Unit Outline (Higher Education)

Institute / School: Institute of Innovation, Science & Sustainability

Unit Title: Mine Surveying

Unit ID: ENGRG4405

Credit Points: 15.00

Prerequisite(s): Nil

Co-requisite(s): Nil

Exclusion(s): (ENGIN5511)

ASCED: 030303

Description of the Unit:
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 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						
Intermediate				✔		
Advanced						

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.

Unit 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.

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment 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