

James Madison University Advising Guide

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

MTH 167 start (2 years to completion with summer)

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 167	Precalculus with Trigonometry	5
CHM 111	General Chemistry I	4
EGR 121	Introduction to Engineering	2
SDV	Student Development (SDV 101 "for STEM" strongly recommended, but SDV 100 may be used)	1
		18

Second Semester (Spring I)

Course #	Course Description	Credits
ENG 112	College Composition II	3
_____	Engineering Technical Elective (see https://catalog.brcc.edu/programs-study/science-engineering/#approvedelectivestext for options. CSC 221 is recommended.)	3-4
MTH 263	Calculus I	4
EGR 122	Engineering Design	3
CHM 112	General Chemistry II	4
		17-18

Summer catch-up:

MTH 264	Calculus II	4
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Third Semester (Fall II)

Course #	Course Description	Credits
ENG ____	Literature Elective	3
PHY 241	University Physics I	4
EGR 240	Statics	3
MTH 265	Calculus III	4
_____	Social Science Elective	3
		17

Fourth Semester (Spring II)

Course #	Course Description	Credits
MTH 267	Differential Equations	3
MTH 266	Linear Algebra	3
PHY 242	University Physics II	4
_____	Humanities/Fine Arts Elective	3
EGR 245	Engineering Mechanics - Dynamics	3
		16

Total credits required for Associate of Science Engineering Specialization degree/JMU Engineering requirements – 72-73