LIBERTY UNIVERSITY

Bachelor of Science in Mechanical Engineering

2018-2019 Degree Completion Plan

Important: This degree plan is effective for those starting this degree program in fall 2018 through summer 2019. 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	MPETENCY REQUIREMENTS (46-	Hrs Hrs	Sem	Grade	Course		Hrs	Sem	Grade
Communica	ation (6 hours) ¹				Major Foun	dational Courses (4-15 hours) ⁴			
ENGL 101	Composition & Rhetoric	3			ENGR 270	Technical Communication	3		
	Communications Elective	3			MATH 131	Calculus & Analytical Geometry I ⁵	4		
					MATH 132	Calculus & Analytical Geometry II ⁵	4		
Math, Scien	ce & Technology (9-12 hours) ¹				PHYS 231	University Physics I ⁵	4		
MATH	Math Elective (MATH 114 or higher)	4							
	Natural Science Elective	4			MAJOR				
	Technology Competency ²	0-3				Core (65 hours)			
UNIV 101	University Core Competencies	1			CHEM 121	General Chemistry I	4		
					ENGI 220	Engineering Economy	3		
Information	n Literacy (7 hours) ¹				ENGM 310	Materials Engineering	3		
INQR 101	Inquiry 101	1			ENGM 350	Computer-Aided Engineering	3		
	Composition Elective	3			ENGM 375	Thermal-Fluids Design Lab	2		
	Information Literacy Elective	3			ENGM 415	Design of Machine Components	3		
					ENGM 445	Materials & Manufacturing Processing	4		
Critical Thi	nking (12 hours) ¹				ENGR 102	Introduction to Engineering	1		
RSCH 201	Research 201	3			ENGR 110	Introduction to Engineering Fundamentals	3		
	Literature OR Philosophy Elective	3			ENGR 125	Visualization for Engineers	1		
	Social Science Elective	3			ENGR 235	Statics	3		
	Cultural Studies Elective	3			ENGR 240	Dynamics	3		
					ENGR 313	Mechatronics	4		
Christian L	ife & Thought (12 hours) ^{1,3}				ENGR 315	Fluid Dynamics	3		
BIBL 105	Old Testament Survey	2			ENGR 330	Mechanics of Materials	4		
BIBL 110	New Testament Survey	2			ENGR 360	Heat Transfer	3		
EVAN 101	Evangelism & Christian Life	2			ENGR 381	Engineering Design Introduction	3		
RLGN 105	Intr Bwvw/Contemp Moral Issues	2			ENGR 385	Thermodynamics II	3		
THEO 201	Theology Survey I	2			ENGR 405	Dynamic Systems Modeling	3		
THEO 202	Theology Survey II	2			ENGR 481	Engineering Design I	3		
					ENGR 482	Engineering Design II	3		
					PHYS 320	Thermodynamics	3		

Technical Electives (6 hours)^{6,7}

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	befor
Graduation Requirements	² All st
136 Total Hours	refer
2.0 Overall grade point average	³ Stude
34 Hours must be upper-level courses (300-400 level)	105 .
Grade of 'C' Minimum required for all upper-level courses in the major	have
50% Of major, including technical electives and quantitative studies, taken	⁴ Majo
through Liberty University	requir
34 Hours must be completed through Liberty University	⁵ Mini
Grad App Submission of Graduation Application must be completed within the	⁶ Selec
last semester of a student's anticipated graduation date	7ENG
CSER All requirements must be satisfied before a degree will be awarded	Sugge

Notes

Potes
All applicable prerequisites must be met
¹Refer to the list of approved general education electives at <u>www.liberty.edu/gened</u>
²All students must pass the Computer Assessment OR complete applicable INFT course; refer to <u>www.liberty.edu/computerassessment</u> 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

SUGGESTED COURSE SEQUENCE

FRESHMAN YEAR

First Semester		Second Semester	
ENGL 101	3	BIBL 105	2
MATH 131 ¹	4	INQR 101	1
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	Total	17
CSER	<u>0</u>		
	Total 15-18		

SOPHOMORE YEAR

EVAN 101	2	RSCH 201	3
CHEM 121	4	ENGM 310	3
ENGR 125	1	ENGR 210	3
ENGR 235	3	ENGR 240	3
MATH 231 ¹	4	MATH 334	3
PHYS 232	4	PHYS 320	3
CSER	<u>0</u>	CSER	<u>0</u>
	Total 18		Total 18

JUNIOR YEAR

Composition Elective ³	3	BIBL 110	2
ENGM 350	3	Literature OR Philosophy Elective ³	3
ENGR 313	4	ENGM 375	2
ENGR 315	3	ENGR 330	4
ENGR 360	3	ENGR 381	3
CSER	<u>0</u>	ENGR 385	3
	Total 16	CSER	<u>0</u>
			Total 17

SENIOR YEAR

THEO 201	2	THEO 202	2	,
Cultural Studies Elective ³	3	Information Literacy Elective ³	3	
ENGM 415	3	Social Science Elective ³	3	
ENGR 405	3	ENGM 445	4	
ENGR 481	3	ENGR 482	3	
Technical Elective ⁴	3	Technical Elective ^{4, 5}	3	
CSER	<u>0</u>	CSER	<u>0</u>	<u>!</u>
	Total 17		Total 18	3

Notes

¹Minimum grade of "C" is required

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

³Refer to the list of approved general education electives at <u>www.liberty.edu/gened</u> before enrolling in core competency requirements ⁴Select from the list of Approved Engineering Technical Elective Courses ⁵ENGR 495 (Directed Research) is strongly recommended