

Name:

Key:

Done
In Progress
Possible based on prerequisites

2016-2017 Architectural 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	1100	Introduction to Laboratory Safety & Hazardous Materials		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 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 (preferred) 2. History 1300 American History to 1877 3. History 1310 American History Since 1877 4. Pol Sci 1200 American Government		3	
	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	
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	<i>Hum/Soc Sci Elective - Econ</i>	Econ	one of these	1. Econ 1100 Principles of Microeconomics 2. Econ 1200 Principles of Macroeconomics		3	
	FEP		Mech Eng	1720	Introduction to Engineering Design		3	
	FEP		Physics	1135	Engineering Physics I	Prerequisite: Math 1208 or 1214	4	

Semester 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	
		Civ Eng	2401	Fundamentals of Surveying	Prerequisite: Preceded or accompanied by Math 1214 (or 1208).	3	
		Arch Eng	2003	Engineering Communications and Computations	(Co-listed with Civ Eng 2003)	3	

17

Semester 4		Stat	3113	Applied Engineering Statistics	Prerequisite: Math 1215 or 1221 with a grade of "C" or better.	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		
		Arch Eng	2103	Architectural Materials and Methods of Construction	Prerequisites: Chem 1310, Chem 1319 and Sophomore standing.	3		
		<i>Hum/Soc Sci Requirement - Art</i>	Art	3203	Architectural Design I	Prerequisite: Sophomore standing.	3	
			Math	3304	Elementary Differential Equations	Prerequisite: Math 2222 with a grade of "C" or better.	3	
			Mech Eng	2350	Engineering Mechanics - Dynamics	Prerequisites: A grade of "C" or better in each of Civ Eng 2200 and Math 2222	2	

18

Semester 5		Arch Eng	3201	Structural Analysis I	Prerequisites: Civ Eng 2200, Civ Eng 2210 each with a grade of "C" or better. (Co-listed with Civ Eng 3201).	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	
		Mech Eng	2527	Thermal Analysis	Prerequisites: Math 1215 (or 1221), Physics 1135.	3	
		Arch Eng	3803	Building Electrical Systems	Prerequisites: Math 3304 and Physics 2135.	3	
		Arch Eng	3804	Architectural Design II	Prerequisite: Art 3203.	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	



Semester 6		Arch Eng	3805	Building Lighting Systems	Prerequisites: Arch Eng 3803 and Arch Eng 3804.	3		
		Arch Eng	5872	Environmental Controls	Prerequisites: Mech Eng 3521 and accompanied or preceded by Mech Eng 3525; or Mech Eng 2527 and Civ Eng 3330. (Co-listed with Mech Eng 5571).	3		
		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		
		<i>Hum/Soc Sci Requirement - History</i>	History	2510	History of Technology	Prerequisite: History 1100 or 1200 or 1300 or 1310.	3	
		Arch Eng	3220	Reinforced Concrete Design	Prerequisite: Arch Eng 3201 with grade of "C" or better. (Co-listed with Civ Eng 3220).	3		

15

Semester 7		Arch Eng	4010	Senior Seminar: Engineering in a Global Society	Prerequisite: Senior standing. (Co-listed with Civ Eng and Env Eng 4010).	1		
		Arch Eng	3210	Structural Design in Metals	Prerequisite: Arch Eng 3201 with grade of "C" or better. (Co-listed with Cv Eng 3210).	3		
		Arch Eng	4448	Fundamentals of Contracts and Construction Engineering	Prerequisite: Senior Standing. (Co-listed with Civ Eng 4448).	3		
		<i>Hum/Soc Sci Requirement - History</i>	History	4550	Architecture, Technology, & Society; 1750 to Present	Prerequisites: History 1100 or 1200 or 1300 or 1310 or Pol Sci 1200. Recommended: Junior or Senior Standing. Recommended for Arch Eng majors: Art 3203 taken prior to course.	3	
		<i>Technical Elective - Emphasis Area</i>	various	one of these	Choose technical electives from approved lists under Emphasis Areas for Architectural Engineering Students. A maximum of 3 credits of independent study (ARCH ENG 5000 or ARCH ENG 4099) may be used as a technical elective. Additional independent study course may be taken but will not count towards the B.S. Architectural Engineering degree.	Prerequisites vary.	3	
		Eng Mgt	1210	Economic Analysis of Engineering Projects	Prerequisites: Math 1214.	2		

15

Semester 8		Arch Eng	4097	Senior Design Project	Prerequisite: Arch Eng 4448 or Civ Eng 4448. (Co-listed with Civ Eng 4097 and Env Eng 4097).	3	
	<i>Technical Elective - Emphasis Area</i>	various	one of these	Choose technical electives from approved lists under Emphasis Areas for Architectural Engineering Students. A maximum of 3 credits of independent study (ARCH ENG 5000 or ARCH ENG 4099) may be used as a technical elective. Additional independent study course may be taken but will not count towards the B.S. Architectural Engineering degree.	Prerequisites vary.	3	
		Civ Eng	4729	Foundation Engineering	Prerequisite: Civ Eng 3715.	3	
	<i>Hum/Soc Sci Elective</i>	various	one of these	<i>(FEP) Course chosen from the Approved List of Humanities and Social Science Courses for Engineering Degrees at <a href="http://ugs.mst.edu">ugs.mst.edu</a>.</i>	Prerequisites vary.	3	
	<i>Basic Science Elective</i>	various	one of these	<ol style="list-style-type: none"> <li>1. Chem 1301 General Chemistry for Non-Science Majors</li> <li>2. Geology 1111 Introduction to Physical Geology</li> <li>3. Geology 2610 Mineralogy and Crystallography</li> <li>4. Bio Sci 1213 Principles of Biology</li> <li>5. Bio Sci 1943 Introduction to Human Anatomy and Physiology I</li> <li>6. Physics 1505 Introductory Astronomy</li> <li>7. Physics 2305 Introduction to Modern Physics</li> </ol>	<ol style="list-style-type: none"> <li>1. Prerequisite: Entrance requirements.</li> <li>2. Prerequisite: Entrance requirements.</li> <li>3. Prerequisites: Chem 1310 and Chem 1319.</li> <li>4. Prerequisite: Entrance requirements.</li> <li>5. Prerequisite: Any high school or college Biology course.</li> <li>6.</li> <li>7. Prerequisites: Math 2222 and Physics 2135 or 2111.</li> </ol>	3	

15

Total = 129