

# Bachelor of Science – Geology 2016/17

Name: \_\_\_\_\_  
 Student #: \_\_\_\_\_ Admission Year: \_\_\_\_\_

YEAR ONE – FALL		
GEOL 1101 <sup>FW</sup>	Physical Geology	
CHEM 1201 <sup>FW</sup>	General Chemistry – Structure and Bonding	
MATH 1200 <sup>FW</sup>	Calculus for Scientists I	
PHYS 1201 <sup>FW</sup>	Classical Physics I	
GNEDE Foundation <sup>FW</sup> Cluster 1		
YEAR ONE - WINTER		
GEOL 1103 <sup>FW</sup>	Historical Geology	
MATH 1203 <sup>FW</sup>	Linear Algebra for Scientists and Engineers	
COMP 1001 <sup>FW</sup>	Introduction to Computer- Based Problem Solving for the Sciences	
GNEDE Foundation <sup>FW</sup> Cluster 4		
GNEDE Foundation <sup>FW</sup> Cluster 2 or 3		
YEAR TWO - FALL		
GEOL 2300 <sup>F</sup>	Introduction to Geological Field Methods I (runs in August – 6 days)	1.5 CR
GEOL 2103 <sup>F</sup>	Minerals and Rocks	
GEOL 2105 <sup>F</sup>	Structural Geology	
CHEM 1202 <sup>FW</sup>	General Chemistry – Introduction to Quantitative Chemistry	
PHYS 1202 <sup>FW</sup>	Classical Physics II	
GNEDE Foundation <sup>FW</sup> Cluster 2 or 3		
YEAR TWO - WINTER		
GEOL 2107 <sup>W</sup>	Paleontology	
GEOL 2109 <sup>W</sup>	Stratigraphy and Sedimentation	
GEOL 2111 <sup>W</sup>	Crystallography and Optical Mineralogy	
GNEDE Tier 2 Cluster1 <sup>FW</sup>		
GNEDE Tier 2 Cluster 3 <sup>FW</sup>		
YEAR THREE - FALL		
GEOL 3300 <sup>F</sup>	Geological Field Methods II (runs in August – 4 days)	1.5 CR
GEOL 3103 <sup>F</sup>	Igneous Petrology	
GEOL 3107 <sup>F</sup>	Geomorphology	
GEOL 3109 <sup>F</sup>	Sedimentary Petrology	
GNEDE Tier 2 Cluster2 <sup>FW</sup>		
GNEDE Tier 2 Cluster 4 <sup>FW</sup>		
YEAR THREE - WINTER		
GEOL 3111 <sup>W</sup>	Metamorphic Petrology	
GEOL 3113 <sup>W</sup>	Geochemistry	
GEOL 3115 <sup>W</sup>	Exploration Geophysics	
GNEDE Tier 3 <sup>FW</sup>		
GNEDE Tier 3 <sup>FW</sup>		
YEAR FOUR- FALL		
GEOL 4300 <sup>F</sup>	Advanced Geological Field Methods (2 week course runs in August)	
GEOL 4105 <sup>F</sup>	Hydrogeology	
GEOL 4107 <sup>F</sup> or GEOL 4607	Geological History of Western Canada OR Geology of the Canadian Cordillera	
MATH 2235 <sup>F</sup>	Statistics with Applications in Geology	
Choose one of: GEOL 4101 <sup>F</sup> / 4103 <sup>F</sup> /4515/4601?	Advanced Topics in Sedimentary Geology OR Advanced Topics in Igneous/Metamorphic Geology OR Sedimentary Basin Analysis OR Plate Tectonic Regimes	
YEAR FOUR - WINTER		
GEOL 4109 <sup>W</sup>	Petroleum Geology	
GEOL 4111 <sup>W</sup>	Ore Deposits and Economic Geology	
GEOL 4113 <sup>W</sup> or GEOL 5201	Geoscience Research OR Independent Research Projects I	
GNEDE Tier 3 <sup>FW</sup>		

**General Education:** Requirements in your program designed to give you a well-rounded knowledge base and are organized into 4 thematic clusters. Each Cluster has 3 tiers; Tier 1 (foundation), Tier 2 and Tier 3.

Cluster 1: Numeracy & Scientific Literacy  
 Cluster 2: Values, beliefs & Identity  
 Cluster 3: Community & Society  
 Cluster 4: Communication

Visit [mtroyal.ca/gened/courses](http://mtroyal.ca/gened/courses) for more information and a list of GNEDE courses.

Students must take a foundation level and Tier 2 course from each of the 4 clusters and (3) Tier 3 GNEDEs from at least 2 Clusters.

**Junior courses:** are courses at the 1000 level. Students are allowed a maximum of 16 junior courses.

**Prerequisites & Course descriptions:** can be found in the Academic Calendar or by visiting: [mtroyal.ca/ProgramsCourses/CourseListings](http://mtroyal.ca/ProgramsCourses/CourseListings)

**Advising Plan:** This a suggested sequence for taking the required courses for your major. This plan factors in prerequisite requirements and will allow you to complete your degree in 4 years, provided you complete 5 courses per semester. This is just one example of how you can complete your degree requirements; you may find that a different sequence or smaller course load works better for you.

To be considered full time a student must be enrolled in a minimum of three 3 credit courses.

<sup>F</sup> Indicates that the course runs in Fall semester only.

<sup>W</sup> Indicates that the course runs in Winter semester only.

<sup>FW</sup> Indicates that the course is offered in both Fall and Winter semester.

**APEGA: The Association of Professional Engineers and Geoscientists of Alberta** regulates the practices of Engineers and Geoscientists in Alberta.

In order to qualify for registration with APEGA it is recommended that students take one of the following courses:

**BIOL 1205** – The Organization and Diversity of Life to meet the GNEDE Tier 2 Cluster 1 requirement. OR

**MATH 1202** – Calculus for Scientists II to meet one of the GNEDE Tier 3 requirements

**\*Please note that you do not need BIOL 1205 or MATH 1202 to graduate. It is a recommendation for students who plan to work as professional Geologists.**