

# Course Outline

**Title:** MINING RESEARCH PROJECT 1 RESEARCH METHODOLOGY

**Code:** ENMIN7091

**Faculty / Portfolio:** Faculty of Science and Technology

## Program Level:

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

**Pre-requisites:** Nil

**Co-requisites:** Nil

**Exclusions:** ENCOR 7010

**Credit Points:** 15

**ASCED Code:** 030303

## Learning Outcomes:

### Knowledge:

- K1.** Describe the characteristics of research problems and the evolution of research process
- K2.** Explain the various dimensions of critical thinking
- K3.** Describe the research principles and methods applicable in the field of mining engineering research
- K4.** Describe how effective communication can help transmit research ideas and explain concepts

### Skills:

- S1.** Research and collect information required for the implementation of a research project
- S2.** Develop practical and theoretical expertise in the project area
- S3.** Analyse and apply research design principles to the implementation of a project
- S4.** Present results in a logical and clear manner to others

### Application of knowledge and skills:

- A1.** Perform independent research and critical literature review
- A2.** Apply knowledge and skill learnt from previous courses into an independent research project
- A3.** Technical presentation to specialist and non-specialist audience
- A4.** Appreciate the need for adherence to deadlines for completion of work

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### Values and Graduate Attributes:

#### Values:

- V1. Realise the importance of research for mining engineering development
- V2. Enhancement of lifelong learning skills by the application of existing knowledge to the solution of new problems
- V3. Form an independent intellectual demeanour befitting a professional mining engineering graduate

#### Graduate Attributes:

Attribute	Brief Description	Focus
Continuous Learning	The course involves a substantial research element which will equip students with skills required for further learning.	High
Self Reliance	The course features theory based problem solving skills motivating self reliance and independence	High
Engaged Citizenship	The course highlights the importance of engaging with the stakeholder groups both within and external to a mine.	Medium
Social Responsibility	Corporate Social Responsibility is a critical element ensuring the mining industry's social licence to operate and is a focus within this course.	Medium

#### Content:

Topics may include:

- Selecting a topic for a research project
- Formulating the research question
- Literature survey: why? - what? - how?
- The research methodology
- Research proposal
- Data collection and processing
- The intellectual property

#### Assessment:

Learning Outcomes Assessed	Assessment Task	Assessment Type	Weighting
K4, S4, A3	Presentation	A presentation will be given on the topic selected: why - what needs to be done!	5% - 10%
S1 - S4, A2 - A4	Literature Survey	A document is to be submitted to reflect critically on the latest development in the field of the selected project	10%-20%
K1 - K4, S1- S4, A1 - A4	Submission	A research proposal will be submitted to convince the reader that the selected project is worth doing and describe the work being proposed and the research methodology.	70% - 85%

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## **Adopted Reference Style:**

APA

## **Presentation of Academic Work:**

[FedUni General Guide to Referencing](#)