

Bachelor of Science in Electrical Engineering

2023-2024 Degree Completion Plan

Important: This degree plan is effective for those starting this degree program in fall 2023 through summer 2024. 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/

	ONAL SKILLS REQUIREMENTS							
Course		<u>Hrs</u> <u>Sem</u>	<u>Grade</u>	<u>Course</u>		<u>Hrs</u>	<u>Sem</u>	Grad
Communica	tion & Information Literacy (13 hou	rs) ¹		Major Foun	dational Courses (4-15 hours)			
ENGL 101	Composition & Rhetoric	3		ENGR 270	Technical Communication ⁴	3		
INQR 101	Inquiry 101	1		MATH 131	Calculus & Analytical Geometry I ^{4,5}	4		
	Communications Elective	3		MATH 132	Calculus & Analytical Geometry II ^{4,5}	4		
	Information Literacy Elective	3		PHYS 231	University Physics I ^{4,5}	4		
	Information Literacy Elective	3						
				MAJOR				
Technologic	al Solutions & Quantitative Reasonin	ng (5-8 hou	rs) ¹		Core (56 hours)			
UNIV 101	Foundational Skills	1		CSIS 111	Introduction to Programming	3		
MATH	Math Elective (MATH 114 or higher)	4		ENGC 361	Computer Architecture	3		
	Technology Competency ²	0-3		ENGE 201	Introduction to Logic Design	3		
				ENGE 211	Intro. to Electrical & Electronic Circuits	4		
Critical Thin	nking (8 hours) ¹			ENGE 212	AC Circuit Analysis	4		
RLGN 105	Intr Bwvw/Contemp Moral Issues ³	2		ENGE 311	Signals & Systems	3		
RSCH 201	Research 201	3		ENGE 312	Digital Signal Processing	3		
	Critical Thinking Elective	3		ENGE 321	Electronics	4		
				ENGE 331	Electromagnetic Fields	4		
Civic & Glol	bal Engagement (5 hours) ¹			ENGE 341	Communication Systems	3		
EVAN 101	Evangelism & Christian Life ³	2		ENGE 411	Control Systems	3		
	Cultural Studies Elective	3		ENGE 421	Advanced Electronics	3		
				ENGI 220	Engineering Economy	3		
Social & Sci	entific Inquiry (7 hours) ¹			ENGR 102	Introduction to Engineering	1		
	Natural Science Elective	4		ENGR 110	Introduction to Engineering Fundamentals	3		
	Social Science Elective	3		ENGR 481	Engineering Design I	3		
				ENGR 482	Engineering Design II	3		
Christianity	& Contexts (8 hours) ¹				6	3		
BIBL 105	Old Testament Survey	2						
BIBL 110	New Testament Survey	2			<u>Technical Electives</u> (6 hours) ^{7,8}			
THEO 201	Theology Survey I ³	2				_		
THEO 202	Theology Survey II ³	2				_		
					Quantitative Studies (21 hours)			
				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				

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

25% 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

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

Minimum grade of "C" is required

Choose from: ENGC 465, ENGE 351 or ENGE 431

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

SENGR 495 (Directed Research) is strongly recommended

Suggested Course Sequence on second page

Revised: 04.28.2023 Effective: Catalog Term 2023-40

SUGGESTED COURSE SEQUENCE

FRESHMAN YEAR

First Semester		Second Semester										
ENGL 101	3	BIBL 105	_	2								
MATH 131 ¹	4	INQR 101										
RLGN 105	2	Communications Elective ³ [ENGR 270]		3								
UNIV 101	1	Mathematics Elective ³ [MATH 132 ¹]		4								
Technology Competency ²	0-3	Natural Science Elective ³ [PHYS 231 ¹]		4								
ENGR 102	1	ENGI 220		3								
ENGR 110	3	CSER		0								
ENGR 133	1	Tota	al	<u>1</u> 7								
CSER	0											
	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		0								
Total	17	Tota	al	17								
JUNIOR YEAR												
BIBL 110	2	THEO 201		2								
EVAN 101	2	Information Literacy Elective ³		3								
ENGE 311	3	ENGE 312		3								
ENGE 321	4	ENGE 341		3								
ENGE 331	4	ENGE 421		3								
ENGR 210	3	Technical Elective ⁴		3								
CSER	<u>0</u>	CSER		0								
Total	18	Tota	al	17								
SENIOR YEAR												
THEO 202	2	Cultural Studies Elective ³		3								
Critical Thinking Elective ³	3	Information Literacy Elective ³		3								
ENGC 361	3	Social Science Elective ³		3								
ENGC 465	3	ENGR 482		3								
(OR ENGE 351 OR ENGE 431 in Spring)		Technical Elective ^{4,5}		3								
ENGE 411	3	CSER		0								
ENGR 481	3	Tota	al	15								
CSER	<u>0</u>											
Total	17											

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⁴Select from the list of Approved <u>Engineering Technical Elective Courses</u> ⁵ENGR 495 (Directed Research) is strongly recommended