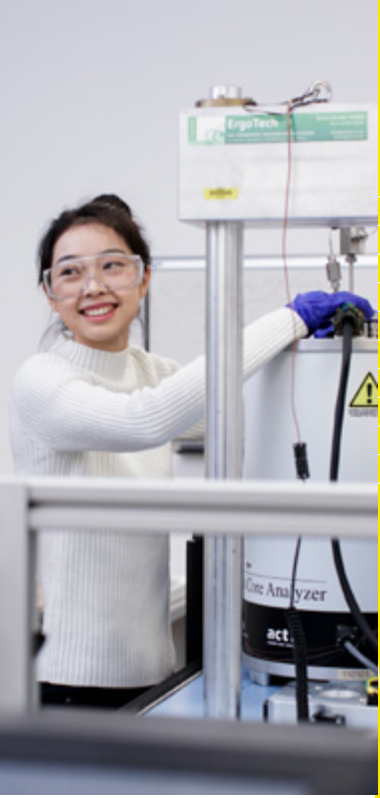

UNSW SYDNEY

Mining

Invent the future.

UNSW Minerals and Energy Resources Engineering

- UNSW Minerals and Energy Resources is ranked 3rd in the world (2021 QS World University Rankings)
- We have close links with key professional, commercial and industrial organisations.
- Our state-of-the-art facilities include a world class virtual reality theatre.
- Students are exposed to latest trends in digitalisation and automation in mining including drones and smart sensors.
- We have 73 years of research, development, and education.

Faculty facts

WORLD RENOWNED

UNSW Sydney is ranked 43rd in the world, in the QS World University Rankings for 2021.

CAMPUS INVESTMENT

UNSW Sydney has invested $1.2 billion in improving and adding to its student facilities.

MOST EMPLOYABLE STUDENTS

UNSW has the highest number of students in Australia's top 100 most employable list, in the AFR Top 100 Future Leaders Award, 2020.

The top engineering faculty in Australia*

*2020 QS World University rankings

UNSW Engineering is ranked 1st in Australia*

*2020 QS Rankings by Subject 2020.

Undergraduate engineering scholarships are available each year

Student exchange opportunites are available for over 200 universities around the world

What do mining engineers do?

Mining Engineering is about the extraction of natural minerals from the earth and processing them with minimal environmental impact. The focus is on environmentally responsible recovery, processing, marketing and financial management of mineral resources.

A solid foundation of fundamental engineering principles and their intelligent application to complex mining systems play a large role in this career. Modern mining engineers embrace technical skills in areas such as geomechanics, mine design, automation, data analytics, ventilation, and protection of our environments.

Career opportunities

Pursue a career that meets the global need for minerals. You can work in areas such as drilling, project management, sustainability, quarry and tunnelling, community relations and management consulting in mining companies, investment firms, finance, banking, and government organisations.

Bachelor of Engineering (Honours) in Mining Engineering

UAC Code: 425300
Duration: 4 years
Entry in Terms 1, 2, or 3

What will your study involve?

This degree provides a comprehensive understanding of how complex mining systems work together to service the global need for minerals. It gives students a solid grounding in fundamental engineering principles and the essential elements of mining. This includes geomechanics, ventilation, mine planning and evaluation, mineral processing, and data analytics.

Assumed knowledge

HSC Mathematics Extension 1 and Physics

Bridging courses

Do you want to hit the ground running in your first year but are worried your maths and physics need some attention? Then you should investigate attending UNSW's bridging courses, hosted by the faculty of Science.
science.unsw.edu.au/bridging

Industrial experience

In order to ensure you finish your degree work ready, we make it a compulsory part of the degree to complete at least 60 days of approved industrial training. Students can do this in Australia or overseas, and many students are offered jobs as a result of their experience. The school also hosts many industry nights and networking events to help connect students with employers.

Professional recognition

Your Bachelor of Engineering (Honours) degree is recognised globally, is accredited with Engineers Australia, and is also acknowledged by the Washington Accord.

Faculty of Engineering Admissions Scheme:

unsw.to/feas

Sample degree outline

YEAR 1

TERM 1	TERM 2	TERM 3
Engineering Design and Innovation	Mathematics 1B	Engineering Mechanics
Mathematics 1A	Physics 1A	Investigating Earth
L1 Elective	Computing for Engineers	

YEAR 2

TERM 1	TERM 2	TERM 3
Fluid and Particle Mechanics	Mineral Resource Geology & Geophysics	Minerals and Processing
Mechanics of Solids	L1 Elective	Design project
Numerical Methods and Statistics		Engineering Mathematics

YEAR 3

TERM 1	TERM 2	TERM 3
Resource Estimation	Mine Planning	Mine Ventilation
Mining Geomechanics	Socio-Environmental Aspects of Mining	Rock Breakage
Mining Systems		Discipline Elective

YEAR 4

TERM 1	TERM 2	TERM 3
Mine Geotechnical Engineering	Mine Design and Feasibility Project	Mine Management
Thesis A	Thesis B	Thesis C
General Education	Discipline Elective	General Education

This is a sample degree outline only and may be subject to change.

Enrich your studies through our diverse and inclusive student community. Our clubs and societies bring students together for professional development programs and networking opportunities, including MERESoc, our dedicated club for mining students. Receive additional support through our Women in Engineering (WIE) community.

Other degrees

DEGREE	YEARS	UAC CODE
Bachelor of Engineering (Hons) Mining Engineering/Bachelor of Engineering Science in Civil Engineering Direct application available via UAC uac.edu.au	5	425401

How to apply

Australian and New Zealand students:
Direct entry via UAC
uac.edu.au

International students in Australia:
Apply via UAC International
uac.edu.au/international

International students not in Australia:
Apply online via UNSW
international.unsw.edu.au

“I chose Mining Engineering because I love the outdoors, travelling and being active. Here, I can combine my love of the outdoors with problem-solving, innovation, creativity and my interest in geology. I’d like to share my passion for mining with people from all walks of life.”

Annette Au
Mining Engineering (Honours)

Contact us

Future Students Office
Call 1300 UNI NSW
(1300 864 679)
Ask a question
unsw.edu.au/ask

Engage with us

UNSW Engineering

@UNSWEngineering

@unswsydney

UNSW

Faculty of Engineering Admissions Scheme:

unsw.to/feas

CRICOS Provider Code: 00098G | ABN: 57 195 873 179