

# Missouri S&T — Mission College

## General Engineering Transfer Guide

Effective Fall 2015

The following course work will apply to Missouri S&T degree requirements as outlined below.

Mission College					Missouri S&T		
MC #	Title	Hours		S&T #	Title	Hours	
<b>Engineering Degree Requirements: Take all Courses</b>							
<b>General Pre-Engineering Curriculum</b>	Math prerequisites. While they are not part of Missouri S&T engineering degree requirements, algebra and trigonometry skills are critical to success in calculus. Students should follow math placement testing and advising recommendations at their schools.						
	MATH 003A (H)* and MATH 003B (H)*	Analytic Geometry and Calculus I and Analytic Geometry and Calculus II	10	MATH 1214 and MATH 1215	Calculus for Engineers I and Calculus for Engineers II	8	
	MATH 004A	Multivariable Calculus	4	MATH 2222	Calculus with Analytic Geometry III	4	
	MATH 004B	Differential Equations	4	MATH 3304	Elementary Differential Equations	3	
	PHYS 004A and PHYS 004 B and PHYS 004C	Engineering Physics-Mechanics and Engineering Physics-Electricity and Magnetism and Engineering Physics-Light and Heat	5 4 4	PHYS 1135 and PHYS 2135	Engineering Physics I and Engineering Physics II	4 4	
	CHEM 001A (H)*	General Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
	ENGR 010 and ENGR 025	Intro to Engineering and Engineering Graphics and Design	4 4	FR ENG 1100 and MECH ENG 1720	Study and Careers in Engineering and Engineering Design with Computer Applications	1 3	
	ENGL 001A	English Composition	3	ENGLISH 1120	Exposition and Argumentation	3	
	See Degree Requirements below and Notes on back.				Second Communication Requirement*	3	
	ECON 001B or ECON 001A	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3	
	HIST 017A (H)* or HIST 017B (H)* or HIST 004B (H)* or POLIT 001 (H)*	History of the United States to 1877 or History of the United States since 1877 or History of Western Civilization or American Government	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3	
	Free Electives: See Other Required Courses* on back. Electives should be selected in consultation with your advisor. Free electives may not include remedial/deficiency courses, algebra, trigonometry, pre-calculus, or extra credits in required courses.					Free Electives: See Other Required Courses* on back.	
Total Hours			32	Total Hours		32	
<b>Humanities and Social Sciences Electives: Select 2 Additional Courses from the Academic Areas Below*</b>							
See your advisor and Missouri S&T Approved List of Humanities and Social Sciences for more options or email transfercredit@mst.edu.							
Students may also transfer one upper-level humanities/social sciences elective to Missouri S&T.							
<b>Humanities and Social Sciences Electives</b>	HIST 017A (H)*	History of the United States to 1877	3	HISTORY 1300	American History to 1877	3	
	HIST 017B (H)*	History of the United States since 1877	3	HISTORY 1310	American History since 1877	3	
	HIST 004B (H)*	History of Western Civilization	3	HISTORY 1200	Modern Western Civilization	3	
	POLIT 001 (H)*	American Government	3	POL SCI 1200	American Government	3	
	ART 004	Art Appreciation	3	ART 1180	Art Appreciation	3	
	PSYCH 001 (H)*	General Psychology	3	PSYCH 1101	General Psychology	3	
	PHIL 001	Intro to Philosophy	3	PHILOS 1105	Intro to Philosophy	3	
	ENGL 005A or ENGL 006B	English Literature through 18th Century or Survey of World Literature or other literature elective	3		Literature required for MechE, AeroE	3	
	PHIL 003	Intro to Ethics	3		Ethics required for AeroE	3	
		See your advisor for course options.			Other Social Science elective: history, economics, political science, sociology, psychology.	3	
		See your advisor for course options.			Other Humanities elective: philosophy, fine art, literature, foreign language.	3	
	Total Hours			6-8	Total Hours		6-8
<b>Additional Degree Requirements*</b>							
The following additional courses will satisfy Missouri S&T engineering degree requirements for some, but not all, engineering degrees.						<b>Check</b>	
Requirements and Notes for Missouri S&T Engineering Majors (see page 2) for specific major requirements.							
<b>Additional Courses (See Back Page for Individual Engineering Major Requirements)</b>	ENGL 001C	Clear Thinking in Writing	3	ENGLISH 1160	Writing and Research	3	
	COMM 001	Public Speaking	3	SPMS 1185	Principles of Speech	3	
	MATH 004C	Linear Algebra	4	MATH 3108	Linear Algebra I	3	
	CHEM 001B (H)*	General Chemistry	5	CHEM 1320, 1510	General Chemistry II and Qualitative Analysis	5	
	CIS 040	C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3	
	CIS 041	Advanced C++ Programming	3	CS 1570, 1580	Intro to Programming and Lab (C++)	4	
	BIO SC 010	Intro to Biology	3	BIO SCI 1113	General Biology	4	
	ENGR 023	Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
	ENGR 026	Engineering Materials	4	MET ENG 2110	Metallurgy for Engineers	3	
	<b>Maximum credit hours to be transferred to Missouri S&amp;T degree requirements.</b>						<b>68</b>
(H)* Indicates this course may be taken in regular or honors format.							
Missouri S&T residency requirements: The last 60 hours of any Missouri S&T degree must be completed at Missouri S&T.							
Students must receive special permission from Missouri S&T to apply more than the maximum credit hours listed above toward the Missouri S&T degree.							
Students are not required to complete all courses on this guide before transferring to Missouri S&T.							
A grade of "C" or better is required in calculus and physics, as well as other courses depending on academic major.							
*See notes for individual majors on second page.							
**A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100.							