

**Course Requirements and Registration Priorities
School of Mining and Geosciences, Fall 2020**

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
SMG											
Mining Engineering											
1	MINE 301	Mine Surveying and Geographic Information Systems	3	6				3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
2	MINE 302	Geomechanics	3	6				3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
3	MINE 304	Resource Estimation	3	6				3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
4	MINE 405	Mine Ventilation	3	6				3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
5	MINE 501	Foundations of Mining	3	6				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
6	MINE 502	Geology for Mining Engineers	3	6				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
7	MINE 503	Applied Geostatistics	3	6				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
8	MINE 504	Mine Geomechanics	3	6				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
9	MINE 505	Advanced Mine Ventilation	3	6				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
10	MINE 601	Mine Management and Sustainability	3	6				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
11	MINE 602	Mine Maintenance and Services	3	6	MINE 502 Geology for Mining Engineers (3691) (C- and above)			Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
12	MINE 605	Mechanized Excavation and Tunnelling	3	6				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
13	MINE 606	Underground Hard Rock Geotechnical Engineering	3	6				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
14	MINE 690	Thesis I	6	12				Mining Engineering			
15	MINE 701	Advanced Mine Geomechanics	4	8				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
16	MINE 801	Advanced Mechanized Excavation and Tunneling	4	8				Mining Engineering	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
17	MINE 890-0	Thesis Research	0	0				Mining Engineering			
Petroleum Engineering											

18	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		
19	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	Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Robotics and Mechatronics, Undeclared SEDS		
20	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	Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Robotics and Mechatronics, Undeclared SEDS		
21	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	Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Robotics and Mechatronics, Undeclared SEDS		
22	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	Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Robotics and Mechatronics, Undeclared SEDS		
23	PETE 501	Foundations of Petroleum Engineering	3	6				Petroleum Engineering			
24	PETE 502	Petroleum Geology	3	6				Petroleum Engineering			
25	PETE 503	Fluid Flow Through Porous Media	3	6				Petroleum Engineering			

26	PETE 504	Advanced Formation Evaluation	3	6				Petroleum Engineering			
27	PETE 505	Advanced Drilling Engineering	3	6				Petroleum Engineering			
28	PETE 509	Advanced Well Testing and Evaluation	3	6				Petroleum Engineering			
29	PETE 600	Thesis I	6	12				Petroleum Engineering			
30	PETE 601	Petroleum Data Analytics	3	6				Petroleum Engineering			
31	PETE 602	Research Seminar	3	6				Petroleum Engineering			
32	PETE 701	Advanced Well Engineering	4	8				Petroleum Engineering	Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
33	PETE 806	Advanced Special Core Analysis	4	8				Petroleum Engineering	Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
34	PETE 890	Thesis Research	0	0				Petroleum Engineering		SEDS	
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35	GEOL 201	Mineralogy	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above)			2 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
36	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)			2 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
37	GEOL 206	Field Geology 1	3	6	GEOL 202 Geologic Maps and Cross-Sections (5123) (C- and above)			3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
38	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)			3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			

39	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)			3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
40	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)			3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
41	GEOL 304	Geophysics	3	6	GEOL 204 Sedimentology and stratigraphy (5475) (D and above)			3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
42	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)			3 year UG SMG, 5 year UG SEDS, 5 year UG SSH			
43	SMG 710	Research Methods and Statistics	3	6				GSB, GSE, GSPP, SEDS, SMG, SSH, SoM			