

# Bachelor of Science - Geology 2020-21

STUDENT NAME:

STUDENT ID #:

ADMISSION YEAR/CATALOGUE YEAR:

**PLEASE READ:**

**General Education** approved courses, otherwise known as “GNED requirements” are designed to give you a well-rounded knowledge base and are organized into 4 thematic clusters. Each Cluster has 3 levels: 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

Students must take a foundation level course from each of the four clusters, three tier 2 GNEDs (one from each of cluster 2, 3, and 4), and three tier 3 GNEDs from at least two clusters, for a total of 10 GNED courses.

For more information and a list of GNED courses, visit [mtroyal.ca/gened](http://mtroyal.ca/gened) and click ‘courses’ on the left-hand navigation.

**Junior courses** are courses at the 1000 level. Students are allowed a maximum of sixteen junior courses for graduation purposes.

**Electives:** an elective is any three-credit course. It is advised that students select a senior level elective to avoid exceeding the sixteen junior course limit.

**Prerequisites and course descriptions:** can be found in the Academic Calendar under the ‘courses’ link at <http://catalog.mtroyal.ca/>

**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 four years, provided you complete five courses per semester. This is just one example of how you can complete your degree requirements; you may find that a different sequence or a lighter course load works better for you.

To be considered a full-time student, students 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.

Mount Royal’s Geology program meets the Geoscience knowledge and experience requirements for professional registration in Canada. Please see the APEGA website for more information.

**APEGA: The Association of Professional Engineers and Geoscientists of Alberta.**

YEAR ONE - FALL		
GEOL 1101 <sup>FW</sup>	The Dynamic Earth	
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	
GNED Foundation <sup>FW</sup> Cluster 1	One of: GNED 1101 or GNED 1103	
YEAR ONE - WINTER		
GEOL 1103 <sup>W</sup>	Earth Through Time	
MATH 1203 <sup>FW</sup>	Linear Algebra for Scientists and Engineers	
COMP 2001 <sup>FW</sup>	Computer-Based Problem Solving for the Sciences	
GNED Foundation <sup>FW</sup> Cluster 4	One of: GNED 1401 or GNED 1404	
GNED Foundation <sup>FW</sup> Cluster 2	One of: GNED 1201, 1202, 1203 or 1204	
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	
GNED Foundation <sup>FW</sup> Cluster 3	One of: GNED 1301, 1302, 1303 or 1304	
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	
GNED Tier 2 Cluster 2 <sup>FW</sup>		
GNED Tier 2 Cluster 3 <sup>FW</sup>		
YEAR THREE - FALL		
GEOL 3300 <sup>F</sup>	Geological Field Methods II (runs in August – 5 days)	1.5 CR
GEOL 3103 <sup>F</sup>	Igneous Petrology	
GEOL 3107 <sup>F</sup>	Geomorphology	
GEOL 3109 <sup>F</sup>	Sedimentary Petrology	
GNED Tier 2 Cluster 4 <sup>FW</sup>		
Elective		
YEAR THREE - WINTER		
GEOL 3111 <sup>W</sup>	Metamorphic Petrology	
GEOL 3113 <sup>W</sup>	Geochemistry	
GEOL 3115 <sup>W</sup>	Exploration Geophysics	
GNED Tier 3		
GNED Tier 3		
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	
<b>Choose one of:</b> 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	
One of: GEOL 4113 <sup>W</sup> or 5201	Geoscience Research OR Directed Readings OR Independent Research Projects I	
GNED Tier 3		

This document is only intended to be a guide for students and should be used together with the Mount Royal University Academic Calendar which states academic policies and degree requirements. Be sure to consult with your Academic Advisor to confirm graduation requirements or if you have any questions.