

Name:

Key:

Done
In Progress
Possible based on prerequisites

2017-2018 Civil 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	
	FEP		Chem	1100	Introduction to Laboratory Safety & Hazardous Materials		1	

Semester 1	FEP		Fr Eng	1100	Study & Careers in Engineering		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		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 Requirement-English</i>	English	1120	Exposition and Argumentation		3	
	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	

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Semester 2	FEP		Mech Eng	1720	Introduction to Engineering Design		3	
	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	<i>Hum/Soc Sci Elective - Econ</i>	Econ	one of these	1. Econ 1100 Principles of Microeconomics 2. Econ 1200 Principles of Macroeconomics		3	
		<i>Hum/Soc Sci Elective - Communications</i>	various	one of these	1. English 1160 Writing and Research 2. English 3560 Technical Writing 3. SP&M S 1185 Principles of Speech	1. Prerequisite: English 1120. 2. Prerequisites: English 1120 and second-semester junior standing. 3. Prerequisite: Entrance Requirements	3	

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Semester 3		Civ Eng	2401	Fundamentals of Surveying	Prerequisite: Preceded or accompanied by Math 1214 (or 1208).	3	
		Civ Eng	2003	Engineering Communications and Computations	(Co-listed with Arch Eng 2003).	3	
		Civ Eng	2200	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	
		Math	2222	Calculus with Analytic Geometry III	Prerequisites: Math 1215 or Math 1221 with a grade of "C" or better.	4	
		Physics	2135	Engineering Physics II	Prerequisites: Physics 1135 or Physics 1111, Math 1221 or Math 1215.	4	

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Semester 4		Mech Eng	2350	Engineering Mechanics - Dynamics	Prerequisites: A grade of "C" or better in each of Civ Eng 2200 and Math 2222	2	
		Stat	3113	Applied Engineering Statistics	Prerequisite: Math 1215 or 1221 with a grade of "C" or better.	3	
		Geo Eng	1150	Physical & Environmental Geology	Prerequisite: Entrance requirements. (Co-listed with Geology 1110).	3	
		Civ Eng	2210	Mechanics of Materials	Prerequisite: Civ Eng 2200 with grade of "C" or better.	3	
		Civ Eng	2211	Materials Testing	Prerequisite: Preceded or accompanied by Civ Eng 2210.	1	
		Math	3304	Elementary Differential Equations	Prerequisite: Math 2222 with a grade of "C" or better.	3	

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Semester 5		Eng Mgt	1210	Economic Analysis of Engineering Projects	Prerequisites: Math 1214.	2	
		Civ Eng	3201	Structural Analysis I	Prerequisites: Civ Eng 2200, 2210 each with a grade of "C" or better. (Co-listed with Arch Eng 3201).	3	
		Civ Eng	3715	Fundamentals of Geotechnical Engineering	Prerequisite: Geo Eng 1150 or Arch Eng 2103; Civ Eng 2210; and preceded or accompanied by Civ Eng 3330.	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	
		Civ Eng	2601	Fundamentals of Environmental Engineering and Science	Prerequisites: Chem 1310, Chem 1301, or Chem 1351; Math 1214, Math 1212, or Math 1208. (Co-listed with Env Eng 2601).	3	
		<i>Hum/Soc Sci Elective - Humanities</i>	various	one of these	Humanities course chosen from Requirements for Humanities and Social Sciences Courses for Engineering Degrees at ugs.mst.edu.	Prerequisites vary.	3

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Semester 6		Civ Eng	3116	Construction Materials, Properties and Testing	Prerequisites: Civ Eng 2211 or Min Eng 3812; Civ Eng 3715 or both Geo Eng 1150 and Min Eng 3412.	3	
		Civ Eng	3842	Fundamentals of Building Systems	Prerequisites: Physics 2135, Math 2222, and Junior Standing.	3	
		Civ Eng	3500	Transportation Engineering	Prerequisites: Civ Eng 2401 and Civ Eng 2003.	3	
		Civ Eng	3334	Water Resources Engineering	Prerequisites: Civ Eng 3330 and Stat 3113 with grades of "C" or better.	4	
		Civ Eng	3220	Reinforced Concrete Design	Prerequisite: Civ Eng 3201 with grade of "C" or better. (Co-listed with Arch Eng 3220).	3	

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Semester 7		Civ Eng	4010	Senior Seminar: Engineering in a Global Society	Prerequisite: Senior standing. (Co-listed with Arch Eng and Env Eng 4010).	1	
	<i>Depth Elective</i>	Civ Eng	one of these	Please consult the Department's Advising Center or your academic advisor for guidelines regarding the selection of depth and technical electives. A maximum total of 6 credit hours of independent study (CIV ENG 5000 or CIV ENG 4099 ) can be used as depth or technical electives in the B.S. Civil Engineering curriculum.	Prerequisites vary.	3	
	<i>Depth Elective</i>	Civ Eng	one of these	Please consult the Department's Advising Center or your academic advisor for guidelines regarding the selection of depth and technical electives. A maximum total of 6 credit hours of independent study (CIV ENG 5000 or CIV ENG 4099 ) can be used as depth or technical electives in the B.S. Civil Engineering curriculum.	Prerequisites vary.	3	
		Civ Eng	4448	Fundamentals of Contracts and Construction Engineering	Prerequisite: Senior Standing. (Co-listed with Arch Eng 4448).	3	
		Civ Eng	3210	Structural Design in Metals	Prerequisite: Civ Eng 3201 with a grade of "C" or better. (Co-listed with Arch Eng 3210).	3	
	<i>Humanities</i>	various	one of these	Course chosen from <i>Requirements for Humanities and Social Sciences Courses for Engineering Degrees</i> at <a href="http://ugs.mst.edu">ugs.mst.edu</a> .	Prerequisites vary.	3	

Semester 8		Civ Eng	4097	Senior Design Project	Prerequisite: Civ Eng 4448 or Arch Eng 4448. (Co-listed with Arch Eng 4097 and Env Eng 4097).	3	
	<i>Technical Elective</i>	Civ Eng	one of these	A grade of 'C' or better may be required in CE technical and depth elective prerequisite courses. Refer to the Missouri S&T undergraduate catalog for this prerequisite information. Choose depth electives using Guidelines for Depth and Technical Electives.	Prerequisites vary.	3	
	<i>Depth Elective</i>	Civ Eng	one of these	Please consult the Department's Advising Center or your academic advisor for guidelines regarding the selection of depth and technical electives. A maximum total of 6 credit hours of independent study (CIV ENG 5000 or CIV ENG 4099 ) can be used as depth or technical electives in the B.S. Civil Engineering curriculum.	Prerequisites vary.	3	
	<i>Hum/Soc Sci Elective - Upper Level</i>	various	one of these	Course, chosen from <i>Requirements for Humanities and Social Sciences Courses for Engineering Degrees</i> 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	
	<i>Technical Elective</i>	Civ Eng	one of these	A grade of 'C' or better may be required in CE technical and depth elective prerequisite courses. Refer to the Missouri S&T undergraduate catalog for this prerequisite information. Choose depth electives using Guidelines for Depth and Technical Electives.	Prerequisites vary.	3	

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Total = 129