

CIVIL ENGINEERING (B.S.) - RESIDENTIAL

Important: This degree plan is effective for those starting this degree program in fall 2022 through summer 2023. 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
INQR 101	Inquiry	1
Communications Elective		3
Information Literacy Elective		3
Information Literacy Elective		3
Technological Solutions & Quantitative Reasoning ¹		
UNIV 101	Foundational Skills	1
Math Elective	MATH 114 or higher	4
Technology Competency ²		0-3
Critical Thinking ¹		
RLGN 105	Introduction to Biblical Worldview ³	2
RSCH 201	Research	3
Critical Thinking Elective		3
Civic & Global Engagement ¹		
EVAN 101	Evangelism and the Christian Life ³	2
Cultural Studies Elective		3
Social & Scientific Inquiry ¹		
Natural Science Elective		4
Social Science Elective		3
Christianity & Contexts ¹		
BIBL 105	Old Testament Survey	2
BIBL 110	New Testament Survey	2
THEO 201	Theology Survey I ³	2
THEO 202	Theology Survey II ³	2
Total Hours		46-49

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

² All students must pass the Computer Assessment OR complete applicable INFT course

³ Students transferring in 45 or more UG credit hours will have the requirements of RLGN 105 Introduction to Biblical Worldview (2 c.h.) & EVAN 101 Evangelism and the Christian Life (2 c.h.) waived; Students transferring in 60 or more UG credit hours will also have the requirements of THEO 201 Theology Survey I (2 c.h.) & THEO 202 Theology Survey II (2 c.h.) waived

Major Requirements

Code	Title	Hours
Major Foundational Courses		
ENGR 270	Technical Communication ¹	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}	4
Total Hours		15

¹ Course may fulfill select general education requirements

² Minimum grade of 'C' required

Code	Title	Hours
Core Courses		
CHEM 121	General Chemistry I	4
ENGI 220	Engineering Economy	3
ENGR 102	Introduction to Engineering	1
ENGR 110	Introduction to Engineering Fundamentals	3
ENGR 235	Statics	3
ENGR 240	Dynamics	3
ENGR 315	Fluid Dynamics	3
ENGR 330	Mechanics of Materials	3
ENGR 381	Introduction to Optimum Design	3
ENGR 481	Engineering Design I	3
ENGR 482	Engineering Design II	3
ENGV 205	Computer Aided Design	1
ENGV 225	Surveying	2
ENGV 320	Civil Engineering Lab	2
ENGV 325	Structural Analysis	3
ENGV 345	Soil Mechanics	3
ENGV 355	Civil Engineering Lab II	2
ENGV 365	Hydraulic Engineering	3
ENGV 380	Project and Construction Management	3
ENGV 390	Steel Structure Design	3
ENGV 395	Geotechnical Engineering	3
ENGV 410	Transportation Engineering	3
ENGV 420	Professional Practice	2
ENGV 425	Concrete Structure Design	3
ENGV 492	FE Exam	0
Science Elective ¹		3
Total Hours		68

¹ Choose from the following approved science courses: BIOL 101 Principles of Biology (3 c.h.), ENVR 215 Principles of Environmental Science (3 c.h.), or ENVR 220 Physical Geology (3 c.h.)

Code	Title	Hours
Technical Electives		
Technical Elective ¹		3
Total Hours		3

¹ Choose from the following courses: ENGV 415 Special Topics in Construction Engineering (3 c.h.), ENGV 440 Special Topics in

Structural Engineering (3 c.h.), ENGV 455 Special Topics Geotechnical Engineering (3 c.h.), or ENGV 460 Special Topics in Transportation Engineering (3 c.h.)

Code	Title	Hours
Quantitative Studies Courses		
ENGR 133	Calculus with MATLAB	1
ENGR 210	Probability and Statistical Methods for Engineering	3
MATH 231	Calculus and Analytical Geometry III	4
MATH 334	Differential Equations	3
PHYS 232	University Physics II	4
Total Hours		15

All applicable prerequisites must be met

Graduation Requirements

- **136** Total hours
- **2.0** Overall grade point average
- **34** Hours must be upper-level courses (300-400 level)
- **Grade of 'C'** Minimum required for all upper-level courses in the major
- **25%** Of major, including technical electives and quantitative studies, taken through Liberty University
- **34** 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
- **CSER** All requirements must be satisfied before a degree will be awarded