

**Course Requirements and Registration Priorities
School of Mining and Geosciences (Undergraduate), Fall 2022**

#	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)			4 year UG SMG			
Mining Engineering											
2	MINE 301	Mine Surveying and Geographic Information Systems	3	6				Mining Engineering			
3	MINE 302	Geomechanics	3	6				Mining Engineering			
4	MINE 304	Resource Estimation	3	6				Mining Engineering			
5	MINE 401	Mining Geotechnical Engineering	3	6	MINE 302 Geomechanics (5878) (C- and above)			Mining Engineering			
6	MINE 402	Coal Mining	3	6				Mining Engineering			
7	MINE 405	Mine Ventilation	3	6				Mining Engineering			
8	MINE 489	Research Project I	3	6				Mining Engineering			
Petroleum Engineering											
9	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)			2 year UG SMG Mining Engineering, 3 year UG SMG Mining Engineering, Petroleum Engineering	SEDS		
10	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)			Petroleum Engineering			
11	PETE 302	Reservoir Engineering I with Laboratory works	4	8	PETE 204 Reservoir Rock and Fluid Properties with Lab (5487) (C- and above)			Petroleum Engineering			
12	PETE 303	Well Logging and Formation Evaluation	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above)			Petroleum Engineering			
13	PETE 304	Well Completion and Stimulation	3	6	PETE 203 Drilling Engineering with Laboratories (5486) (C- and above)			Petroleum Engineering			
14	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)			Petroleum Engineering			

15	PETE 401	Production Enhancement	3	6	PETE 307 Production Engineering (6146) (C- and above)			Petroleum Engineering			
School of Mining and Geosciences											
16	GEOL 201	Mineralogy	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above)			Geology	Mining Engineering	SEDS	
17	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)			Geology	Mining Engineering	SEDS	
18	GEOL 203	Geomorphology	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above) OR GEOL 102 Fundamentals of Geology (4772) (C- and above)			Geology	Mining Engineering	SEDS	
19	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)			Geology	Mining Engineering	SEDS	
20	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)			Geology	Mining Engineering	SEDS	
21	GEOL 306	Geodynamics	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)			SMG			
22	GEOL 308	Environmental Geochemistry	3	6				Geology	Mining Engineering	SEDS	
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)			4 year UG SMG Geology	4 year UG SMG Mining Engineering		
24	GEOL 401	Petroleum Geology and Geochemistry	3	6				4 year UG SMG Geology, 4 year UG SMG Petroleum Engineering		3 year UG SMG Geology	
25	GEOL 402	Water Resource Management	3	6				4 year UG SMG Geology, 4 year UG SMG Mining Engineering		3 year UG SMG Geology	
26	GEOL 404	Research Project I	3	6				4 year UG SMG Geology			
27	SMG 100	Introduction to Natural Resources Extraction	3	6				SMG	SEDS		