

Engineering Students take all Group 1 – Core Requirements and Group 2 – Major Requirements for major of choice. Math prerequisites: While they are not part of Missouri S&T engineering degree requirements, algebra and trigonometry skills are critical to success in calculus. To prepare for entry into calculus, students should follow math placement testing and advising recommendations at MBU.

CHEMICAL ENGINEERING

Pre-Requisite Requirements: (not part of Missouri S&T requirements. May be needed at MBU for placement in higher level courses.)

Course Name	Grade	Term	MOTR #
MATH 133 – College Algebra OR	_____	_____	MOTR MATH 130
MATH 155 – Precalculus	_____	_____	MOTR MATH 150
CHEM 113 + 111 – Introduction to Chemistry with Laboratory	_____	_____	MOTR CHEM 100L

Group 1 – Core Requirements: 9 courses, as listed below (34 hours)

Course Name	Grade	Term	MOTR #
MATH 164 – Calculus I	_____	_____	
MATH 254 – Calculus II	_____	_____	
MATH 264 – Calculus III	_____	_____	
MATH 363 – Differential Equations	_____	_____	
PHYS 213 + 211 – General Physics I with Laboratory	_____	_____	MOTR PHYS 200L
PHYS 223 + 221 – General Physics II with Laboratory	_____	_____	
CHEM 130 + 133 + 132 – General Chemistry I with Laboratory	_____	_____	MOTR CHEM 150L
ENGL 113 – English Composition I	_____	_____	MOTR ENGL 100
ECON 113 – Macroeconomics OR	_____	_____	MOTR ECON 101
ECON 123 – Microeconomics	_____	_____	MOTR ECON 102

Group 2 – Major Requirements: 8 classes as listed below (30 hours)

Course Name	Grade	Term	MOTR #
ENGL 123 – English Composition II	_____	_____	MOTR ENGL 200
HIUS 213 – United States History I OR	_____	_____	MOTR HIST 101
HIUS 223 – United States History II OR	_____	_____	MOTR HIST 102
HIWO 123 – World History II OR	_____	_____	MOTR HIST 201
POLS 103 – U.S. and MO Government and Constitution	_____	_____	MOTR POSC 101
CHEM 140 + 142 + 143 – General Chemistry II with Laboratory	_____	_____	
CHEM 310 + 312 + 313 – Organic Chemistry I with Laboratory	_____	_____	
CHEM 320 + 322 + 323 – Organic Chemistry II with Laboratory	_____	_____	
BCSC 253 – C++ Programming for Science and Mathematics	_____	_____	
Humanities/Social Science Elective	_____	_____	
Humanities/Social Science Elective	_____	_____	

Free Electives: some programs allow Free Electives as indicated within each major. Free Electives should be selected in consultation with your advisor and may not include remedial/deficiency courses, algebra, trigonometry, pre-calculus, or extra credits in required courses.

Humanities/Social Science (HSS) Electives: HSS electives may include any history, economics, political science, sociology, psychology, philosophy, fine art, literature, or foreign language. Missouri S&T approved HSS courses are listed at ugs.mst.edu. Consult with your academic advisor when selecting these courses or email transfer@mst.edu with questions.