

Minimum Hours: 133

Engineering (B.S.E.)

Mechanical Engineering option

2021-2022 Catalog

FRESHMAN – Fall Semester		Hours	FRESHMAN – Spring Semester		Hours
COL 100 Bryan Gateway Seminar		1	CSCI 116 Programming I		3
ENG 109 College Writing I <u>OR</u> ENG 111 Freshman English*		3	CT 113 Critical Survey of Worldviews		3
HIS general survey course (100/200 level)		3	PHYS 245 College Physics I w/Lab		3/1
MATH elective**		3	MATH 221 Calculus II		4
CHEM 131 General Chemistry I		4	EGR 124 Intro to Engineering Design-Art of Engineering		3
EGR 121 Introduction to Engineering		2			
			(ENG 110 College Writing II)*		
TOTAL HOURS		16	TOTAL HOURS		17

SOPHOMORE – Fall Semester			SOPHOMORE – Spring Semester		
CT 209 CLF: Missional Engineering		1	Choose ONE of the following: PSY 111, 228, 330, or 334		3
EGR 223 Engineering Mechanics – Statics w/Lab		3/1	CT 210 CLF: Biblical Environmentalism		1
EGR 331 Data Visualization		3	EGR 222 Circuits and Instrumentation		3
EGR 347 Engineering Professional Development		1	EGR 224 Engineering Mechanics - Dynamics		3
MATH 222 Calculus III		4	EGR 226 Mechanics of Materials w/Lab		3/1
PHYS 246 College Physics II w/Lab		3/1	MATH 242 Statistics for Scientists & Engineers		3
TOTAL HOURS		17	TOTAL HOURS		17

JUNIOR – Fall Semester			JUNIOR – Spring Semester		
EGME 321 Engineering Materials		3	BIB 224 New Testament Literature & Interpretation		3
EGME 323 Manufacturing Engineering		3	CT 105 CLF: Engineering Service		1
EGR 321 Design of Experiments		3	Choose ONE of the following: ENG 100/200, FA 211, FLM 210, MUS 100/200, or THT 100/200 (excludes ENG 245, lessons, ensembles, practicum)		3
EGR 323 Engineering Thermodynamics w/Lab		3/1	EGME 424 Machine Component Design		3
MATH 326 Differential Equations		4	EGR 322 Fluid Mechanics		4
			EGR 422 Heat Transfer		3
TOTAL HOURS		17	TOTAL HOURS		17

SENIOR – Fall Semester			SENIOR – Spring Semester		
BIB 222 Old Testament Literature & Interpretation		3	PHIL 424 Engineering Ethics		3
COMM 111 Intro to Communication		3	EGME 422 Kinematics & Robotics		3
EGME 423 Quality Engineering		3	EGME Elective		3
EGME Elective		3	EGR 492 Capstone Senior Design II		4
EGR 225 Engineering Economics		2	EGR Elective (300/400 level)		3
EGR 491 Capstone Senior Design I		2			
TOTAL HOURS		16	TOTAL HOURS		16

*Students are required to take either ENG 109/110 College Writing I *and* II (6 credits) *OR* ENG 111 Freshman English (3 credits). Placement in ENG 111 requires an ACT English score of at least 21 *OR* an SAT Evidence-Based Reading & Writing score of at least 530 *OR* CLT score of at least 68. Students who are placed in the ENG 109-110 sequence will need to take ENG 110 in the spring semester of the freshman year.

** Choice of MATH elective should prepare student to enroll in MATH 221 Calculus II which is required in the major. Students taking Math 117 Precalculus will start the calculus sequence with Math 122 Calculus I in the second semester.

This document is to be used for planning purposes only. Please refer to the academic catalog for complete information. Course planning should be completed in consultation with your academic adviser. Not all courses are offered every semester or every year.