

**Course Requirements and Registration Priorities
School of Mining and Geosciences (Undergraduate), Fall 2021**

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
SMG											
Economics, School of Mining and Geosciences											
1	SMG 200/ECON 220	Resource Economics	3	6	MATH 161 Calculus I (118) (C- and above) OR MATH 162 Calculus II (170) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG	Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Robotics and Mechatronics, Undeclared SEDS	SSH	
Mining Engineering											
2	MINE 301	Mine Surveying and Geographic Information Systems	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
3	MINE 302	Geomechanics	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
4	MINE 304	Resource Estimation	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
5	MINE 401	Mining Geotechnical Engineering	3	6	MINE 302 Geomechanics (5878) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
6	MINE 402	Coal Mining	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
7	MINE 405	Mine Ventilation	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			

8	MINE 406	Mine Robotics and Automation	3	6	SMG 100 Introduction to Natural Resources Extraction (4773) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
9	MINE 489	Research Project I	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
Petroleum Engineering											
10	PETE 201	Fluid Mechanics and Thermodynamics	3	6	MATH 161 Calculus I (118) (D and above) OR CHEM 101 General Chemistry I (113) (D and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG	Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Robotics and Mechatronics, Undeclared SEDS		
11	PETE 301	Numerical Methods for Petroleum Engineers	3	6	ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above) OR ENG 101 Programming for Engineers (4517) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
12	PETE 302	Reservoir Engineering I with Laboratory works	4	8	PETE 204 Reservoir Rock and Fluid Properties with Lab (5487) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
13	PETE 303	Well Logging and Formation Evaluation	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
14	PETE 304	Well Completion and Stimulation	3	6	PETE 203 Drilling Engineering with Laboratories (5486) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
15	PETE 400	Capstone Design Project I	3	6	PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above) AND PETE 203 Drilling Engineering with Laboratories (5486) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			

16	PETE 401	Production Enhancement	3	6	PETE 307 Production Engineering (6146) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
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17	GEOL 201	Mineralogy	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
18	GEOL 202	Geologic Maps and Cross-Sections	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG	Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Robotics and Mechatronics, Undeclared SEDS		
19	GEOL 301	Igneous and metamorphic petrology	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
20	GEOL 302	Thermodynamics and Geochemistry	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
21	GEOL 303	Structural Geology and Tectonics	3	6	(GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)) AND GEOL 202 Geologic Maps and Cross-Sections (5123) (D and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
22	GEOL 305	Geology of ore deposits	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above) OR GEOL 201 Mineralogy (5122) (D and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			

23	GEOL 310	Field Geology 2	3	6	GEOL 303 Structural Geology and Tectonics (5874) (D and above) OR GEOL 301 Igneous and metamorphic petrology (5886) (D and above)			5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
24	GEOL 401	Petroleum Geology and Geochemistry	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
25	GEOL 402	Water Resource Management	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
26	GEOL 404	Research Project I	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
27	SMG 100	Introduction to Natural Resources Extraction	3	6				5 year UG SEDS, 5 year UG SSH, Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			