

## Specialist High Skills Major Mining 2025-2026

### Profile

Minerals and metals are the building blocks of the tech devices we rely on, of the vehicles that get us places, of the buildings where we live and work, and of green technologies that help make the world a more sustainable place. Just as we as individuals depend on mining to support our daily lives, Canada relies on the industry to keep the economy humming. Mining is one of Canada's most important economic sectors and a major job creator. The Canadian mining industry directly employs more than 426,000 workers across the country in mineral extraction, smelting, fabrication and manufacturing, and indirectly employs an additional 206,000. Canada has one of the largest mining supply sectors globally with more than 3,772 companies supplying engineering, geotechnical, environmental, financial, and other services to mining operations. The average annual pay for a mining worker in 2017 exceeded \$117,000, higher than the forestry, manufacturing, finance, and construction sectors. \*

\*The Mining Association of Canada [www.mining.ca](http://www.mining.ca)

### Certifications (7)

#### Compulsory (4):

- CPR level C and AED
- Standard First Aid
- WHMIS
- General Safety Awareness

#### Electives (3) (more options at Ontario.ca):

- Basic Electrical Safety
- Chainsaw Safety
- Lockout/Tagging
- Elevated Work Platforms
- Portfolio Development
- Customer Service
- Confined Space Awareness
- Surface and Underground Orientation

#### Other Opportunities:

- Industry visits
- Community partnerships
- Possible dual credits

### Possible Occupations in the Sector

| Workplace                                                   | Apprenticeship                                                | College                                                                                    | University                                          |
|-------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Cage Tender<br>Crusher Operator<br>Mine Labourer<br>Sampler | Electrician<br>Heavy Duty Mechanic<br>Millwright<br>Machinist | Geological Technician<br>Instrumentation Technician<br>Mechanical Engineering Technologist | Geologist<br>Mechanical Engineer<br>Mining Engineer |

### Additional Information

- SHSMs are for students in all four pathways: Workplace, Apprenticeship, College, and University.
- Major credits may be offered in school, but additional courses are offered through eLearning and booklet courses.
- You can indicate your interest at [www.myblueprint.ca](http://www.myblueprint.ca) or speak with your Guidance Counsellor.
- There are no extra credits required - the SHSM is obtained within the 30 OSSD credits.
- SHSMs are two-year programs and are made up of Grade 11 and 12 courses.
- There are no additional fees for students to participate in a SHSM.



## Mining SHSM Pathway (Total of 9 credits)

Please check the Ministry's Master List for more approved courses

### Grade 11 Courses

### Grade 12 Courses

### Major Credits (4 credits)

**Students can now substitute 3 additional Cooperative Education credits related to their sector in place of 3 major credits**

ICS3U – Introduction to Computer Science  
 ICS3C – Introduction to Computer Programming  
 IDC3O/IDP3O – Interdisciplinary Studies  
 SBI3C – Biology  
 SBI3U – Biology  
 SCH3U – Chemistry  
 SPH3U – Physics  
 SVN3E – Environmental Science  
 SVN3M – Environmental Science  
 TCE3E – Construction Technology: Electrical/Network Cabling  
 TCJ3E – Construction Technology  
 TCJ3C – Construction Engineering Technology  
 TDJ3O – Technological Design and the Environment  
 TDJ3M – Technological Design  
 TEJ3M – Computer Engineering Technology  
 TER3M – Computer Engineering Technology: Robotics and Control System  
 TMJ3C – Manufacturing Technology  
 TMJ3E – Manufacturing Technology  
 TMJ3M – Manufacturing Technology  
 TTJ3C – Transportation Technology  
 TTJ3O – Transportation Technology: Vehicle Ownership

CGR4E – Living in a Sustainable World  
 CGR4M – The Environment and Resource Management  
 ICS4C – Computer Programming  
 IDC4O/IDP4O – Interdisciplinary Studies  
 IDC4U/IDP4U – Interdisciplinary Studies  
 SBI4U – Biology  
 SCH4C – Chemistry  
 SPH4U – Physics  
 TCE4E – Construction Technology: Electrical/Network Cabling  
 TCJ4E – Construction Technology  
 TCJ4C – Construction Engineering Technology  
 TDJ4O – Technological Design in the Twenty-first Century  
 TDJ4M – Technological Design  
 TEJ4M – Computer Engineering Technology  
 TMJ4E – Manufacturing Technology  
 TMJ4C – Manufacturing Technology  
 TMJ4M – Manufacturing Engineering Technology  
 TTJ4E – Transportation Technology: Vehicle Maintenance  
 TTJ4C – Transportation Technology

\*Possible Dual Credits  
 TLA4Y – Welding I

### English (1 credit)

NBE3C – Understanding Contemporary First Nations, Métis, and Inuit Voices  
 NBE3E – Understanding Contemporary First Nations, Métis, and Inuit Voices  
 NBE3U – Understanding Contemporary First Nations, Métis, and Inuit Voices

ENG4C – English  
 ENG4E – English  
 ENG4U – English  
 OLC4O – Ontario Secondary School Literacy Course

### Math (1 credit)

MBF3C – Foundations for College Math  
 MCF3M – Functions and Applications  
 MEL3E – Mathematics for Work and Everyday Life  
 MCR3U – Functions

MAP4C – Foundations for College Mathematics  
 MCT4C – Mathematics for College Technology  
 MDM4U – Data Management  
 MCV4U – Calculus and Vectors  
 MHF4U – Advanced Functions  
 MEL4E – Math for Work and Everyday Life

### Other (1 credit)

**Students can substitute 1 additional Cooperative Education credit related to their sector in place of 1 other credit**

MEL3E – Mathematics for Work and Everyday Life  
 OLC3O – Ontario Secondary School Literacy Course, Open  
 SBI3C – Biology  
 SBI3U – Biology  
 SCH3U – Chemistry  
 SPH3U – Physics  
 SVN3E – Environmental Science  
 SVN3M – Environmental Science

CGR4E – Living in a Sustainable World  
 CGR4M – The Environment and Resource Management  
 GLE4O – Advanced Learning Strategies  
 MEL4E – Math for Work and Everyday Life  
 OLC4O – Ontario Secondary School Literacy Course  
 SBI4U – Biology  
 SCH4C – Chemistry  
 SNC4E – Science  
 SNC4M – Science  
 SPH4U – Physics

**Cooperative Education (2 credits taken in grade 11 OR 12)  
 Summer co-op available.**



# Specialist High Skills Major Mining

Student Name: \_\_\_\_\_

Year of graduation: \_\_\_\_\_

Pathway of interest:

☐ Apprenticeship

☐ College

☐ University

☐ Workplace

|                                                                                                                                                                                                                                 |                                                   |                                                                                                                                                |                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <b>Certifications (Mandatory*):</b><br><input type="checkbox"/> *Standard First Aid<br><input type="checkbox"/> *CPR Training<br><input type="checkbox"/> *WHMIS Training<br><input type="checkbox"/> *General Safety Awareness | <b>Date Completed:</b><br>_____<br>_____<br>_____ | <b>3 Sector Specific Certifications:</b><br><input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____ | <b>Date Completed:</b><br>_____<br>_____<br>_____ |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|

| Pathway                                                                                                                                                               | Apprenticeship                                                                                                                                                                                              | College                                                                                                                              | University                                                                                                                           | Workplace                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>4 Major Credits:</b><br><br>New: <b>Students can now substitute 3 additional Cooperative Education credits related to their sector in place of 3 major credits</b> | <input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____                                                                        | <input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____ | <input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____ | <input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____<br><input type="checkbox"/> _____ |
|                                                                                                                                                                       | <input type="checkbox"/> 1 extra sector-related coop credit _____<br><input type="checkbox"/> 1 extra sector-related coop credit _____<br><input type="checkbox"/> 1 extra sector-related coop credit _____ |                                                                                                                                      |                                                                                                                                      |                                                                                                                                      |
| <b>1 English:</b>                                                                                                                                                     | <input type="checkbox"/> _____                                                                                                                                                                              | <input type="checkbox"/> _____                                                                                                       | <input type="checkbox"/> _____                                                                                                       | <input type="checkbox"/> _____                                                                                                       |
| <b>1 Math:</b>                                                                                                                                                        | <input type="checkbox"/> _____                                                                                                                                                                              | <input type="checkbox"/> _____                                                                                                       | <input type="checkbox"/> _____                                                                                                       | <input type="checkbox"/> _____                                                                                                       |
| <b>1 Other Required Credit:</b><br><br>Students can substitute 1 additional Cooperative Education credit related to their sector in place of 1 minor credit           | <input type="checkbox"/> _____                                                                                                                                                                              | <input type="checkbox"/> _____                                                                                                       | <input type="checkbox"/> _____                                                                                                       | <input type="checkbox"/> _____                                                                                                       |
|                                                                                                                                                                       | <input type="checkbox"/> 1 extra sector-related coop credit _____                                                                                                                                           |                                                                                                                                      |                                                                                                                                      |                                                                                                                                      |
| <b>2 Sector Related Cooperative Education Credits:</b>                                                                                                                | <input type="checkbox"/> Coop _____<br><input type="checkbox"/> Coop _____                                                                                                                                  | <input type="checkbox"/> Coop _____<br><input type="checkbox"/> Coop _____                                                           | <input type="checkbox"/> Coop _____<br><input type="checkbox"/> Coop _____                                                           | <input type="checkbox"/> Coop _____<br><input type="checkbox"/> Coop _____                                                           |

**Minimum 1 Experiential Learning, 1 Reach Ahead Experience & 1 Sector-Partner Experience:**

☐ Experiential: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Reach Ahead: \_\_\_\_\_ Date: \_\_\_\_\_

☐ SPE: \_\_\_\_\_ Date: \_\_\_\_\_