

Course Suggestions for Graduate Students in Mining Engineering

General:

Graduate students can take a maximum of 6 credits of 300 and 400 level courses for credit towards degree.

Masters: 60% is the passing grade in every course. There is a limit of 6 credits with grades between 60 and 67%. More than 6 credits and you will need to retake the course and achieve at least 74%.

PHD: 68% is the passing grade in every course. Below 68% is considered a fail. For failed courses the student must retake the same course (or a course approved by grad advisor) and achieve at least 74%.

The policies for Academic Progress are outlined on this page:

<https://www.grad.ubc.ca/faculty-staff/policies-procedures/academic-progress-grading-practices>

All students should be familiar with the policy.

You cannot TA for a course which you are taking

MASc students

Required Courses:

Courses selected in consultation with your supervisor	16 credits
MINE 599C – MASc Thesis	12 credits
MINE 598** – Graduate Student Seminar	<u>2 credits</u>
	30 credits

PhD Students

Required Courses:

MINE 698- Graduate Student Seminar	2 credits
MINE 699- Doctoral Dissertation	
Courses required by your supervisory committee	

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Mineral Processing:

- MINE 331/590F – Physical Mineral Processes (3) T1
- MINE 447 – Dewatering of Fine Tailing (3) not offered 2024W
- MINE 520 – Advanced Coal Preparation (3) T1
- MINE 465/590Y – Materials Handling (3) T1
- MINE 333/521 – Flotation (3) T2
- MINE 455/590X – Advanced Mine Water Management (3) T2
- MINE 432 – Industrial Expert Systems (3) T1
- MINE 522 – Processing of Mineral Fines (4) T1
- MINE 547- Industrial Expert Systems- Data Science for Mining. (3) T1

Mine Economics and Finance

- MINE 396 – Engineering Economics (3) T1
- APSC 541 – Technology Entrepreneurship* (3) T2
- MINE 406/554 – Mine Project Valuation and Risk Assessment (3) T2
- MINE 555 – Mining and Society (3)not offered 2024W
- MINE 404/590E – Strategic Issues in Mining (3) T2

**APSC 541 requires separate application <http://blogs.ubc.ca/baen506apsc541techentrepreneurship/>

Mining/ Mining Geotechnics:

- MINE 310/590C – Advanced Surface Mining & Design (3)T1
- Rock Mechanics Course (one of the following) (3)T1or T2
 - MINE 303/590M – Rock Mechanics Fundamentals (3)T2
 - MINE 403/505- Rock Mechanics Design (prereq: intro to rock mech) (3) T2
- MINE 420/552 – Mining Geostatistics (3) T2
- MINE 302/506 – Advanced UG Mine Design (3)T2
- MINE 485/507 – Block Caving Systems- Design & Planning (3) T2
- MINE 402/509 – Mine Ventilation (3) T1
- MINE 432 – Industrial Expert Systems (3)T1
- MINE 465/590Y – Materials Handling (3) T1
- MINE 547- Industrial Expert Systems- Data Science for Mining (3) T1

Mining Environment and Sustainability:

- MINE 447 – Dewatering of Fine Tailings (3) not offered 2024W
- MINE 470/559 – Indigenous Peoples and Mining in Canada (3) T1
- MINE 555 – Mining and Society (3) not offered 2024W
- MINE 455/590X – Advanced Mine Water Management (3) T2
- MINE 380/590Q – Advanced Mine Waste Management (3) T2
- MINE 581 – Safety of Tailings Storage Facilities (3) T1
- MINE 585 – Risk Management of Tailings Storage Facilities (3) T2
- MINE 444 – Urban Mining Recovering Value from E-waste (3) T2

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Mine Waste Management:

- MINE 447 - Dewatering of Fine Tailings (3) not offered 2024W
- MINE 581 - Safety of Tailings Storage Facilities (3) T1
- MINE 380/ 590Q- Advanced Mine Waste Management (3) T2
- CIVL 418 - Engineering Hydrology (3) T1
- MINE 444 - Urban Mining: Recovering Value From E-waste (3) T2
- MINE 555 - Mining and Society (3) not offered 2024W
- MINE 585 - Risk Management of Tailings Storage Facilities (3) T2
- MINE 455/590X- Advanced Mine Water Management (3) T2

The following are offered by other departments. You will need your supervisor's permission and the instructor's permission to enroll:

- CIVL 413 - Design of Earth Dams and Containment Structures (3) T2
- CIVL 570 - Advanced Soil Mechanics (3) T1
- CIVL 575 - Constitutive Models for Soils (3) T2
- CIVL 579 - Geosynthetics (3) T1
- EOSC 329 - Groundwater Hydrology (3) T1
- EOSC 429 - Groundwater Contamination (3) T1
- EOSC 433 - Geological Engineering Practice II - Soil Engineering (3) T2
- EOSC 533 - Advanced Groundwater Hydrology (3) T1