LIBERTY UNIVERSITY

Bachelor of Science in Computer Science
Cyber Security Cognate
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		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 Bwvw/Contemp Moral Issues	2		
THEO 201	Theology Survey I	2		
THEO 202	Theology Survey II	2		

Course		Hrs	Sem	Grade
Major Foundational Courses (4-15 hours)[4]				
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	4		
MAJOR				
	Core (39 hours)			
CSIS 100	Intro. to Information Sciences & Systems	3		
CSIS 110	Introduction to Computing Sciences	3		
CSIS 111	Introduction to Programming	3		
CSIS 112	Advanced Programming	3		
CSIS 215	Algorithms & Data Structures	3		
CSIS 326	Database System Concepts	3		
CSIS 342	Computer Architecture & Organization	3		
CSIS 355	Network Architecture & Protocols	3		
CSIS 434	Theory of Programming Languages	3		
CSIS 443	Operating Systems	3		
CSIS 471	Software Engineering	3		
CSIS 481	CS Capstone I	3		
CSIS 482	CS Capstone II	3		
	Cognate (12 hours)			
CSIS 340	Studies in Information Security	3		
CSIS 345	Introduction to Linux	3		
CSIS 461	Technical Aspects of Computer Security	3		
CSIS 463	Modern Cryptography	3		
	Quantitative Studies Courses (10 hours)			
ENGR 133	Calculus with MATLAB			
or MATH 133	Calculus with Mathematica Lab	1		
MATH 211	Introduction to Statistical Analysis	3		
MATH 250	Introduction to Discrete Mathematics	3		
MATH 350	Discrete Mathematics	3		
	Lab Sciences Courses (8 hours)			
_____	Natural Science Elective[6]	4		
_____	Lab Science Elective[7]	4		
	Technical Elective Courses (12-13 hours)[8]			
CRST 290	History of Life	2		
_____	_____	_		
_____	_____	_		
_____	_____	_		

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** courses in the Major, Quantitative Studies, Lab Sciences and Technical Electives
- **50%** Of major, core, and cognate taken through Liberty University
- **32.75** 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

Notes
All applicable prerequisites must be met

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

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

[3] 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

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

[5] Minimum grade of "C" is required

[6] Choose from BIOL 213 *and* 214, BIOL 225, CHEM 105, 107, 122, ENVR 220 *and* 221, PHYS 101 *and* 103, PHYS 201, 202, or 232

[7] Choose from BIOL 101 *and* 103, 102 *and* 104, BIOL 224 or CHEM 121

[8] Choose a minimum of 10 credits from Approved Computer Science Courses

Suggested Course Sequence on second page

SUGGESTED COURSE SEQUENCE

FRESHMAN YEAR

First Semester		Second Semester	
ENGL 101	3	EVAN 101	2
MATH 131[1]	4	INQR 101	1
UNIV 101	1	RLGN 105	2
Technology Competency[2]	0-3	Communications Elective[3] [ENGR 270]	3
CSIS 100	3	Composition Elective[3]	3
CSIS 110	3	Math Elective[3] [MATH 132[1]]	4
MATH 133 or ENGR 133	1	CSIS 111	3
CSER	0	CSER	0
	Total 15-18		Total 18

SOPHOMORE YEAR

BIBL 105	2	BIBL 110	2
Natural Science Elective[3] [PHYS 231]	4	RSCH 201	3
Social Science Elective[3]	3	Literature/Philosophy Elective[3]	3
CRST 290	2-3	CSIS 215	3
CSIS 112	3	MATH 250	3
MATH 211	3	Lab Science Elective[4]	4
CSER	0	CSER	0
	Total 17-18		Total 18

JUNIOR YEAR

THEO 201	2	THEO 202	2
Natural Science Elective[5]	4	Cultural Studies Elective[3]	3
CSIS 326	3	CSIS 340	3
CSIS 342	3	CSIS 434	3
CSIS 355	3	CSIS 443	3
MATH 350	3	CSIS 471	3
CSER	0	CSER	0
	Total 18		Total 17

SENIOR YEAR

Information Literacy Elective[3]	3	CSIS 461	3
Social Science Elective[3]	3	CSIS 463	3
CSIS 345	3	CSIS 482	3
CSIS 481	3	Technical Elective[6]	3
Technical Elective[6]	3	Technical Elective[6]	3
Technical Elective[6]	3	CSER	0
CSER	0		Total 15
	Total 18		

Notes

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

[4] Choose from BIOL 101 *and* 103, 102 *and* 104, BIOL 224 or CHEM 121

[5] Choose from BIOL 213 *and* 214, BIOL 225, CHEM 105, 107, 122, ENVR 220 *and* 221

[6] Choose a minimum of 10 credits from Approved Computer Science Courses