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) (T1 & T2)
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

______________________________________________________________
______________________________________________________________
______________________________________________________________

Electives: (see attached) 5-9 credits

______________________________________________________________
______________________________________________________________

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.
## Mineral Processing:

### Recommended Courses and Engineering Project:

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

- □ MINE 331- Physical Mineral Processes (3) T1
- □ MINE 520- Advanced Coal Preparation (3) T1
- □ MINE 465- Materials Handling (3) T1
- □ MINE 333 or 521- Flotation (3) T2
- □ MINE 524- Processing of Precious Metal Ores (3) T2

**Electives: (Select 2 courses)**

- □ Additional Specialization Course from above ?
- □ MINE 590X- Advanced Mine Water Management (3) T2
- □ MINE 396- Engineering Economics* (3) T1
- □ MINE 590P- Urban Mining (3) T2
- □ MINE 547- Industrial Expert Systems (3) T1
- □ MINE 522- Processing of Mineral Fines (2/4) T2
- □ MINE 508- Integrated Mining and Processing Systems (3) T2
- □ MINE 529- Rheology of Mineral Suspensions (3) alternate years
- □ Other Electives Selected with Approval: ______________________________ (?) .

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

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## Mine Economics and Finance

### Recommended Courses and Engineering Project:

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

- □ MINE 396- Engineering Economics* (3) T1
- □ APSC 541- Technology Entrepreneurship** (3) T2
- □ MINE 554/406- Mine Project Valuation and Risk Assessment (3) T2
- □ MINE 555- Mining and Society (3) T1
- □ MINE 404- Strategic Issues in Mining __________________________ (3) T2

**Electives: (Select 2 courses)**

- □ Additional Specialization Course from above ?
- □ MINE 515- The Future of Mining (3) T2
- □ MINE 553- Modeling of Industrial Systems (3) T2
- □ COMR 457- Financial Accounting (with approval from Director)*** (3) T1
- □ COMR 458- Managerial Accounting (with approval from Director)*** (3) T2
- □ Other Electives Selected with Approval: ______________________________ (?) .

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

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* MINE 396 is recommended for students with international credentials to qualify for P.Eng. status in Canada.
** APSC 541 requires separate application [http://blogs.ubc.ca/baen506apsc541techentrepreneurship/](http://blogs.ubc.ca/baen506apsc541techentrepreneurship/)
*** COMR 457 & 458- request registration using the form available at [https://mybcom.sauder.ubc.ca/regi-assist](https://mybcom.sauder.ubc.ca/regi-assist)
### Mining/ Mining Geotechnics:

#### Recommended Courses and Engineering Project:

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINE 310 - Surface Mining &amp; Design</td>
<td>(4)T1</td>
</tr>
<tr>
<td>Rock Mechanics Course (one of the following)</td>
<td>(3)T1 or T2</td>
</tr>
<tr>
<td>- MINE 590M/303 - Rock Mechanics Fundamentals</td>
<td>T2</td>
</tr>
<tr>
<td>- MINE 403/590D - Rock Mechanics Design (prereq: intro to rock mech)</td>
<td>T2</td>
</tr>
<tr>
<td>- MINE 505 - Advanced Topics in Rock Engineering (prereq MINE 303)</td>
<td>T1</td>
</tr>
<tr>
<td>MINE 552 - Mining Geostatistics</td>
<td>(3) T2</td>
</tr>
<tr>
<td>MINE 302/506 - Advanced UG Mine Design</td>
<td>(3)T2</td>
</tr>
</tbody>
</table>

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

- MINE 552 - Mining Geostatistics
- MINE 302/506 - Advanced UG Mine Design

#### Electives: (Select 2 courses)

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

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

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<thead>
<tr>
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<tbody>
<tr>
<td>15</td>
</tr>
<tr>
<td>9/10</td>
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<td>30/31</td>
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### Mining Environment and Sustainability:

#### Recommended Courses and Engineering Project:

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<tr>
<td>MINE 555 - Mining and Society</td>
<td>(3) T1</td>
</tr>
<tr>
<td>MINE 590X - Advanced Mine Water Management</td>
<td>(3) T2</td>
</tr>
<tr>
<td>MINE 590W - Heavy Metal</td>
<td>(3) T2</td>
</tr>
<tr>
<td>MINE 486 - Mining and the Environment</td>
<td>(3) T2</td>
</tr>
<tr>
<td>MINE 380/590Q - Advanced Mine Waste Management</td>
<td>(3) T2</td>
</tr>
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#### Specialization Courses: (Select 3 courses)

- MINE 555 - Mining and Society
- MINE 590X - Advanced Mine Water Management
- MINE 590W - Heavy Metal
- MINE 486 - Mining and the Environment
- MINE 380/590Q - Advanced Mine Waste Management

#### Electives: (Select 2 courses)

- Additional Specialization Course from above
- MINE 581 - Safety of Tailings Storage Facilities
- MINE 585 - Risk Management of Tailings Storage Facilities
- MINE 590P - Urban Mining
- MINE 396 - Engineering Economics*
- Other Electives Selected with Approval: ____________________________ (?)

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

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**Mine Waste Management:**

**Recommended Courses and Engineering Project:** 15

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

- MINE 541 - Environmental Risk Assessments in Mining (3) T2
- MINE 581 - Safety of Tailings Storage Facilities (3) T1
- MINE 380/590Q - Advanced Mine Waste Management (3) T2
- CIVL 418 - Engineering Hydrology (3) T1

**Electives: (Select 2 courses)**

- Additional Specialization Courses from above
- MINE 555 - Mining and Society (3) T1
- MINE 585 - Risk Management of Tailings Storage Facilities (3) T2
- MINE 590X - Advanced Mine Water Management (3) T2
- 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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