

Name:

Key:

Done
In Progress
Possible based on prerequisites

2016-2017 Mining Engineering Curriculum

This chart was prepared by Freshman Engineering using the 2016-2017 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	
			Geo Eng	1150	Physical & Environmental Geology	Prerequisite: Entrance requirements. (Co-listed with Geology 1110).	3	
FEP		Chem	1100	Introduction to Laboratory Safety & Hazardous Materials		1		

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		1	
			Min Eng	2126	Introduction to Mining Safety	Prerequisite: Accompanied or preceded by Min Eng 1912.	1	
			Geology	2611	Physical Mineralogy and Petrology	Prerequisites: Chem 1310 and Chem 1319 or Chem 1351; Geo Eng 1150 or Geology 1110.	3	
	FEP	<i>Hum/Soc Sci Requirement-English</i>	English	1120	Exposition and Argumentation		3	
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Semester 3			Min Eng	3912	Materials Handling in Mines	Prerequisite: 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	
			Geology	3310	Structural Geology	Prerequisites: GEOLOGY 1110 or GEO ENG 1111.	3	
			Geology	3319	Structural Geology Lab	Prerequisites: Preceded or accompanied by GEOLOGY 3310.	1	
			Min Eng	2925	Surveying for Mineral Engineers	Prerequisite: Math 1160, accompanied or preceded 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	
			Mech Eng	2340	Statics and Dynamics	Prerequisites: A grade of "C" or better in Physics 1135 or Physics 1111; preceded or accompanied by Math 2222.	3	
			Math	3304	Elementary Differential Equations	Prerequisite: Math 2222 with a grade of "C" or better.	3	
			Chem	3410	Chemical Thermodynamics I	Prerequisites: Physics 1111 or Physics 1135; accompanied or preceded by either Math 1215 or Math 1221.	3	
		<i>Hum/Soc Sci Requirement-English</i>	English	1600	Introduction to Technical Communication	Prerequisite: English 1120. (Co-listed with TCH COM 1600).	3	
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Semester 5		Min Eng	3913	Mining Exploration	Prerequisites: Geology 2611.	3	
		Civ Eng	2210	Mechanics of Materials	Prerequisite: Civ Eng 2200 with grade of "C" or better.	3	
		Civ Eng	3330	Engineering Fluid Mechanics	Prerequisites: Mech Eng 2350 or Mech Eng 2340, and MATH 3304, each with a grade of "C" or better.	3	
		Min Eng	3412	Principles of Mineral Processing		3	
		Stat	3113	Applied Engineering Statistics	Prerequisite: Math 1215 or 1221 with a grade of "C" or better.	3	
		<i>Hum/Soc Sci Requirement - Econ</i>	Econ	3512	Mining Industry Economics	Prerequisite: Econ 1100 or 1200. (Co-listed with Min Eng 3512).	3

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Semester 6		Min Eng	4522	Ore Reserve Analysis and Geostatistics	Prerequisites: Math 3304, Stat 3113.	3	
		Min Eng	4113	Mine Atmosphere Control	Prerequisites: Chem 3410 and Civ Eng 3330.	3	
		Min Eng	4932	Underground Mining Methods and Equipment	Prerequisites: Min Eng 2924, Min Eng 3512; coreq. Min Eng 3913; Min Eng 4823.	3	
		Min Eng	4933	Surface Mining Methods and Equipment	Prerequisites: Min Eng 3912; Min Eng 2914; Min Eng 3512; coreq. 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; accompanied or preceded by Civ Eng 2715 or Geology 3310 or Geology 2611; 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	
		Min Eng	4824	Soils and Overburden Materials for Mining Engineering	Prerequisites: Civ Eng 2210.	2	
		<i>Hum/Soc Sci Elective - Industrial Management</i>	various	one of these 1. Econ 4643 Ethical Problems in a Global Environment 2. Psych 4610 Psychology of Leadership in Organizations 3. Econ 4512 Mine Management	1. 2. Prerequisite: Psych 1101. 3. Prerequisite: Completion of 100 credits in Mining Engineering curriculum. (Co-listed with Econ 4512).	3	
		Min Eng	4096	Mine Design Project I	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	Mine Design Project I	Prerequisites: Min Eng 4096 and completion of 110 hours in the Mining Engineering Curriculum.	4	
	<i>Technical Elective</i>	various	one of these	(FEP) 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	(FEP) Course, chosen from the Approved List of Humanities and Social Science Courses for Engineering Degrees at ugs.mst.edu, at the 2000-level or above which requires as a prerequisite the successful completion of a lower level humanities or social sciences course. Foreign language courses numbered 1180 will be considered to satisfy this requirement. Students may receive humanities credit for foreign language courses in their native tongue only if the course is at the 4000 level.	Prerequisites vary.	3	

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Total = 128