

Name:

Key:

Done
In Progress
Possible based on prerequisites

2017-2018 Mining Engineering Curriculum

This chart was prepared by Freshman Engineering using the 2017-2018 catalog. It is designed to assist in advising and course selection; refer to the student's catalog requirement year for official requirements and to the student's degree audit for official progress.

Prerequisites	FEP		Math	1103	Fundamentals of Algebra	Prerequisite: Entrance requirements.	3	
	FEP		Math	1120	College Algebra	Prerequisite: By placement examination.	5	
	FEP		Math	1140	College Algebra	Prerequisite: By placement examination.	3	
	FEP		Math	1160	Trigonometry	Prerequisite: Math 1120 or 1140 with a grade of "C" or better; or by placement exam.	2	

Semester 1	FEP		Chem	1310	General Chemistry I	Prerequisite: Entrance requirements.	4	
	FEP		Chem	1319	General Chemistry Laboratory	Prerequisite: Preceded or accompanied by both Chem 1310 and Chem 1100.	1	
	FEP		Fr Eng	1100	Study & Careers in Engineering		1	
	FEP		Math	1214	Calculus for Engineers I	Prerequisites: A grade of "C" or better in both Math 1160 and one of Math 1120 or Math 1140; or by placement exam.	4	
	FEP	<i>Hum/Soc Sci Elective - History</i>	History/Pol Sci	one of these	1. History 1200 Modern Western Civilization 2. History 1300 American History to 1877 3. History 1310 American History Since 1877 4. Pol Sci 1200 American Government		3	
	FEP		English	1120	Exposition and Argumentation		3	
	FEP		Chem	1100	Introduction to Laboratory Safety & Hazardous Materials		1	

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Semester 2	FEP		Math	1215	Calculus for Engineers II	Prerequisites: Math 1160 and either Math 1208 or Math 1214 both with a grade of "C" or better; or by placement exam.	4	
	FEP		Physics	1135	Engineering Physics I	Prerequisite: Math 1208 or 1214.	4	
	FEP		Mech Eng	1720	Introduction to Engineering Design		3	
			Min Eng	1912	Principles of Mining Engineering		2	
			Min Eng	2126	Introduction to Mining Safety		1	
			Geo Eng	1150	Physical and Environmental Geology	Prerequisite: Entrance requirements. (Co-listed with Geology 1110).	3	

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Semester 3		Min Eng	3912	Materials Handling in Mines	Prerequisite: Preceded or accompanied by Min Eng 1912.	3		
	FEP	<i>Hum/Soc Sci Elective - Econ</i>	Econ	one of these	1. Econ 1100 Principles of Microeconomics 2. Econ 1200 Principles of Macroeconomics		3	
			Math	2222	Calculus with Analytic Geometry III	Prerequisites: Math 1215 or Math 1221 with a grade of "C" or better.	4	
			Min Eng	3913	Mineral Identification and Exploration	Prerequisites: Either both Chem 1310 and Chem 1319 or Chem 1351; either Geo Eng 1150 or Geology 1110.	3	
			Civ Eng	2200	Engineering Statics	Prerequisites: Physics 1135 or Physics 1111 with a grade of "C" or better; Math 1215 or Math 1221 with a grade of "C" or better; preceded or accompanied by Math 2222.	3	
			Min Eng	2925	Surveying for Mineral Engineers	Prerequisite: Preceded or accompanied by Min Eng 1912.	2	

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Semester 4		Physics	2135	Engineering Physics II	Prerequisites: Physics 1135 or Physics 1111, Math 1221 or Math 1215.	4	
		Min Eng	2412	Principles of Mineral Processing		3	
		Math	3304	Elementary Differential Equations	Prerequisite: Math 2222 with a grade of "C" or better.	3	
		Mech Eng	2527	Thermal Analysis	Prerequisites: Math 1215 (or 1221), Physics 1135.	3	
		Mech Eng	2350	Engineering Mechanics-Dynamics	Prerequisites: A grade of "C" or better in each of Civ Eng 2200 and Math 2222.	2	

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Semester 5		Geology	3310	Structural Geology	Prerequisites: GEOLOGY 1110 or GEO ENG 1111.	3		
		Civ Eng	2210	Mechanics of Materials	Prerequisite: Civ Eng 2200 with grade of "C" or better.	3		
			one of these	1. Nuc Eng 3221 Reactor Fluid Mechanics 2. Civ Eng 3330 Engineering Fluid Mechanics	1. Prerequisites: Math 3304, Junior standing. 2. Prerequisites: Mech Eng 2350 or Mech Eng 2340, and MATH 3304, each with a grade of "C" or better.	3		
			Min Eng	4932	Underground Mining Methods and Equipment	1. Prerequisite: Preceded or accompanied by Min Eng 3913.	3	
			Stat	one of these	1. Stat 3113 Applied Engineering Statistics 2. Stat 3115 Engineering Statistics	1. Prerequisite: Math 1215 or 1221 with a grade of "C" or better. 2. Prerequisite: Math 1215 or 1221 with a grade of "C" or better.	3	
		<i>Hum/Soc Sci Elective Economics</i>	Econ	3512	Mining Industry Economics	Prerequisite: Econ 1100 or 1200. (Co-listed with Min Eng 3512).	3	

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Semester 6		English	one of these	1. English 1600 Introduction to Technical Communication 2. English 1160 Writing and Research 3. English 3560 Technical Writing	1. Prerequisite: English 1120. (Co-listed with TCH COM 1600). 2. Prerequisite: English 1120. 3. Prerequisites: English 1120 and second-semester junior standing.	3	
		Min Eng	4522	Ore Reserve Analysis and Geostatistics	Prerequisite: Stat 3113 or Stat 3115.	3	
		Min Eng	4512	Mine Management	Prerequisite: Completion of 50 credits toward Mining Engineering degree. (Co-listed ECON 4512).	3	
		Min Eng	4933	Surface Mining Methods and Equipment	Prerequisites: Min Eng 3912; Min Eng 3512; preceded or accompanied by Min Eng 4823.	3	
		Min Eng	4823	Rock Mechanics	Prerequisites: Physics 2135; Civ Eng 2210; Geology 3310.	3	

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Semester 7		Min Eng	5612	Principles of Explosives Engineering	Prerequisites: Min Eng 2126; successful background check. (Co-listed with Exp Eng 5612).	3	
		Min Eng	4912	Mine Power and Drainage	Prerequisites: Chem 3410 and Civ Eng 3330.	3	
		<i>Hum/Soc Sci Elective</i>	various	one of these	Course chosen from Requirements for Humanities and Social Sciences Courses for Engineering Degrees at ugs.mst.edu. Foreign language courses can be considered to be one of these courses. (Students may receive humanities credit for foreign language courses in their native tongue only if the course is at the 4000 or 5000 level.)	3	
		Min Eng	4113	Mine Atmosphere Control	Prerequisites: Chem 3410 and Civ Eng 3330.	3	
		Min Eng	4096	Computer Aided Mine Design	Prerequisites: Min Eng 4522, Min Eng 4932, and Min Eng 4933.	3	

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Semester 8		Min Eng	4742	Environmental Aspects of Mining	Prerequisites: Co-requisites: MIN ENG 4933 or GEO ENG 5441 or ENV ENG 5619. (Co-listed with GEO ENG 4276).	3	
		Min Eng	4097	Capstone Design Project	Prerequisite: Min Eng 4096.	4	
	<i>Technical Elective</i>	various	one of these	Course, chosen from one of the following emphasis areas and approved by the student's advisor: explosives engineering, quarrying, coal, mining and the environment, mining health and safety, or sustainable development. See catalog.	Prerequisites vary.	3	
	<i>Hum/Soc Sci Elective - Upper Level</i>	various	one of these	Course chosen from Requirements for Humanities and Social Sciences Courses for Engineering Degrees at ugs.mst.edu. Foreign language courses can be considered to be one of these courses. (Students may receive humanities credit for foreign language courses in their native tongue only if the course is at the 4000 or 5000 level.)	Prerequisites vary.	3	

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Total = 128