



Course Outline (Higher Education)

Institute:	Institute of Innovation, Science & Sustainability
Course Title:	MINE SURVEYING
Course ID:	ENGIN5511
Credit Points:	15.00
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	(ENMIN5021)
ASCED:	030303

Description of the Course:

This course qualifies participants to apply an advanced body of knowledge in the area of mine surveying and equips them with highly developed skills for research and enquiry. Students enrolled in this course will be able to apply the body of knowledge to a range of contexts within the mining industry enabling them to undertake professional or highly skilled work within the mining industry and allow them to undertake further study.

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 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"/>	<input type="checkbox"/>
Intermediate	<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:
Knowledge:

- K1.** Select survey instruments, techniques and computational methods in engineering surveying.
- K2.** Interpret the processes of engineering surveying.

Skills:

- S1.** Assess mine surveying and select appropriate equipment and methods.
- S2.** Select appropriate computation techniques to process survey data.
- S3.** Incorporate maps, plans and digital data required for the design and construction of mining projects.

Application of knowledge and skills:

- A1.** Plan mine surveys.
- A2.** Organize and complete a field survey.

Course Content:

Topics may include:

- Surveying instrumentation for the measurement of lengths; angles; differences in elevation.
- The survey techniques used in provision of survey control; engineering detail surveys; mine surveying; layout of complex mining projects.
- The management of the processes of engineering surveying.

Values:

- V1.** Recognise the role of engineering surveying in engineering projects.
- V2.** Recognise the characteristics of mine surveying.

Graduate Attributes

The Federation University Federation 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)	Assessment task (AT#)
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.	K1-2, S1-3, A1-2	AT1-2
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.	S1-3, A1-2	AT2

Graduate attribute and descriptor		Development and acquisition of GAs in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
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.	K1-2, S1-3, A1-2	AT1-2
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.	K1-2, S1-3, A1-2	AT1-2
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.	K1-2, S1-3, A1-2	AT2

Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-2, S1-3, A1	Numerical and conceptual tasks	Written assignments	50-70%
K1-2, S1-3, A1-2	Surveying fieldwork	Written survey report	30-50%

Adopted Reference Style:

Other (IEEE-Refer to the library website for more information)

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

Fed Cite - [referencing tool](#)