional understanding
- A3.** Synthesise geological understanding and apply to new and novel situations

Unit Content:

This unit integrates all relevant knowledge and skills attained in the geology program

Topics may include:

- Principles of geological fieldwork at an advanced level
- Outcrop observations, recording and interpretation
- Metamorphic mineral assemblages
- Isograd mapping
- Field recording of structural data
- Researching past work of a region
- Economic geology of significant Australian deposits
- Structural geology concepts applied to highly deformed regions of the Earth`s crust

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 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#)

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		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. 	K1-K4, S3, S5,	AT2, AT3, AT4
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 	S2, S3, S5,	AT3
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. 	K4, S1, S5, A3	AT3

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. 	S4, A1,	AT3
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. 	S2, S3	AT3

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K3	Week 5 short test on prescribed reading	Written test. Short answer and multiple choice	10%
K1, K3, A1, A3, S5	Prepare and present talk on prescribed topic related to the field areas	Presentation on prescribed topic	20-30%
K1-K4, S1-S5, A1-A3	Field notes, field map and prepared final map	Report and map submission	30-50%
K1, K4, S5, A1	Thin section preparations and petrographical reports.	Written reports	20-30%

Adopted Reference Style:

APA

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

Fed Cite - [referencing tool](#)