James Madison University Advising Guide

BRCC Associate of Science Degree – Engineering Specialization Curriculum Outline and JMU Advising Guide for a major in Engineering.

MTH 161 start (3 years to completion)

Note that starting in MTH 161 will require three years to complete the math/physics sequence, and there is no way to do this at a full time load for all six semesters. Plan accordingly.

First Semester (Fall I)

Course #	Course Description	Credits
ENG 111	College Composition I	3
HIS ____	History (101, 102, 111, 112, 121, or 122)	3
MTH 161	Precalculus I	3
SDV	Student Development (SDV 101 "for STEM" strongly recommended, but SDV 100 may be used)	1
		10

Second Semester (Spring I)

Course #	Course Description	Credits
ENG 112	College Composition II	3
MTH 162	Precalculus II	3
_____	Social Science Elective	3
_____	Humanities/Fine Arts Elective	3
		12

Third Semester (Fall II)

Course #	Course Description	Credits
MTH 263	Calculus I	4
CHM 111	College Chemistry I	4
EGR 121	Foundations of Engineering	2
ENG ____	Literature Elective	3
		13

Fourth Semester (Spring II)

Course #	Course Description	Credits
EGR 140	Engineering Mechanics - Statics	3
EGR 122	Engineering Design	3
MTH 264	Calculus II	4
CHM 112	College Chemistry II [or Physical Geology]	4
		14

Fifth Semester (Fall III)

Course #	Course Description	Credits
PHY 241	University Physics I	4
_____	Engineering Technical Elective (see https://catalog.brcc.edu/programs-study/science-engineering/#approvedelectivestext for options. EGR 126 or CSC 201, or EGR 206 are preferred)	3-4
MTH 265	Calculus III	4
		12

Sixth Semester (Spring III)

Course #	Course Description	Credits
MTH 267	Differential Equations	3
MTH 266	Linear Algebra	3
PHY 242	University Physics II	4
EGR 245	Engineering Mechanics - Dynamics	3
		13

Total credits required for Associate of Science Engineering Specialization degree/JMU Engineering requirements – 74-75