

Important: This degree plan is effective for those starting this degree program in fall 2024 through summer 2025. 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 (42-45 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 (5-8 hours)¹

UNIV 101	Foundational Skills	1	_____	_____
MATH _____	Math Elective (MATH 114 or higher)	4	_____	_____
_____	Technology Competency ²	0-3	_____	_____

Critical Thinking (5 hours)¹

RLGN 105	Intr Bwvw/Contemp Moral Issues ³	2	_____	_____
_____	Critical Thinking Elective	3	_____	_____

Civic & Global Engagement (5 hours)¹

EVAN 101	Evangelism & Christian Life ³	2	_____	_____
_____	Cultural Studies Elective	3	_____	_____

Social & Scientific Inquiry (7 hours)¹

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

Christianity & Contexts (8 hours)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	_____	_____

Course		Hrs	Sem	Grade
Major Foundational Courses (4-15 hours)				
ENGR 270	Technical Communication ^{4,5}	3	_____	_____
MATH 131	Calculus & Analytical Geometry I ^{4,5}	4	_____	_____
MATH 132	Calculus & Analytical Geometry II ^{4,5}	4	_____	_____
PHYS 231	University Physics I ^{4,5,6}	4	_____	_____

MAJOR

Course		Hrs	Sem	Grade
Core (59 hours)				
CHEM 121	General Chemistry I ^{5,6}	4	_____	_____
ENGI 220	Engineering Economy ⁵	3	_____	_____
ENGM 310	Materials Engineering	3	_____	_____
ENGM 350	Computer-Aided Engineering	3	_____	_____
ENGM 375	Thermal-Fluids Design Lab	2	_____	_____
ENGM 415	Design of Machine Components	3	_____	_____
ENGM 445	Materials & Manufacturing Processing	4	_____	_____
ENGR 110	Intro. to Engineering Fundamentals ⁵	3	_____	_____
ENGR 235	Statics ⁵	3	_____	_____
ENGR 240	Dynamics ⁵	3	_____	_____
ENGR 313	Mechatronics	4	_____	_____
ENGR 315	Fluid Dynamics	3	_____	_____
ENGR 320	Thermodynamics	3	_____	_____
ENGR 330	Mechanics of Materials	3	_____	_____
ENGR 360	Heat Transfer	3	_____	_____
ENGR 385	Thermodynamics II	3	_____	_____
ENGR 405	Dynamic Systems Modeling	3	_____	_____
ENGR 481	Engineering Design I	3	_____	_____
ENGR 482	Engineering Design II	3	_____	_____

Technical Electives (12 hours)^{5,6,7,8}

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Quantitative Studies (14 hours)

ENGR 210	Prob. & Statistical Methods for Engr. ⁵	3	_____	_____
MATH 231	Calculus & Analytical Geometry III ⁵	4	_____	_____
MATH 334	Differential Equations ⁵	3	_____	_____
PHYS 232	University Physics II ^{5,6}	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

²All students must pass the Computer Assessment OR complete applicable INFT course; refer to www.liberty.edu/computerassessment for more information

³Students transferring in 45 or more UG credit hours will have the requirements of RLGN 105 & EVAN 101 waived; Students transferring in 60 or more UG credit hours will also have the requirements of THEO 201 & THEO 202 waived

⁴Courses may also fulfill select General Education Requirements. Please refer to the list of approved general education electives at www.liberty.edu/gened

⁵Minimum grade of "C" is required

⁶Lab Science courses require lab

⁷Select from the list of Approved [Engineering Technical Elective Courses](#)

⁸ENGR 495 (Directed Research) is strongly recommended

Suggested Course Sequence on second page

Graduation Requirements

131 Total Hours

2.0 Overall grade point average

32.75 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

32.75 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

SUGGESTED COURSE SEQUENCE

FRESHMAN YEAR

First Semester		Second Semester	
BIBL 105	2	BIBL 110	2
ENGL 101	3	Communications Elective ³ [ENGR 270 ¹]	3
MATH 131 ¹	4	Mathematics Elective ³ [MATH 132 ¹]	4
RLGN 105	2	Natural Science Elective ³ [PHYS 231 ¹]	4
UNIV 101	1	ENGI 220 ¹	3
Technology Competency ²	0-3	CSER	<u>0</u>
ENGR 110 ¹	3	Total	16
CSER	<u>0</u>		
Total 15-18			

SOPHOMORE YEAR

CHEM 121 ¹	4	ENGM 310	3
ENGR 235 ¹	3	ENGR 210 ¹	3
MATH 231 ¹	4	ENGR 240 ¹	3
PHYS 232 ¹	4	ENGR 320	3
CSER	<u>0</u>	ENGR 330	3
Total 15		MATH 334 ¹	3
		CSER	<u>0</u>
		Total	18

JUNIOR YEAR

THEO 201	2	THEO 202	2
Information Literacy Elective ³	3	Critical Thinking Elective ³	3
ENGR 315	3	ENGM 350	3
ENGR 360	3	ENGM 375	2
ENGR 385	3	Technical Elective ^{1,4}	3
Technical Elective ^{1,4}	3	Technical Elective ^{1,4}	3
CSER	<u>0</u>	CSER	<u>0</u>
Total 17		Total	16

SENIOR YEAR

EVAN 101	2	Information Literacy Elective ³	3
Cultural Studies Elective ³	3	Social Science Elective ³	3
ENGM 415	3	ENGR 313	4
ENGR 405	3	ENGM 445	4
ENGR 481	3	ENGR 482	3
Technical Elective ^{1,4,5}	3	CSER	<u>0</u>
CSER	<u>0</u>	Total	17
Total 17			

Notes

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