



Faculty of Engineering

School of Minerals and Energy Resources Engineering

Postgraduate Course Outline

MINE8910

Mine Water and Waste Management

Dr Carlito Tabelin

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1. INFORMATION ABOUT THE COURSE

Course Code:	MINE8910	Semester:	T2B, 2020	Level:	PG	Units/Credits	6 UOC
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3. REFERENCE RESOURCES

There are no required textbooks for this course. The recommended references include:

[Mine Water: Hydrology, Pollution, Remediation](#), Paul L. Younger, S.A. Banwart, Robert S. Hedin (2002). This book is available to order through UNSW bookshop and it usually takes roughly 4 weeks to arrive from the supplier. After a ~10 % discount, the soft cover book will cost approximately \$200. Contact details: www.bookshop.unsw.edu.au

4. COURSE CONTENT AND LEARNING ACTIVITIES

4.1. Learning Activities Summary

Start Dates	Hours	Week	Activities	Module	Presenter
6 th July	8+	1 Overview of mine water & waste management	<p>Webinar 1 Overview, Key concepts & Leading Practices Mon 6th July, 5:00-7:00 pm Sydney time</p> <p>View videos, presentations, readings, commence assessments</p>	<p>Overview Key concepts drivers for mine water & waste management, regulatory requirements Leading practices & water accounting Waste rock & tailings fundamentals</p>	<p>CT CT</p> <p>WT</p> <p>SB</p>
13 th July	8+	2 Surface water	<p>Webinar 2 Tutorial for Mix Project, Mon 13th July 5:00 7:00 pm Sydney time</p> <p>View videos, presentations, readings, quiz, continue assessments</p>	<p>Surface water hydrology fundamentals Diversion of surface water Mine water management systems Water Balance (Case study)</p> <p>OPTIONAL</p> <p>Pipeline fundamentals & hydraulics</p>	<p>WT</p> <p>WT</p> <p>PB guest</p> <p>Cristal Mining</p> <p>WRL guest</p>
20 th July	8+	3 Groundwater	<p>View videos, presentations, readings, quiz, continue assessments</p>	<p>Groundwater fundamentals Dewatering & injection Water supplies, bores & pumps</p> <p>CASE STUDY managing high-pressure inflows underground</p> <p>OPTIONAL Permeability of jointed rocks*</p>	<p>WT</p> <p>WT WT</p> <p>Glencore guest</p> <p>MZ</p>

3rd
August

8+

**5 Tailings
& waste
rock**

View videos,
presentations,
readings, continue
assessments

Tailings treatment &
storage design
Tailings thickening &
dewatering*
Coal mining wastes

5. COURSE ASSESSMENT

5.1. Assessment Summary

All assessments are due

6.5. Assessment Criteria for Postgraduate Programs

The assessment criteria provide a framework for you to assess your own work before formally submitting major assignments to your facilitator. Your facilitator will be using this framework to assess your work and as a way to assess whether you have met the listed learning outcomes and the graduate attributes for your program. All students are encouraged to take a closer look at this framework before, during and after completing an assignment.

The descriptions in the framework will help you and your facilitator to identify where your assignment is ranked from excellent to poor achievement. We ask that you use the guidelines as a checklist, but as a tool

You can apply for special consideration through [UNSW Student Central](#) when illness or other circumstances interfere with your assessment performance. Sickness, misadventure or other circumstances beyond your control may:

- Prevent you from completing a course requirement,
- Keep you from attending an assessable activity,
- Stop you submitting assessable work for a course,