

LIBERTY

UNIVERSITY.

ONLINE

Bachelor of Science in Civil Engineering

2021-2022 Degree Completion Plan

Important: This degree plan is effective for those starting this degree program in fall 2021 through summer 2022. 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 (41-44 hours)

Course		Hrs	Sem	Grade
Communication & Information Literacy (12 hours)¹				
ENGL 101	Composition & Rhetoric	3	_____	_____
_____	Communications Elective	3	_____	_____
_____	Information Literacy Elective	3	_____	_____
_____	Information Literacy Elective	3	_____	_____

Technological Solutions & Quantitative Reasoning (4-7 hours)¹

UNIV 104	Instructional Tech. for Online Learning	0-3	_____	_____
MATH _____	Math Elective (MATH 114 or higher)	4	_____	_____

Critical Thinking (7 hours)¹

RLGN 104	Christian Life & Biblical Worldview ²	4	_____	_____
_____	Critical Thinking Elective	3	_____	_____

Civic & Global Engagement (3 hours)¹

_____	Cultural Studies Elective	3	_____	_____
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Social & Scientific Inquiry (7 hours)¹

_____	Natural Science Elective	4	_____	_____
_____	Social Science Elective	3	_____	_____

Christianity & Contexts (8 hours)¹

BIBL 104	Survey of Old & New Testament	4	_____	_____
THEO 104	Introduction to Theology Survey ²	4	_____	_____

Course		Hrs	Sem	Grade
Major Foundational Courses (4-15 hours)				
ENGR 270	Technical Communication ³	3	_____	_____
MATH 131	Calculus & Analytical Geometry I ^{3,4}	4	_____	_____
MATH 132	Calculus & Analytical Geometry II ^{3,4}	4	_____	_____
PHYS 231	University Physics I ^{3,4}	4	_____	_____

MAJOR

Core (68 hours)				
CHEM 115	Essentials of General Chemistry	4	_____	_____
ENGI 220	Engineering Economy	3	_____	_____
ENGR 105	Introduction to Engineering I	2	_____	_____
ENGR 115	Introduction to Engineering II	2	_____	_____
ENGR 235	Statics	3	_____	_____
ENGR 240	Dynamics	3	_____	_____
ENGR 315	Fluid Dynamics	3	_____	_____
ENGR 330	Mechanics of Materials	3	_____	_____
ENGR 381	Engineering Design Introduction	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 I ⁵	2	_____	_____
ENGV 325	Structural Analysis	3	_____	_____
ENGV 345	Soil Mechanics	3	_____	_____
ENGV 355	Civil Engineering Lab II ⁵	2	_____	_____
ENGV 365	Hydraulic Engineering	3	_____	_____
ENGV 380	Project & 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 ⁶	3	_____	_____

Technical Elective (3 hours)⁷				
_____	_____	3	_____	_____

Quantitative Studies (14 hours)				
ENGR 133	Calculus with MATLAB	1	_____	_____
ENGR 210	Prob. & Statistical Methods for Engr.	3	_____	_____
MATH 430	Multivariable Calculus	3	_____	_____
MATH 432	Applied Differential Equations	3	_____	_____
PHYS 232	University Physics II	4	_____	_____

Notes

- All applicable prerequisites must be met
- ¹Refer to the list of approved general education electives at www.liberty.edu/gened before enrolling in foundational skills requirements
- ²Students 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
- ³Courses may also fulfill select General Education Requirements. Please refer to the list of approved general education electives at www.liberty.edu/gened
- ⁴Minimum grade of 'C' required
- ⁵Course offered in Intensive Format
- ⁶Choose from the following approved Science Courses: BIOL 101, ENVR 215, or ENVR 220
- ⁷Choose from the following courses: ENGV 415, 440, 455, or 460
- Suggested Course Sequence on second page*

Graduation Requirements

- 130** Total Hours
- 2.0** Overall grade point average
- 32.5** 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
- 32.5** 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

SUGGESTED COURSE SEQUENCE

FRESHMAN YEAR

First Semester		Second Semester	
ENGL 101	3	MATH 132 ²	4
RLGN 104	4	Information Literature Elective ¹	3
UNIV 104	0-3	Natural Science Elective ¹ [PHYS 231] ²	4
Math Elective ¹ [MATH 131] ²	4	ENGI 220	3
ENGR 105	2	ENGR 115	<u>2</u>
ENGR 133	<u>1</u>	Total	16
Total	14-17		

SOPHOMORE YEAR

Communications Elective ¹ [ENGR 270]	3	CHEM 115	4
ENGR 210	3	ENGR 240	3
ENGR 235	3	ENGR 330	3
ENGV 205	1	ENGV 225	2
MATH 430	3	MATH 432	<u>3</u>
PHYS 232	<u>4</u>	Total	15
Total	17		

JUNIOR YEAR

Critical Thinking Elective ¹	3	ENGR 381	3
Social Sciences Elective ¹	3	ENGV 320 ³	2
ENGR 315	3	ENGV 380	3
ENGV 325	3	ENGV 390	3
ENGV 345	3	ENGV 395	3
ENGV 410	<u>3</u>	ENGV 420	<u>2</u>
Total	18	Total	16

SENIOR YEAR

BIBL 104	4	THEO 104	4
ENGR 481	3	Cultural Studies Elective ¹	3
ENGV 355 ³	2	Information Literature Elective ¹	3
ENGV 365	3	ENGR 482	3
ENGV 425	3	ENGV 492	0
Science Elective ⁴	<u>3</u>	Technical Elective ⁵	<u>3</u>
Total	18	Total	16

Notes

¹Refer to the list of approved general education electives at www.liberty.edu/gened before enrolling in foundational skills requirements

²Minimum grade of 'C' required

³Course offered in Intensive Format

⁴Choose from the following approved Science Courses: BIOL 101, ENVR 215, or ENVR 220

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