

Minimum Hours: 133

Engineering (B.S.E.)

Bioengineering option

2020-2021 Catalog

FRESHMAN – Fall Semester		Hours	FRESHMAN – Spring Semester		Hours
COL 100 Bryan Gateway Seminar		1	CT 113 Critical Survey of Worldviews		3
ENG 109 College Writing I <u>OR</u> ENG 111 Freshman English*		3	PHYS 245 College Physics I		4
CT 209 CLF: Missional Engineering		1	CSCI 116 Programming I		3
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		3	EGR 122 Engineering Service		1
			(ENG 110 College Writing II)*		
TOTAL HOURS		15	TOTAL HOURS		18

SOPHOMORE – Fall Semester		Hours	SOPHOMORE – Spring Semester		Hours
PHYS 246 College Physics II		4	CT 210 CLF: Biblical Environmentalism		1
MATH 222 Calculus III		4	MATH 326 Differential Equations		4
EGR 223 Engineering Mechanics - Statics		3	EGR 222 Circuits and Instrumentation		3
EGR 331 Data Visualization		3	EGR 224 Engineering Mechanics - Dynamics		3
BIO 111/111L Introduction to Biology w/ Lab		3/1	EGR 226 Mechanics of Materials		3
			BIO 211 Principles of Biology		4
TOTAL HOURS		18	TOTAL HOURS		18

JUNIOR – Fall Semester		Hours	JUNIOR – Spring Semester		Hours
BIB 222 Old Testament Literature & Interpretation		3	BIB 224 New Testament Literature & Interpretation		3
CT CLF elective		1	EGR 322 Fluid Mechanics		4
EGR 321 Design of Experiments		3	EGR 422 Heat Transfer		3
EGR 323 Engineering Thermodynamics		3	MATH 242 Statistics for Scientists & Engineers		3
EGR 347 Engineering Professional Development I		1	BIO 324 Advanced Anatomy & Physiology II		4
BIO 323 Advanced Anatomy & Physiology I		4			
TOTAL HOURS		15	TOTAL HOURS		17

SENIOR – Fall Semester		Hours	SENIOR – Spring Semester		Hours
HIS general survey course (100/200 level)		3	Choose ONE of the following: SS 211, PSGS 315, PSY 111, 228, 334		3
COMM 111 Intro to Communication		3	EGR 424 Engineering Ethics		3
Choose ONE of the following: ENG 211, FA 211, MUS 210, THT 111, or FLM 210		3	EGR 492 Capstone Senior Design II		3
EGR 349 Engineering Professional Development II		1	BIO 224 Microbiology		4
EGR 225 Engineering Economics		3	EGR elective (300/400 level)		3
EGR 491 Capstone Senior Design I		3			
TOTAL HOURS		16	TOTAL HOURS		16

*Depending on standardized test scores, students are required to take either ENG 109-110 College Writing I and II (6 credits) OR ENG 111 Freshman English (3 credits). 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.

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.