

Important: This degree plan is effective for those starting this degree program in fall 2017 through summer 2018. 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/

CORE COMPETENCY REQUIREMENTS (46-49 hours)

Course		Hrs	Sem	Grade
Communication (6 hours)¹				
ENGL 101	Composition & Rhetoric	3	_____	_____
_____	Communications Elective	3	_____	_____
Math, Science & Technology (9-12 hours)¹				
MATH _____	Math Elective (MATH 114 or higher)	4	_____	_____
_____	Natural Science Elective	4	_____	_____
_____	Technology Competency ²	0-3	_____	_____
UNIV 101	University Core Competencies	1	_____	_____
Information Literacy (7 hours)¹				
INQR 101	Inquiry 101	1	_____	_____
_____	Composition Elective	3	_____	_____
_____	Information Literacy Elective	3	_____	_____
Critical Thinking (12 hours)¹				
RSCH 201	Research 201	3	_____	_____
_____	Literature OR Philosophy Elective	3	_____	_____
_____	Social Science Elective	3	_____	_____
_____	Cultural Studies Elective	3	_____	_____
Christian Life & Thought (12 hours)^{1,3}				
BIBL 105	Old Testament Survey	2	_____	_____
BIBL 110	New Testament Survey	2	_____	_____
EVAN 101	Evangelism & Christian Life	2	_____	_____
RLGN 105	Intr Bwww/Contemp Moral Issues	2	_____	_____
THEO 201	Theology Survey I	2	_____	_____
THEO 202	Theology Survey II	2	_____	_____

Major Foundational Courses (4-15 hours)⁴

Course		Hrs	Sem	Grade
ENGR 270	Technical Communication	3	_____	_____
MATH 131	Calculus & Analytical Geometry I ⁵	4	_____	_____
MATH 132	Calculus & Analytical Geometry II ⁵	4	_____	_____
PHYS 231	University Physics I ⁵	4	_____	_____

MAJOR

Course		Hrs	Sem	Grade
Core (55 hours)				
CSIS 111	Introduction to Programming	3	_____	_____
ENGI 220	Engineering Economy	3	_____	_____
ENGI 230	Production Systems	3	_____	_____
ENGI 300	Enterprise Forecasting	3	_____	_____
ENGI 305	Data Analysis Methods & Modeling	3	_____	_____
ENGI 330	Facilities Design	3	_____	_____
ENGI 340	Intro. Ops. Res.: Deterministic Models	3	_____	_____
ENGI 350	Intro. Ops. Res.: Probabilistic Models	3	_____	_____
ENGI 360	Engineering Information Systems	3	_____	_____
ENGI 420	Adv. Data Analysis & Machine Learning	3	_____	_____
ENGI 430	Decision Analysis	3	_____	_____
ENGI 450	Human Factors & Ergonomics	3	_____	_____
ENGI 460	Digital Simulation	3	_____	_____
ENGR 102	Intro. to Engineering & Comp. Science	1	_____	_____
ENGR 110	Intro. to Engineering & Problem Solving	3	_____	_____
ENGR 370	Quality Assurance	3	_____	_____
ENGR 381	Engineering Design Introduction	3	_____	_____
ENGR 481	Engineering Design I	3	_____	_____
ENGR 482	Engineering Design II	3	_____	_____
Technical Electives (9 hours)^{6,7}				
_____	_____	_____	_____	_____
Quantitative Studies (21 hours)				
ENGR 133	Calculus with MATLAB	1	_____	_____
ENGR 210	Prob. & Statistical Methods for Engr.	3	_____	_____
MATH 221	Applied Linear Algebra	3	_____	_____
MATH 231	Calculus & Analytical Geometry III	4	_____	_____
MATH 250	Introduction to Discrete Mathematics	3	_____	_____
MATH 334	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 core competency requirements

²All students must pass the Computer Assessment OR complete applicable INFT course; refer to <http://www.liberty.edu/generalstudies/inft> 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

⁴Major Foundational Courses can also fulfill General Education/Core Competency requirements as applicable

⁵Minimum grade of "C" is required

⁶Select from the list of Approved Engineering Technical Elective Courses

⁷ENGR 495 (Directed Research) is strongly recommended

Suggested Course Sequence on second page

Graduation Requirements

135 Total Hours

2.0 Overall grade point average

33.75 Hours must be upper-level courses (300-400 level)

Grade of 'C' Minimum required for all upper-level courses in the major

50% Of major, including technical electives and quantitative studies, taken through Liberty University

33.75 Hours must be completed through Liberty University

Grad App Submission of Graduation 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	
ENGL 101	3	BIBL 105	2
EVAN 101	2	INQR 101	1
MATH 131 ¹	4	Communications Elective ³ [ENGR 270]	3
RLGN 105	2	Mathematics Elective ³ [MATH 132 ¹]	4
UNIV 101	1	Natural Science Elective ³ [PHYS 231 ¹]	4
Technology Competency ²	0-3	ENGI 220	3
ENGR 102	1	CSER	<u>0</u>
ENGR 110	3	Total	17
ENGR 133	1		
CSER	<u>0</u>		
Total	17-20		

SOPHOMORE YEAR

RSCH 201	3	ENGI 230	3
Cultural Studies Elective ³	3	ENGI 360	3
CSIS 111	3	MATH 221	3
MATH 231 ¹	4	MATH 334	3
MATH 250	3	PHYS 232	4
CSER	<u>0</u>	CSER	<u>0</u>
Total	16	Total	16

JUNIOR YEAR

BIBL 110	2	Literature OR Philosophy Elective ³	3
THEO 201	2	Social Science Elective ³	3
Composition Elective ³	3	ENGI 305	3
ENGI 330	3	ENGI 350	3
ENGI 340	3	ENGR 370	3
ENGR 210	3	ENGR 381	3
CSER	<u>0</u>	CSER	<u>0</u>
Total	16	Total	18

SENIOR YEAR

THEO 202	2	Information Literacy Elective ³	3
ENGI 300	3	ENGI 450	3
ENGI 420	3	ENGI 460	3
ENGI 430	3	ENGR 482	3
ENGR 481	3	Technical Elective ⁴	3
Technical Elective ⁴	3	Technical Elective ^{4, 5}	3
CSER	<u>0</u>	CSER	<u>0</u>
Total	17	Total	18

Notes

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³Refer to the list of approved general education electives at www.liberty.edu/gened before enrolling in core competency requirements

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⁵ENGR 495 (Directed Research) is strongly recommended