

**Important:** This degree plan is effective for those starting this degree program in fall 2019 through summer 2020. 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 (46-49 hours)

Course		Hrs	Sem	Grade
<b>Communication &amp; Information Literacy (13 hours)<sup>1</sup></b>				
ENGL 101	Composition & Rhetoric	3	_____	_____
INQR 101	Inquiry 101	1	_____	_____
_____	Communications Elective	3	_____	_____
_____	Information Literacy Elective	3	_____	_____
_____	Information Literacy Elective	3	_____	_____

#### Technological Solutions & Quantitative Reasoning (5-8 hours)<sup>1</sup>

UNIV 101	University Core Competencies	1	_____	_____
MATH _____	Math Elective (MATH 114 or higher)	4	_____	_____
_____	Technology Competency <sup>2</sup>	0-3	_____	_____

#### Critical Thinking (8 hours)<sup>1</sup>

RLGN 105	Intr Bwvw/Contemp Moral Issues <sup>3</sup>	2	_____	_____
RSCH 201	Research 201	3	_____	_____
_____	Critical Thinking Elective	3	_____	_____

#### Civic & Global Engagement (5 hours)<sup>1</sup>

EVAN 101	Evangelism & Christian Life <sup>3</sup>	2	_____	_____
_____	Cultural Studies Elective	3	_____	_____

#### Social & Scientific Inquiry (7 hours)<sup>1</sup>

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

#### Christianity & Contexts (8 hours)<sup>1</sup>

BIBL 105	Old Testament Survey	2	_____	_____
BIBL 110	New Testament Survey	2	_____	_____
THEO 201	Theology Survey I <sup>3</sup>	2	_____	_____
THEO 202	Theology Survey II <sup>3</sup>	2	_____	_____

Course		Hrs	Sem	Grade
<b>Major Foundational Courses (4-15 hours)</b>				
ENGR 270	Technical Communication <sup>4</sup>	3	_____	_____
MATH 131	Calculus & Analytical Geometry I <sup>4,5</sup>	4	_____	_____
MATH 132	Calculus & Analytical Geometry II <sup>4,5</sup>	4	_____	_____
PHYS 231	University Physics I <sup>4,5</sup>	4	_____	_____

#### MAJOR

<u>Core (59 hours)</u>				
CSIS 111	Introduction to Programming	3	_____	_____
ENG 361	Computer Architecture	3	_____	_____
ENGE 201	Introduction to Logic Design	3	_____	_____
ENGE 211	Intro. to Electrical & Electronic Circuits	4	_____	_____
ENGE 212	AC Circuit Analysis	4	_____	_____
ENGE 311	Signals & Systems	3	_____	_____
ENGE 312	Digital Signal Processing	3	_____	_____
ENGE 321	Electronics	4	_____	_____
ENGE 331	Electromagnetic Fields	4	_____	_____
ENGE 341	Communication Systems	3	_____	_____
ENGE 411	Control Systems	3	_____	_____
ENGE 421	Advanced Electronics	3	_____	_____
ENGI 220	Engineering Economy	3	_____	_____
ENGR 102	Introduction to Engineering	1	_____	_____
ENGR 110	Introduction to Engineering Fundamentals	3	_____	_____
ENGR 381	Engineering Design Introduction	3	_____	_____
ENGR 481	Engineering Design I	3	_____	_____
ENGR 482	Engineering Design II	3	_____	_____
_____	_____	6	_____	_____

#### Technical Electives (3 hours)<sup>7,8</sup>

<u>Quantitative Studies (21 hours)</u>				
ENGR 133	Calculus with MATLAB	1	_____	_____
ENGR 210	Prob. & Statistical Analysis for Engr.	3	_____	_____
MATH 221	Applied Linear Algebra	3	_____	_____
MATH 231	Calculus & Applied 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

<sup>1</sup>Refer to the list of approved general education electives at [www.liberty.edu/gened](http://www.liberty.edu/gened) before enrolling in foundational skills requirements

<sup>2</sup>All students must pass the Computer Assessment OR complete applicable INFT course; refer to [www.liberty.edu/computerassessment](http://www.liberty.edu/computerassessment) for more information

<sup>3</sup>Students 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

<sup>4</sup>Courses may also fulfill select General Education Requirements. Please refer to the list of approved general education electives at [www.liberty.edu/gened](http://www.liberty.edu/gened)

<sup>5</sup>Minimum grade of "C" is required

<sup>6</sup>Choose from: ENGC 465, ENGE 351 or ENGE 431

<sup>7</sup>Select from the list of Approved Engineering Technical Elective Courses

<sup>8</sup>ENGR 495 (Directed Research) is strongly recommended

*Suggested Course Sequence on second page*

#### 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 upper-level courses in the major

50% Of major, including technical electives and quantitative studies, 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

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
MATH 131 <sup>1</sup>	4	INQR 101	1
RLGN 105	2	Communications Elective <sup>3</sup> [ENGR 270]	3
UNIV 101	1	Mathematics Elective <sup>3</sup> [MATH 132 <sup>1</sup> ]	4
Technology Competency <sup>2</sup>	0-3	Natural Science Elective <sup>3</sup> [PHYS 231 <sup>1</sup> ]	4
ENGR 102	1	ENGI 220	3
ENGR 110	3	CSER	<u>0</u>
ENGR 133	1		Total 17
CSER	<u>0</u>		
Total 15-18			

### SOPHOMORE YEAR

RSCH 201	3	ENGE 201	3
CSIS 111	3	ENGE 212	4
ENGE 211	4	MATH 221	3
MATH 231	4	MATH 334	3
MATH 250	3	PHYS 232	4
CSER	<u>0</u>	CSER	<u>0</u>
Total 17		Total 17	

### JUNIOR YEAR

BIBL 110	2	THEO 201	2
EVAN 101	2	Information Literacy Elective <sup>3</sup>	3
ENGE 311	3	ENGE 312	3
ENGE 321	4	ENGE 341	3
ENGE 331	4	ENGE 421	3
ENGR 210	3	ENGR 381	3
CSER	<u>0</u>	CSER	<u>0</u>
Total 18		Total 17	

### SENIOR YEAR

THEO 202	2	Cultural Studies Elective <sup>3</sup>	3
Critical Thinking Elective <sup>3</sup>	3	Information Literacy Elective <sup>3</sup>	3
ENGC 361	3	Social Science Elective <sup>3</sup>	3
ENGC 465	3	ENGR 482	3
( <u>OR</u> ENGE 351 <u>OR</u> ENGE 431 in Spring)		Technical Elective <sup>4,5</sup>	3
ENGE 411	3	CSER	<u>0</u>
ENGR 481	3		Total 15
CSER	<u>0</u>		
Total 17			

#### Notes

<sup>1</sup>Minimum grade of "C" is required

<sup>2</sup>All students must pass the Computer Assessment OR complete applicable INFT course; refer to [www.liberty.edu/computerassessment](http://www.liberty.edu/computerassessment) for more information

<sup>3</sup>Refer to the list of approved general education electives at [www.liberty.edu/gened](http://www.liberty.edu/gened) before enrolling in foundational skills requirements

<sup>4</sup>Select from the list of Approved Engineering Technical Elective Courses

<sup>5</sup>ENGR 495 (Directed Research) is strongly recommended