

CIVIL ENGINEERING (B.S.) - ONLINE

Important: This degree plan is effective for those starting this degree program in fall 2025 through summer 2026. This degree plan will remain in effect for students who do not break enrollment or who do not change degree programs, concentrations, or cognates.

General Education/Foundational Skills Requirements

Code	Title	Hours
Communication & Information Literacy ¹		
ENGL 101	Composition and Rhetoric	3
	Communications Elective	3
	Information Literacy Elective	3
	Information Literacy Elective	3
Technological Solutions & Quantitative Reasoning ¹		
UNIV 104	Instructional Technology for Successful Online Learning	0-3
	Math Elective MATH 114 or higher	4
Critical Thinking ¹		
RLGN 104	Christian Life and Biblical Worldview ²	4
	Critical Thinking Elective	3
Civic & Global Engagement ¹		
	Cultural Studies Elective	3
Social & Scientific Inquiry ¹		
	Natural Science Elective	4
	Social Science Elective	3
Christianity & Contexts ¹		
BIBL 104	Survey of Old and New Testament	4
THEO 104	Introduction to Theology Survey ²	4
Total Hours		41-44

¹ Refer to the list of approved general education electives before enrolling in foundational skill requirements

² Students transferring in 45 or more UG credit hours will have the requirement of RLGN 104 waived; Students transferring in 60 or more UG credit hours will also have the requirement of THEO 104 waived

Major Requirements

Code	Title	Hours
Major Foundational Courses		
ENGR 270	Technical Communication ^{1,2}	3
MATH 131	Calculus and Analytic Geometry I ^{1,2}	4
MATH 132	Calculus and Analytic Geometry II ^{1,2}	4
PHYS 231	University Physics I ^{1,2,3}	4
Total Hours		15

¹ Courses may also fulfill select general education requirements.

² Minimum grade of 'C' required.

³ Lab Science courses require a lab.

Code	Title	Hours
Major Courses		
BIOL 101	Principles of Biology ¹	3
CHEM 115	Essentials of General Chemistry ^{1,2}	4
ENGI 220	Engineering Economy ¹	3
ENGR 105	Introduction to Engineering I ¹	2
ENGR 115	Introduction to Engineering II ¹	2
ENGR 235	Statics ¹	3
ENGR 240	Dynamics ¹	3
ENGR 315	Fluid Dynamics ¹	3
ENGR 330	Mechanics of Materials ¹	3
ENGR 481	Engineering Design I ¹	3
ENGR 482	Engineering Design II ¹	3
ENGV 205	Computer Aided Design ¹	3
ENGV 225	Surveying ¹	3
ENGV 320	Civil Engineering Lab ^{1,3}	2
ENGV 325	Structural Analysis ¹	3
ENGV 336	Civil Engineering Materials ¹	3
ENGV 345	Soil Mechanics ¹	3
ENGV 355	Civil Engineering Lab II ^{1,3}	2
ENGV 365	Hydraulic Engineering ¹	3
ENGV 380	Project and Construction Management ¹	3
ENGV 395	Geotechnical Engineering ¹	3
ENGV 400	Structural Design ¹	3
ENGV 410	Transportation Engineering ¹	3
ENGV 420	Professional Practice ¹	3
ENGV 435	Highway Engineering ¹	3
ENGV 492	FE Exam	0
PHYS 232	University Physics II ^{1,2}	4
<i>Technical Electives</i>		
	Technical Electives ^{1,4}	3
<i>Quantitative Studies</i>		
ENGR 210	Probability and Statistical Methods for Engineering ¹	3
MATH 430	Multivariable Calculus ¹	3
MATH 432	Applied Differential Equations ¹	3
Total Hours		88

¹ Minimum grade of "C" is required.

² Lab Science courses require a lab.

³ Course offered in Intensive Format.

⁴ Choose from the following courses: ENGV 415, ENGV 440, ENGV 455, or ENGV 460

All applicable prerequisites must be met

Graduation Requirements

- **133** Total hours
- **2.0** Overall grade point average
- **33.25** Hours must be upper-level courses (300-400 level)
- **Grade of 'C'** Minimum required for all courses in the major, quantitative studies, and technical electives
- **25%** Of major taken through Liberty University
- **33.25** Hours must be completed through Liberty University

- **Grad App** Submission of Degree Completion Application must be completed within the last semester of a student's anticipated graduation date

Course Sequence

Freshman Year

First Semester		Hours
ENGL 101	Composition and Rhetoric	3
ENGR 105	Introduction to Engineering I ¹	2
Math Elective	MATH 131 1,2	4
RLGN 104	Christian Life and Biblical Worldview	4
UNIV 104	Instructional Technology for Successful Online Learning	0-3

Hours 13-16

Second Semester

BIBL 104	Survey of Old and New Testament	4
ENGR 115	Introduction to Engineering II ¹	2
Communications Elective	ENGR 270 1,2	3
MATH 132	Calculus and Analytic Geometry II ¹	4
Natural Science Elective	PHYS 231 1,2,3	4

Hours 17

Sophomore Year

Third Semester

ENGI 220	Engineering Economy ¹	3
ENGR 210	Probability and Statistical Methods for Engineering ¹	3
ENGR 235	Statics ¹	3
ENGV 205	Computer Aided Design ¹	3
PHYS 232	University Physics II ^{1,3}	4

Hours 16

Fourth Semester

CHEM 115	Essentials of General Chemistry ^{1,3}	4
ENGR 240	Dynamics ¹	3
ENGR 330	Mechanics of Materials ¹	3
ENGV 225	Surveying ¹	3
MATH 430	Multivariable Calculus ¹	3

Hours 16

Junior Year

Fifth Semester

BIOL 101	Principles of Biology ¹	3
ENGR 315	Fluid Dynamics ¹	3
ENGV 325	Structural Analysis ¹	3
ENGV 336	Civil Engineering Materials ¹	3
ENGV 345	Soil Mechanics ¹	3
ENGV 410	Transportation Engineering ¹	3

Hours 18

Sixth Semester

ENGV 320	Civil Engineering Lab ^{1,4}	2
ENGV 380	Project and Construction Management ¹	3
ENGV 395	Geotechnical Engineering ¹	3
ENGV 400	Structural Design ¹	3
MATH 432	Applied Differential Equations ¹	3

THEO 104	Introduction to Theology Survey	4
Hours		18

Senior Year

Seventh Semester

Information Literacy Elective I ²		3
ENGR 481	Engineering Design I ¹	3
ENGV 355	Civil Engineering Lab II ^{1,4}	2
ENGV 365	Hydraulic Engineering ¹	3
ENGV 420	Professional Practice ¹	3
ENGV 435	Highway Engineering ¹	3

Hours 17

Eighth Semester

Information Literacy Elective II ²		3
Critical Thinking Elective ²		3
Social Sciences Elective ²		3
Cultural Studies Elective ²		3
ENGR 482	Engineering Design II (Cultural Studies Elective) ¹	3
ENGV 492	FE Exam	0
Technical Elective ^{1,5}		3

Hours 18

Total Hours 133-136

¹ Minimum grade of "C" is required.

² Refer to the list of approved general education electives here before enrolling in foundational skills requirements.

³ Lab Science courses require a lab.

⁴ Course offered in Intensive Format.

⁵ Choose from the following courses: ENGV 415, ENGV 440, ENGV 455, or ENGV 460