

# MINING MASTERS OF ENGINEERING PROGRAM- PROGRAM OF STUDIES WORKSHEET

☐ Original  
☐ Revision

Name: \_\_\_\_\_  
Family Given

Student #: \_\_\_\_\_ Start Date: \_\_\_\_\_

Specialization: ☐ Mining/ Mining Geotechnics  
☐ Mineral Processing  
☐ Mine Environment and Sustainability  
☐ Mine Economics and Finance  
☐ Mine Waste Management  
☐ Other \_\_\_\_\_.

## All Specializations are required to take the following courses:

### Required Courses:

MINE 501A & B\*- Topics for Engineers in the Mining Industry (4) (sect.001)  
MINE 559\*- Indigenous Peoples and Mining in Canada (3) (T1)  
MINE 598\*\*- Graduate Student Seminar (2) (sect. 001)  
**9 credits**

**Recommended Specialization Courses: (see attached)** **9- 13 credits**

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**Electives: (see attached)** **5- 9 credits**

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**MINE 597- Engineering Project (register in final term-T3)** **6 credits**

**Total: (minimum of 30 with 24 at 500- level) 30- 34 credits**

**Notes:** \_\_\_\_\_  
\_\_\_\_\_

Graduate students can take a maximum of 6 credits of 300 and 400 level courses for credit towards degree. 60% is the passing grade for graduate students 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 courses or take additional courses.

MINE 396 is recommended for all students with an international undergrad degree who are hoping to apply for P.ENG. status in Canada.

\*Graduates of a Mining Engineering Degree from a North American University may be granted an exemption.

\*\* All graduate students are expected to attend the seminar. To receive credit for the seminar a presentation must be made at the seminar. If you elect not to do the presentation, you will need an additional 2 credits of coursework.

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### **Mineral Processing:**

**Recommended Courses and Engineering Project:** 15

#### **Specialization Courses: (Select 3 courses)**

- |  |          |
|--|----------|
| <input type="checkbox"/> MINE 331/590F- Physical Mineral Processes       | (3) T1   |
| <input type="checkbox"/> MINE 465/590Y- Materials Handling               | (3) T1   |
| <input type="checkbox"/> MINE 333/ 521- Flotation                        | (3) T2   |
| <input type="checkbox"/> MINE 434/524- Processing of Precious Metal Ores | (3) T2   |
|  | <b>9</b> |

#### **Electives: (Select 2 courses)**

- |   |                          |
|---|--------------------------|
| <input type="checkbox"/> Additional Specialization Course from above                | ?                        |
| <input type="checkbox"/> MINE 590X- Advanced Mine Water Management                  | (3) T2 not offered 2025W |
| <input type="checkbox"/> MINE 590W- Heavy Metals                                    | (3) T2 not offered 2025W |
| <input type="checkbox"/> MINE 396- Engineering Economics*                           | (3) T1                   |
| <input type="checkbox"/> MINE 444/590P- Urban Mining: Recovering value from e-waste | (3) T2                   |
| <input type="checkbox"/> MINE 447- Dewatering of Fine Tailings                      | (3) T1                   |
| <input type="checkbox"/> MINE 547/432- Industrial Expert Systems                    | (3) T1                   |
| <input type="checkbox"/> MINE 522- Processing of Mineral Fines                      | (2/4) T2                 |
| <input type="checkbox"/> MINE 508- Integrated Mining and Processing Systems         | (3) T2                   |
| <input type="checkbox"/> MINE 529- Rheology of Mineral Suspensions                  | (3) alternate years      |
| <input type="checkbox"/> Other Electives Selected with Approval: _____              | (?)                      |
|   | <b>6</b>                 |

**Total Credits: (minimum of 30 with 24 at 500- level)** **30**

### **Mine Economics and Finance**

**Recommended Courses and Engineering Project:** 15

#### **Specialization Courses: (Select 3 courses)**

- |   |          |
|---|----------|
| <input type="checkbox"/> MINE 396- Engineering Economics*                         | (3) T1   |
| <input type="checkbox"/> APSC 541- Technology Entrepreneurship**                  | (3) T2   |
| <input type="checkbox"/> MINE 554/406- Mine Project Valuation and Risk Assessment | (3) T2   |
| <input type="checkbox"/> MINE 590E/404- Strategic Issues in Mining_____           | (3) T2   |
|   | <b>9</b> |

#### **Electives: (Select 2 courses)**

- |   |          |
|---|----------|
| <input type="checkbox"/> Additional Specialization Course from above                      | ?        |
| <input type="checkbox"/> MINE 515- The Future of Mining                                   | (3) T2   |
| <input type="checkbox"/> MINE 553- Modeling of Industrial Systems                         | (3) T2   |
| <input type="checkbox"/> COMR 457- Financial Accounting (with approval from Director)***  | (3) T1   |
| <input type="checkbox"/> COMR 458- Managerial Accounting (with approval from Director)*** | (3) T2   |
| <input type="checkbox"/> Other Electives Selected with Approval: _____                    | (?)      |
|   | <b>6</b> |

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

\*\*\*COMR 457 & 458- request registration using the form available at <https://mybcom.sauder.ubc.ca/regi-assist>

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## Mining/ Mining Geotechnics:

### Recommended Courses and Engineering Project:

15

### Specialization Courses: (Select 3 courses)

- ☐ MINE 310/ 590C- Surface Mining & Design (4/3)T1
- ☐ Rock Mechanics Course (one of the following) (3)T1or T2
  - ☐ MINE 590M/303- Rock Mechanics Fundamentals (3)T2
  - ☐ MINE 403/590D- Rock Mechanics Design (prereq: intro to rock mech) (3)T2
  - ☐ MINE 505- Advanced Topics in Rock Engineering (PR MINE 303) (3)T1
- ☐ MINE 552- Mining Geostatistics (3)T2
- ☐ MINE 302/506- Advanced UG Mine Design (3)T2

**9/10**

### Electives: (Select 2 courses)

- ☐ Additional Specialization Course from above ?
- ☐ MINE 485/507- Block Caving Systems- Design & Planning (3) T2
- ☐ MINE 509- Mine Ventilation (3) T1
- ☐ MINE 547- Industrial Expert Systems (3)T1
- ☐ MINE 396- Engineering Economics\* (3) T1
- ☐ MINE 465/590Y- Materials Handling (3) T1
- ☐ MINE 554/406- Mine Project Valuation and Risk Assessment (3) T2
- ☐ Other Electives Selected with Approval: \_\_\_\_\_ (?)

**6**

**Total Credits: (minimum of 30 with 24 at 500- level)**

**30/31**

## Mining Environment and Sustainability:

### Recommended Courses and Engineering Project:

15

### Specialization Courses: (Select 3 courses)

- ☐ MINE 590X- Advanced Mine Water Management (3) T2 not offered 2025W
- ☐ MINE 590W- Heavy Metal (3) T2 not offered 2025W
- ☐ MINE 555 (3) T1
- ☐ MINE 486- Mining and the Environment (3) T2
- ☐ MINE 380/590Q- Advanced Mine Waste Management (3) T2

**9**

### Electives: (Select 2 courses)

- ☐ Additional Specialization Course from above ?
- ☐ MINE 581- Safety of Tailings Storage Facilities (3) T1
- ☐ MINE 585- Risk Management of Tailings Storage Facilities (3) T2 Not offered 2025W
- ☐ MINE 444/590P- Urban Mining (3) T2
- ☐ MINE 396- Engineering Economics\* (3) T1
- ☐ Other Electives Selected with Approval: \_\_\_\_\_ (?)

**6**

**Total Credits: (minimum of 30 with 24 at 500- level)**

**30**

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## **Mine Waste Management:**

### **Recommended Courses and Engineering Project:**

**15**

### **Specialization Courses: (Select 3 courses)**

- ☐ MINE 581 - Safety of Tailings Storage Facilities (3) T1
  - ☐ MINE 585- Risk Management of Tailings Storage Facilities (3) T2 Not offered 2025W
  - ☐ MINE 380/ 590Q- Advanced Mine Waste Management (3) T2
  - ☐ CIVL 418 - Engineering Hydrology (3) T1
- 9**

### **Electives: (Select 2 courses)**

- ☐ Additional Specialization Courses from above ?
  - ☐ MINE 590X- Advanced Mine Water Management (3) T2 not offered 2025W
  - ☐ MINE 396- Engineering Economics\* (3) T1
  - ☐ 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
  - ☐ Other Electives Selected with Approval: (?)
- 6**

### **Total Credits: (minimum of 30 with 24 at 500- level)**

**30**

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