

Minimum Hours: 133

# Engineering (B.S.E.)

## Environmental option

2022-2023 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	<b>PHYS 245 College Physics I w/Lab</b>		3/1
MATH elective**		3	<b>MATH 221 Calculus II</b>		4
CHEM 131 General Chemistry I		4	<b>EGR 124 Intro to Engineering Design-Art of Engineering</b>		3
<b>EGR 121 Introduction to Engineering</b>		2	(ENG 110 College Writing II)*		
<b>TOTAL HOURS</b>		<b>16</b>	<b>TOTAL HOURS</b>		<b>17</b>

SOPHOMORE – Fall Semester		SOPHOMORE – Spring Semester	
CT 209 CLF: Missional Engineering	1	<b>CHEM 132 General Chemistry II</b>	4
<b>BIO 111 Introduction to Biology</b>	3	<b>EGR 222 Circuits and Instrumentation</b>	3
<b>EGR 223 Engineering Mechanics – Statics w/Lab</b>	3/1	<b>EGR 224 Engineering Mechanics - Dynamics</b>	3
<b>MATH 222 Calculus III</b>	4	<b>EGR 226 Mechanics of Materials w/Lab</b>	3/1
<b>PHYS 246 College Physics II w/Lab</b>	3/1	<b>MATH 242 Statistics for Scientists &amp; Engineers</b>	3
<b>EGR 347 Engineering Professional Development</b>	1		
<b>TOTAL HOURS</b>	<b>17</b>	<b>TOTAL HOURS</b>	<b>17</b>

JUNIOR – Fall Semester		JUNIOR – Spring Semester	
BIB 222 Old Testament Literature & Interpretation	3	BIB 224 New Testament Literature & Interpretation	3
<b>EGR 321 Design of Experiments</b>	3	CT 105 CLF: Engineering Service	1
<b>EGR 323 Engineering Thermodynamics w/Lab</b>	3/1	Choose <b>ONE</b> of the following: ENG 100/200, FA 211, FLM 210, MUS 100/200, or THT 100/200 (excludes ENG 245, lessons, ensembles, practicums)	3
<b>EGR 331 Data Visualization</b>	3	<b>EGR 322 Fluid Mechanics</b>	4
<b>MATH 326 Differential Equations</b>	4	<b>EGR 422 Heat Transfer</b>	3
		<b>Environmental Elective***</b>	3
<b>TOTAL HOURS</b>	<b>16</b>	<b>TOTAL HOURS</b>	<b>17</b>

SENIOR – Fall Semester		SENIOR – Spring Semester	
Choose <b>ONE</b> of the following: PSY 111, 228, 330, 334	3	CT 210 CLF: Biblical Environmentalism	1
COMM 111 Intro to Communication	3	PHIL 424 Engineering Ethics	3
<b>EGR 225 Engineering Economics</b>	2	<b>BIO 328 Advanced Microbiology (has prereq)</b>	4
<b>EGR 491 Capstone Senior Design I</b>	2	<b>EGR 492 Capstone Senior Design II</b>	4
<b>Environmental Elective***</b>	4	<b>EGCI 424 Environmental Engineering</b>	3
<b>EGR Elective (300/400 level)</b>	3		
<b>TOTAL HOURS</b>	<b>17</b>	<b>TOTAL HOURS</b>	<b>15</b>

\*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.

\*\*\* Environmental electives- chosen from CHEM 241, 242, EGCI 321, EGCI 426, EGCI 428

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.