



**UNSW**

## UNSW Course Outline

# MINE3230 Mine Planning - 2024

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## General Course Information

**Course Code :** MINE3230

**Year :** 2024

**Term :** Term 2

**Teaching Period :** T2

**Is a multi-term course? :** No

**Faculty :** Faculty of Engineering

**Academic Unit :** School of Minerals & Energy Resources Engineering

**Delivery Mode :** In Person

**Delivery Format :** Standard

**Delivery Location :** Kensington

**Campus :** Sydney

**Study Level :** Undergraduate

**Units of Credit :** 6

### Useful Links

[Handbook Class Timetable](#)

## Course Details & Outcomes

### Course Description

Mine planning serves as a cornerstone in the education of Mining Engineers. Due to the multi-disciplinary nature of the mining industry, mine planning merges the technical aspects of mining engineering, mathematical techniques, and the economic, financial, and market aspects of the mining business to provide a comprehensive understanding of the techniques, variables, and

risks associated with the evaluation process mining projects that determine its bankable feasibility, from construction to be production.

MINE3230 integrates fundamental principles of mining engineering, encompassing geology, mining systems, design, optimisation, mineral processing, and financial evaluation, to foster the skills required for developing sustainable, feasible and safe mine plans. This course examines a comprehensive array of topics, including:

- Mining Systems and Mine Design
- Optimisation Techniques
- Mine Scheduling
- Mineral Economics
- Economic Evaluation
- Financial and risk assessment

MINE3230 provides the knowledge and practice needed for students to design, optimise and evaluate mining assets and operations to develop mine planning activities, including

- Assessing and determining the more suitable extraction and processing strategy from an economical and technical point of view
- Assessing different mitigation and optimisation strategies
- Maximising value added at all management levels and planning horizons
- Managing and optimising all resources, both geological and materials, and the associated risks of mining
- Supporting decisions across the entire value chain of the mining business
- Integrating all associated activities, supporting services, financial targets, technical restrictions and regulations

Through MINE3230, students acquire theoretical knowledge and engage in practical methodologies essential for mine planning, optimisation, and valuation, explicitly focusing on strategic, long-term planning. The course offers immersive learning experiences through two projects, simulating real-world mining environments, thereby equipping students with the knowledge and skills required for mine planning engineering roles within the industry.

## Course Aims

MINE3230 aims to provide the knowledge and practice needed for students to design, optimise and evaluate mining assets and operations to develop mine planning activities by integrating fundamental principles of mining engineering, encompassing geology, mining systems, design, optimisation, mineral processing, and financial evaluation. MINE 3230 aims to provide students with the knowledge and skills required for mine planning engineering roles within the industry and be able to develop sustainable, feasible and safe mine plans.

# Course Learning Outcomes

Course Learning Outcomes
CLO1 : Develop knowledge on mine planning processes and the impact of the economic environment on mining operations.
CLO2 : Recognise the integration of mine planning and all other components of the mine-to-port value chain.
CLO3 : Integrate the technical aspects of mining, financial and optimisation techniques and tools.
CLO4 : Evaluate the role of economics and finance in the mining business and effectively use it to develop financial and technical models to assess mine plans and determine the feasibility of mining projects.

Course Learning Outcomes	Assessment Item
CLO1 : Develop knowledge on mine planning processes and the impact of the economic environment on mining operations.	<ul style="list-style-type: none"><li>• Quiz</li><li>• Strategic Mine Planning Project Part A Manual Procedure</li><li>• Strategic Mine Planning Project Part B Software Assistance</li><li>• Final Examination</li></ul>
CLO2 : Recognise the integration of mine planning and all other components of the mine-to-port value chain.	<ul style="list-style-type: none"><li>• Quiz</li><li>• Strategic Mine Planning Project Part A Manual Procedure</li><li>• Strategic Mine Planning Project Part B Software Assistance</li><li>• Final Examination</li></ul>
CLO3 : Integrate the technical aspects of mining, financial and optimisation techniques and tools.	<ul style="list-style-type: none"><li>• Quiz</li><li>• Strategic Mine Planning Project Part A Manual Procedure</li><li>• Strategic Mine Planning Project Part B Software Assistance</li><li>• Final Examination</li></ul>
CLO4 : Evaluate the role of economics and finance in the mining business and effectively use it to develop financial and technical models to assess mine plans and determine the feasibility of mining projects.	<ul style="list-style-type: none"><li>• Final Examination</li></ul>

## Learning and Teaching Technologies

Moodle - Learning Management System | Mining Software

# Other Professional Outcomes

## Learning Outcomes

By the end of this course, you should be proficient in using mining methodologies, financial principles, and optimisation strategies to formulate robust and efficient mine plans. Additionally, you will gain insight into the intricate value chain of the mining industry, empowering you to identify areas for improvement and develop strategies to maximise business value. Upon completing this course, you should demonstrate competence in the technical, technological, and financial facets of mine planning and optimisation. Specifically, you should be able to:

- **Analyse Financial Dynamics:** You should be prepared to assess the role of finance within the mining sector. By employing financial tools, you should be able to construct models to evaluate the economic viability and risk exposure of mine plans, enabling informed decisions regarding project feasibility and funding.
- **Integrate Multi-disciplinary Elements:** Recognising the interdisciplinary nature of mining engineering, you should be able to accurately integrate various domains into the mine planning and optimisation process. This knowledge synthesis will enable a comprehensive understanding of the interconnectedness of diverse disciplines within the mining industry and how to integrate and use them to develop robust and efficient mine plans.
- **Address Technical and Operational Challenges:** You should be proficient in identifying and navigating the technical and operational constraints inherent in mine design and optimisation. Furthermore, you will be acquainted with various technological solutions and technical methodologies to overcome these challenges, ensuring the development of resilient and effective mine plans.

# Assessments

## Assessment Structure

Assessment Item	Weight	Relevant Dates
Quiz Assessment Format: Individual	20%	Start Date: 14/06/2024 04:00 PM Due Date: Not Applicable
Strategic Mine Planning Project Part A Manual Procedure Assessment Format: Group	20%	Start Date: 28/06/2024 04:00 PM Due Date: 12/07/2024 06:00 PM
Strategic Mine Planning Project Part B Software Assistance Assessment Format: Group	20%	Start Date: 12/07/2024 04:00 PM Due Date: 02/08/2024 11:59 PM
Final Examination Assessment Format: Individual	40%	

# Assessment Details

## Quiz

### Assessment Overview

This quiz will consist of 20 multiple choice questions to be completed within two hours. Questions will test a combination of theoretical knowledge and the application of this via questions that require you to perform calculations. This will be based on topics that are discussed and addressed in the first few weeks of the course in the lead up to the quiz.

### Course Learning Outcomes

- CLO1 : Develop knowledge on mine planning processes and the impact of the economic environment on mining operations.
- CLO2 : Recognise the integration of mine planning and all other components of the mine-to-port value chain.
- CLO3 : Integrate the technical aspects of mining, financial and optimisation techniques and tools.

### Assessment Length

1 hour

### Submission notes

In-class assessment (Quiz 2 19/07/2024 04:00 PM)

### Assessment information

The weight of each question will be determined based on the type and complexity of the question and will be noted on each one of the questions of the quiz. Each multiple selection or true or false question will be marked as correct (full mark) or incorrect (no mark). In the case of calculation questions, partial marks will be established based on the procedure and partial results obtained. Open questions might also be partially marked if they address the key points asked.

## Strategic Mine Planning Project Part A Manual Procedure

### Assessment Overview

This task requires you to work in groups of two to develop your ability to create value from an ore deposit by using the key levers for value creation as part of the strategic mine planning process.

### **Strategic Mine Planning Project Part A Manual Procedure (20%: 10% Group Work + 10% Individual Assessment)**

This part is based on a small-scale (hypothetical) ore body model and relevant economic/

technical parameters. Students should develop an economic valuation model and its respective economic evaluation (manually or using MS Excel), including: 1) mining method selection, 2) cut-off grade, processing and logistics strategists, 3) either ultimate pit limit or footprint, 4) production schedule, 5) Capex and Opex, 6) evaluation and recommendations. Students are required to work in groups/teams.

The total marking distribution of the assessment is as follows:

- Individual Component (10%) : Your knowledge of the contribution to the workgroup will be individually assessed in a 30-minute interview. In this interview, you should demonstrate your technical knowledge of mine planning by providing a clear insight into the work conducted and answering specific questions regarding the techniques and criteria used, results, and main conclusions.
- Groupwork (10%): A formal report and a softcopy of calculations should be submitted by your group for groupwork marking. The detailed marks distribution for each task will be provided as part of the project statement.

#### Course Learning Outcomes

- CLO1 : Develop knowledge on mine planning processes and the impact of the economic environment on mining operations.
- CLO2 : Recognise the integration of mine planning and all other components of the mine-to-port value chain.
- CLO3 : Integrate the technical aspects of mining, financial and optimisation techniques and tools.

#### Submission notes

Assignments to be submitted through Moodle

### **Strategic Mine Planning Project Part B Software Assistance**

#### Assessment Overview

This task requires you to work in groups to develop your ability to create value from an ore deposit by using the key levers for value creation as part of the strategic mine planning process.

This project will consist of an activity requiring Whittle 4X Software Package, in which you will be trained in this course.

#### **Strategic Mine Planning Project Part B Software Assistance (20%: 10% Group Work + 10% Individual Assessment)**

This part is based on a full-scale actual ore body block model and relevant economic/technical parameters. Assisted by mining software, students should generate an appropriate technical/economic model to determine: 1) the ultimate pit, 2) the eventual transition level between Open Pit and Underground operations, 3) the economic footprint (if it proceeds), and 4) the production and development schedule. Students should also include a detailed economic evaluation, including 1) economic valuation, 2) financial and technical model, 3) risk assessment, and 4)

recommendations.

The total marking distribution of the assessment is as follows:

- Individual Component (10%) : Your knowledge of the contribution to the workgroup will be individually assessed in a 30-minute interview. In this interview, you should demonstrate your technical knowledge of mine planning by providing a clear insight into the work conducted and answering specific questions regarding the techniques and criteria used, results, and main conclusions.
- Groupwork (10%): A formal report and a softcopy of calculations should be submitted by your group for groupwork marking. The detailed marks distribution for each task will be provided as part of the project statement.

#### **Course Learning Outcomes**

- CLO1 : Develop knowledge on mine planning processes and the impact of the economic environment on mining operations.
- CLO2 : Recognise the integration of mine planning and all other components of the mine-to-port value chain.
- CLO3 : Integrate the technical aspects of mining, financial and optimisation techniques and tools.

#### **Submission notes**

Assignments to be submitted through Moodle

## **Final Examination**

#### **Assessment Overview**

This will be a comprehensive two-hour exam on all topics addressed in this course throughout the term. Questions will assess your theoretical knowledge and the application of this on practical problem based questions that will require you to draw meaningful conclusions from calculations.

#### **Course Learning Outcomes**

- CLO1 : Develop knowledge on mine planning processes and the impact of the economic environment on mining operations.
- CLO2 : Recognise the integration of mine planning and all other components of the mine-to-port value chain.
- CLO3 : Integrate the technical aspects of mining, financial and optimisation techniques and tools.
- CLO4 : Evaluate the role of economics and finance in the mining business and effectively use it to develop financial and technical models to assess mine plans and determine the feasibility of mining projects.

# General Assessment Information

## Detailed Information on Assessment Tasks

### Quiz 1 (Q1) and Quiz 2 (Q2) - (10% each):

Tests constitute multiple choice, true-false, short-answer, and relatively short computations-based questions. The questions are derived from the theoretical background and computations discussed during lectures and demonstrations. Students must present computational steps, if necessary. Marks are deducted for missing steps or incomplete solutions. Parameters, variables, units, and applicable assumptions must be clearly defined in computations. The right answers, procedures and solutions of questions involving calculations will be published immediately after marking release.

**Mine Planning Projects (40%: 20% Group Work + 20% Individual Assessment) encompasses two assignments.**

### Assignment 1 (A1) - Manual Procedure (20%: 10% Group Work + 10% Individual Assessment)

This part is based on a small-scale (hypothetical) ore body model and relevant economic/technical parameters. Students should develop an economic valuation model and its respective economic evaluation (manually or using MS Excel), including 1) mining method selection, 2) cut-off grade, processing and logistics strategists, 3) either ultimate pit limit or footprint, 4) production schedule, 5) Capex and Opex, 6) evaluation and recommendations. Students are required to work in groups/teams.

The total marking distribution of the assessment is as follows:

- 10% (50% of the A1 marks): 30 min individual interview. During this interview, students should demonstrate their technical knowledge in mine planning by providing a clear insight into the work conducted, techniques used and why, results and main conclusions.
- 10% (50% of the A1 marks): A formal report and a softcopy of calculations weighing 50% of the Assignment mark (10%). The detailed marks distribution for each task will be provided as part of the project statement.

### Assignment 2 (A2) - Mining Software Assistance (20%: 10% Group Work + 10% Individual Assessment)

This part is based on a full-scale actual ore body block model and relevant economic/technical parameters. Assisted by mining software, students should generate an appropriate technical/

economic model to determine 1) the ultimate pit, 2) the eventual transition level between Open Pit and Underground operations, 3) the economic footprint (if it proceeds), and 4) the production and development schedule. Students should also include a detailed economic evaluation, including 1) economic valuation, 2) financial and technical model, 3) risk assessment, and 4) recommendations.

The total marking distribution of the assessment is as follows:

- 10% (50% of the A2 marks): 30 min individual interview. During this interview, students should demonstrate their technical knowledge in mine planning by providing a clear insight into the work conducted, techniques used and why, results and main conclusions.
- 10% (50% of the A2 marks): A formal report and a softcopy of calculations weighing 50% of the Assignment mark (10%). The detailed marks distribution for each task will be provided as part of the project statement.

**Group Composition:** Given the expected number of students and project requirements, the students are required to form a group of 3 to 4 members. Students are encouraged to form multicultural teams. Group formation must be completed with the submission of members' names and IDs by June 19 2024.

**Final Examination (40%):** The final Examination is comprehensive in nature, as it covers all topics (lectures and demonstrations). It constitutes major computations-based questions. However, it may include multiple-choice, true-false, short-answer, and/or relatively short computations-based questions. Details on the final exam structure will be provided as part of the unit review in Week 10. Students must present all computational steps, if necessary. Marks will be deducted for missing steps or incomplete solutions. Parameters, variables, units, and applicable assumptions must be clearly defined in computations. If required, formulae will be provided in the final Examination.

#### Grading Basis

Standard

#### Requirements to pass course

Attendance 80%, and

Final Mark: PS (An acceptable level of performance)

# Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 27 May - 2 June	Presentation	Course Introduction
	Seminar	Technical Concepts (Geology): Block Model, Geological Model, Resources Estimation, Mineral Resources and Ore Reserves Technical Concepts (Engineering): Mining Method Selection, Mine Planning, Dragline and Soft-Rock Mining
Week 2 : 3 June - 9 June	Seminar	Technical-Economic Strategies: Cut-off Grade and Eq. Ore Grade, Mining Infrastructure, Mineral Processing and Value Chain
Week 3 : 10 June - 16 June	Seminar	Optimisation I: Linear Programming (LP), Non-Lienar Programming (NLP), Genetic Algorithm (GA), Aritifical Neural Networks (ANN) Simulation: Montecarlo, Discrete Event Simulation
	Workshop	Linear Programming (LP)
	Assessment	Quiz 01
Week 4 : 17 June - 23 June	Seminar	Planning & Optimisation (Surface Mining): Floating Cone, Lerchs & Grossman, Mine Design & Scheduling
Week 5 : 24 June - 30 June	Seminar	Planning & Optimisation (Underground Mining): Economic Footprint and Stopes Optimisation, Mine Design & Scheduling
	Project	A2-Release
Week 6 : 1 July - 7 July	Other	Free Week (activities are optional) : Consultation
Week 7 : 8 July - 14 July	Seminar	Technology: Mining Technology and Mine Planning
	Assessment	Individual Interview - A2
	Laboratory	Software Whittle Training
	Project	A3-Release
Week 8 : 15 July - 21 July	Seminar	Optimisation II: Fleet Optimisation
	Assessment	Quiz 02
	Assessment	A2 – Due
Week 9 : 22 July - 28 July	Assessment	Individual Interview A3
	Seminar	Technical Services: Geomechanics, Ventilation, Survey and Geology
Week 10 : 29 July - 4 August	Seminar	Financial & Technical Model: Mineral Economics, Financial Modelling & Project Valuation Strategies
	Other	Course Review: Q&A
	Assessment	A3 - Due

## Attendance Requirements

80%

## General Schedule Information

Please note that lecture recordings are not available for this course.

## Course Resources

### Recommended Resources

#### Reference Material

- Camus, J P, 2002. Management of Mineral Resources Creating Value in the Mining Business,

- (Society for Mining, Metallurgy, and Exploration, Inc.: Littleton, CO, USA).
- Card, P, (2011) Guidelines for economic evaluation of projects, METPLANT 2011 - Metallurgical Plant Design and Operating Strategies, , pp. 1-11.
  - Darling, P, 2011. SME Mining Engineering Handbook, 3Edition, (Society for Mining, Metallurgy, and Exploration, Inc.: Littleton, CO, USA).
  - Dewhirst, R F and Knight Merz, S, 2013. Monograph 27 - Cost Estimation Handbook, 2Edition (The Australian Institute of Mining and Metallurgy: Australia).
  - Gordon, R.L., Tilton, J.E., 2008. Mineral economics: Overview of a discipline. Resour. Policy 33, 4-11.
  - Hall, B, 2014. Cut-off Grades and Optimising the Strategic Mine Plan, 300 p (The Australian Institute of Mining and Metallurgy: Australia).
  - Hustrulid, W A, and Kuchta, M, 2006. , Volume 1 - Fundamentals, Edition (Taylor and Francis: London).
  - InfoMine, 2015. Industry Standard for Mining Cost Estimating [online], Available from: < <http://>
  - Lane, K F, 1988. The Economic Definition of Ore - Cut-Off Grades in Theory and Practice, (Mining Journal Books Limited, London).
  - Pindyck, R.S., Rubinfeld, D.L., 2009. Microeconomics. Pearson/Prentice Hall.
  - Rendu, J M, 2014. Introduction to Cut-off Grade Estimation, Edition, (Society for Mining, Metallurgy, and Exploration, Inc.: Littleton, CO, USA).
  - Rudenno, V, 2004. The Mining Valuation Handbook - Australian Mining and Energy Valuation for Investors and management, 430 p (Wright Books: Victoria).
  - Runge, I C, 1998. Mining Economics and Strategy, (Society for Mining, Metallurgy, and Exploration, Inc.: Littleton, CO, USA).
  - US Federal Reserve. FRB: H.10 Release--Foreign Exchange Rates--Nominal/Real Indexes [online] Available from: < <https://www.federalreserve.gov/releases/h10/summary/indexbm.htm>>
  - World Bank, Global Economic Monitor (GEM) Commodities| World DataBank [on-line].

## Other Resources

Selected readings as well as other supporting material (e.g. course outline and lecture notes will be made available on LMS. Videos are often provided to students as a webstream within the Moodle learning management system. Videos are not available for download by students, unless approved by the Course Convenor and either the Undergraduate or Postgraduate Coursework Director. Special consideration can be provided for students to access videos off-line (e.g. working remotely). Please contact the Course Convenor for more information. Note that UNSW reserves the right to deliver videos as a webstream rather than off-line and cannot provide videos that are copyright by other providers.

## On-line Resources

There are numerous articles/information sources on reservoir engineering on the web. Many of

them are sound, but many are either very lightweight or contain errors. Be very careful in your choice of web sources. Remember, UNSW librarians are usually happy to help you locate articles or make suggestions regarding possible material to help you in your academic work. You can also access basic on-line help at <http://www.library.unsw.edu.au/>

## Software and Hardware

- GEOVIA Whittle 4.6 [or latest released version available]
- Maptek Vulcan [latest released version available]]
- Microsoft Excel - Solver

## Course Evaluation and Development

### Course Results

For details on UNSW assessment policy, please visit: [www.student.unsw.edu.au/assessment](http://www.student.unsw.edu.au/assessment)

In some instances, your final course result may be withheld and not released on the UNSW planned date. This is indicated by a course grade result of either:

- WD - which usually indicates you have not completed one or more items of assessment or there is an issue with one or more assignment; or
- WC - which indicates you have applied for Special Consideration due to illness or misadventure and the course results have not been finalised.

In either event it would be your responsibility to contact the Course Convener as soon as practicable but no later than five (5) days after release of the course result. If you don't contact the convener on time, you may be required to re-submit an assignment or re-sit the final exam and may result in you failing the course. You would also have a NC (course not completed) mark on your transcript and would need to re-enrol in the course.

## Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Lecturer	Adj. Associate Professor Carlos Tapia			+61 2 9385 5006		No	No
Convenor	Professor Serkan Saydam		Room 159	+61 2 9385 4525		No	Yes

# Other Useful Information

## Academic Information

### I. Special consideration and supplementary assessment

If you have experienced an illness or misadventure beyond your control that will interfere with your assessment performance, you are eligible to apply for Special Consideration prior to, or within 3 working days of, submitting an assessment or sitting an exam.

Please note that UNSW has a Fit to Sit rule, which means that if you sit an exam, you are declaring yourself fit enough to do so and cannot later apply for Special Consideration.

For details of applying for Special Consideration and conditions for the award of supplementary assessment, please see the information on UNSW's [Special Consideration page](#).

### II. Administrative matters and links

All students are expected to read and be familiar with UNSW guidelines and polices. In particular, students should be familiar with the following:

- [Attendance](#)
- [UNSW Email Address](#)
- [Special Consideration](#)
- [Exams](#)
- [Approved Calculators](#)
- [Academic Honesty and Plagiarism](#)
- [Equitable Learning Services](#)

### III. Equity and diversity

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course convener prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equitable Learning Services. Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.

### IV. Professional Outcomes and Program Design

Students are able to review the relevant professional outcomes and program designs for their streams by going to the following link: <https://www.unsw.edu.au/engineering/student-life/student-resources/program-design>.

*Note: This course outline sets out the description of classes at the date the Course Outline is published. The nature of classes may change during the Term after the Course Outline is published. Moodle or your primary learning management system (LMS) should be consulted for the up-to-date class descriptions. If there is any inconsistency in the description of activities between the University timetable and the Course Outline/Moodle/LMS, the description in the Course Outline/Moodle/LMS applies.*

## Academic Honesty and Plagiarism

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW students have a responsibility to adhere to this principle of academic integrity. Plagiarism undermines academic integrity and is not tolerated at UNSW. *Plagiarism at UNSW is defined as using the words or ideas of others and passing them off as your own.*

Plagiarism is a type of intellectual theft. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. UNSW has produced a website with a wealth of resources to support students to understand and avoid plagiarism, visit: <student.unsw.edu.au/plagiarism>. The Learning Centre assists students with understanding academic integrity and how not to plagiarise. They also hold workshops and can help students one-on-one.

You are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and the proper referencing of sources in preparing all assessment tasks.

Repeated plagiarism (even in first year), plagiarism after first year, or serious instances, may also be investigated under the Student Misconduct Procedures. The penalties under the procedures can include a reduction in marks, failing a course or for the most serious matters (like plagiarism in an honours thesis or contract cheating) even suspension from the university. The Student Misconduct Procedures are available here:

[www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf](http://www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf)

## Submission of Assessment Tasks

Work submitted late without an approved extension by the course coordinator or delegated authority is subject to a late penalty of five percent (5%) of the maximum mark possible for that assessment item, per calendar day.

The late penalty is applied per calendar day (including weekends and public holidays) that the assessment is overdue. There is no pro-rata of the late penalty for submissions made part way through a day. This is for all assessments where a penalty applies.

Work submitted after five days (120 hours) will not be accepted and a mark of zero will be awarded for that assessment item.

For some assessment items, a late penalty may not be appropriate. These will be clearly indicated in the course outline, and such assessments will receive a mark of zero if not completed by the specified date. Examples include:

- Weekly online tests or laboratory work worth a small proportion of the subject mark;
- Exams, peer feedback and team evaluation surveys;
- Online quizzes where answers are released to students on completion;
- Professional assessment tasks, where the intention is to create an authentic assessment that has an absolute submission date; and,
- Pass/Fail assessment tasks.

### Faculty-specific Information

[Engineering Student Support Services](#) – The Nucleus - enrolment, progression checks, clash requests, course issues or program-related queries

[Engineering Industrial Training](#) – Industrial training questions

[UNSW Study Abroad](#) – study abroad student enquiries (for inbound students)

[UNSW Exchange](#) – student exchange enquiries (for inbound students)

[UNSW Future Students](#) – potential student enquiries e.g. admissions, fees, programs, credit transfer

### Phone

(+61 2) 9385 8500 – Nucleus Student Hub

(+61 2) 9385 7661 – Engineering Industrial Training

(+61 2) 9385 3179 – UNSW Study Abroad and UNSW Exchange (for inbound students)

## School-specific Information

### Course completion

Course completion requires submission of all assessment items. Failure to submit all assessment items may result in the award of an Unsatisfactory Failure (UF) grade for the Course unless special consideration has been submitted and approved.

### Submission of Assessment Tasks

We encourage you to retain a copy of every assignment submitted for your own record, either in hardcopy or electronic form. All assessments must have an assessment cover sheet attached (if required).

### Student Resources

The School has [student resources](#) section, containing useful advice and information to ensure you're able to focus on your studies.

### Computing Resources and Internet Access Requirements

UNSW Minerals and Energy Resources Engineering provides blended learning using the online Moodle LMS (Learning Management System). Also see - Transitioning to Online Learning: [www.covid19studyonline.unsw.edu.au](http://www.covid19studyonline.unsw.edu.au)

Note that some specialist engineering software is not available for Mac computers.

- Mining Engineering Students: OMB G48
- Petroleum Engineering Students: TETB LG34 & LG35

For more information about system requirements is available at [www.student.unsw.edu.au/moodle-system-requirements](http://www.student.unsw.edu.au/moodle-system-requirements)

### Accessing Course Materials Through Moodle

Course outlines, support materials are uploaded to Moodle, the university standard Learning Management System (LMS). In addition, on-line assignment submissions are made using the assignment dropbox facility provided in Moodle. All enrolled students are automatically included in Moodle for each course. To access these documents and other course resources, please visit: [www.moodle.telt.unsw.edu.au](http://www.moodle.telt.unsw.edu.au)

## School Contact Information

School of Minerals and Energy Resources Engineering  
Old Main Building, Level 1, 159 (K15)  
UNSW SYDNEY NSW 2052 AUSTRALIA

For current students, all enquiries and assistance relating to enrolment, class registration, progression checks and other administrative matters, please see [The Nucleus: Student Hub](#).

### Web & Important Links:

[School of Minerals and Energy Resources](#)

[The Nucleus Student Hub](#)

[Moodle](#)

[UNSW Handbook](#)

[UNSW Timetable](#)

[Student Wellbeing](#)

[Urgent Mental Health & Support](#)

[Equitable Learning Services](#)