# MINING MASTERS OF ENGINEERING PROGRAM- PROGRAM OF STUDIES WORKSHEET

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- 12 credits**

_____
_____
_____
_____
_____

**Electives: (see attached)** **6- 9 credits**

_____
_____
_____
_____

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

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:** | **9** |
| **Specialization Courses: (Select 3 courses)** | |
| ☐ MINE 331/590F- Physical Mineral Processes | (3) T1 |
| ☐ MINE 465/590Y- Materials Handling | (3) T1 |
| ☐ MINE 333/ 521- Flotation | (3) T2 |
| ☐ MINE 434/524- Processing of Precious Metal Ores | (3) T2 |
| | **9** |
| **Electives: (Select 4 courses)** | |
| ☐ Additional Specialization Course from above | ? |
| ☐ MINE 396- Engineering Economics* | (3) T1 |
| ☐ MINE 444/590P- Urban Mining: Recovering value from e-waste | (3) T2 |
| ☐ MINE 447- Dewatering of Fine Tailings | (3) T1 |
| ☐ MINE 547/432- Industrial Expert Systems | (3) T1 |
| ☐ MINE 508- Integrated Mining and Processing Systems | (3) T2 |
| ☐ MINE 529- Rheology of Mineral Suspensions | (3) alternate years |
| ☐ Other Electives Selected with Approval: _____ | (?) . |
| | **12** |
| **Total Credits: (minimum of 30 with 24 at 500- level)** | **30** |

**Mine Economics and Finance**

| | |
|---|---|
| **Recommended Courses:** | **9** |
| **Specialization Courses: (Select 3 courses)** | |
| ☐ MINE 396- Engineering Economics* | (3) T1 |
| ☐ APSC 541- Technology Entrepreneurship** | (3) T2 |
| ☐ MINE 406/554- Mine Project Valuation and Risk Assessment | (3) T2 |
| ☐ MINE 404/590E- Strategic Issues in Mining | (3) T2 |
| | **9** |
| **Electives: (Select 4 courses)** | |
| ☐ Additional Specialization Course from above | ? |
| ☐ MINE 515- The Future of Mining | (3) T2 |
| ☐ MINE 350/553- 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: _____ | (?) . |
| | **12** |
| **Total Credits: (minimum of 30 with 24 at 500- level)** | **30** |

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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:** | **9** |
| | |
| **Specialization Courses: (Select 3 courses)** | |
| ☐ MINE 310/590C- Surface Mining & Design | (4/3)T1 |
| ☐ Rock Mechanics Course (one of the following) | |
| o MINE 303/590M- Rock Mechanics Fundamentals | (3)T2 |
| o 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 |
| | **9** |
| **Electives: (Select 4 courses)** | |
| ☐ Additional Specialization Course from above | ? |
| ☐ MINE 485/507- Block Caving Systems- Design & Planning | (3) T2 |
| ☐ MINE 402/509- Mine Ventilation | (3) T1 |
| ☐ MINE 432/547- Industrial Expert Systems | (3)T1 |
| ☐ MINE 396- Engineering Economics* | (3) T1 |
| ☐ MINE 465/590Y- Materials Handling | (3) T1 |
| ☐ MINE 406/554- Mine Project Valuation and Risk Assessment | (3) T2 |
| ☐ EOSC ???- Courses selected from Geological Engineering and Earth and Ocean Sciences. | |
| ☐ Other Electives Selected with Approval: _____ | (?) . |
| | **12** |
| **Total Credits: (minimum of 30 with 24 at 500- level)** | **30** |

**Mining Environment and Sustainability:**

| | |
|---|---|
| **Recommended Courses:** | **9** |
| | |
| **Specialization Courses: (Select 3 courses)** | |
| ☐ MINE 555- Mining and Society | (3) T1 |
| ☐ MINE 486- Mining and the Environment | (3) T2 |
| ☐ MINE 447- Dewatering of Fine Tailings | (3) T1 |
| ☐ MINE 380/590Q- Advanced Mine Waste Management | (3) T2 |
| | **9** |
| **Electives: (Select 4 courses)** | |
| ☐ Additional Specialization Course from above | ? |
| ☐ MINE 581- Safety of Tailings Storage Facilities | (3) T1 |
| ☐ MINE 585- Risk Mgement 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: _____ | (?) . |
| | **12** |
| **Total Credits: (minimum of 30 with 24 at 500- level)** | **30** |

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**Mine Waste Management:**

**Recommended Courses:** **9**

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

- ☐ MINE 581- Safety of Tailings Storage Facilities (3) T1
- ☐ MINE 585- Risk Mgement 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 4 courses)**

- ☐ Additional Specialization Courses from above ?
- ☐ 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: (?) .

**12**

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

**Directed Studies: Students may request to do up to 6 credits of directed studies.**

- ☐ MINE 590?- Topic:_____ (3) T1, T2, T3
- ☐ MINE 590?- Topic:_____ (3) T1, T2, T3

or

- ☐ MINE 597- Engineering Report (6) T1, T2, T3

**Policies:**

- Faculty reserve the right to refuse the application for directed studies.
- The onus is on the student work out the details with a faculty member from the department.
- Directed studies must involve independent study.
- The rigor and time commitment of a directed studies course is often much greater than that for a regular course.
- A Directed Studies Request must be filled in by the student and signed by the faculty member. It should indicate whether the course will take one or two terms.
- This course must be completed by the end of the term indicated with a final grade submitted by the grade deadline.
- A student may take a maximum of 6 credits from directed studies courses.

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