

Bachelor of Science in Computer Science

Software Engineering Cognate

2019-2020 Degree Completion Plan

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/

Course		Hrs	Sem	Grade	Course		Hrs	Sem	Grad
Communication & Information Literacy (13 hours) ¹					Major Foundational Courses (0-20 hours)				
ENGL 101	Composition & Rhetoric	3			BUSI 240	Organizational Behavior I ⁴	3		
INQR 101	Inquiry 101	1			CSIS 110	Introduction to Computing Sciences ⁴	3		
1101	Communications Elective	3			CSIS 111	Introduction to Programming ⁴	3		
	Information Literacy Elective	3			ENGR 270	Technical Communication ⁴	3		
	Information Literacy Elective	3			MATH 131	Calculus & Analytical Geometry I ⁴	4		
	information Exercely Elective	3			PHYS 201	General Physics I ⁴	4		
Technological	Solutions & Quantitative Reasoning (5-	8 hours)	1			•			
UNIV 101	University Core Competencies	1			MAJOR				
MATH	Math Elective (MATH 114 or higher)	4				Core (42 hours)			
	Technology Competency ²	0-3			CSIS 100	Intro. to Information Sciences & Systems	3		
					CSIS 112	Advanced Programming	3		
Critical Think	king (8 hours) ¹				CSIS 215	Algorithms & Data Structures	3		
RLGN 105	Intr Bwvw/Contemp Moral Issues ³	2			CSIS 326	Database System Concepts	3		
RSCH 201	Research 201	3			CSIS 342	Computer Architecture & Organization	3		
	Critical Thinking Elective	3			CSIS 345	Introduction to Linux	3		
	-				CSIS 352	System Administration	3		
Civic & Globa	al Engagement (5 hours) ¹				CSIS 355	Network Architecture & Protocols	3		
EVAN 101	Evangelism & Christian Life ³	2			CSIS 434	Theory of Programming Languages	3		
	Cultural Studies Elective	3			CSIS 443	Operating Systems	3		
					CSIS 461	Technical Aspects of Computer Security	3		
Social & Scientific Inquiry (7 hours) ¹					CSIS 471	Software Engineering	3		
	Natural Science Elective	4			CSIS 481	CS Capstone I ⁵			
	Social Science Elective	3			or CSIS 485	Cybersecurity Capstone I ⁵	3		
					CSIS 482	CS Capstone II ⁵			
Christianity & Contexts (8 hours) ¹					or CSIS 486	Cybersecurity Capstone II ⁵	3		
BIBL 105	Old Testament Survey	2							
BIBL 110	New Testament Survey	2				Cognate (12 hours)			
THEO 201	Theology Survey I ³	2			BUSI 427	Team Dynamics	3		
THEO 202	Theology Survey II ³	2			CSIS 315	Client-Side Programming	3		
					CSIS 316	Server-Side Programming	3		
					CSIS 375	Introduction to Human-Computer Interaction	3		
						Quantitative Studies Courses (13 hours)			
					MATH 128	Elem. Functions & Coordinate Geometry	4		
						Introduction to Statistical Analysis	3		
					MATH 211	Introduction to Statistical Analysis Introduction to Discrete Mathematics	3		
					MATH 250				-
					MATH	Math Elective ⁶	3		-
						Lab Sciences Courses (4 hours)			
						Lab Science Elective ⁷	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 foundational skill 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

approved general education electives at www.inberty.edu/gened *Cybersecurity Cognate students are required to take the Cybersecurity Capstones (CSIS 485 & 486). Students in other Cognates are required to take the CS Capstones (CSIS 481 & 482) *Choose one of the following courses not already required by the degree: MATH 125, 130, 132, 200, 217, 221, 301, 302, 305, 307, 350, or 352. Applicable prerequisites must be met. *Choose any science course which includes a lab component. Students typically choose BIOL 101 and 103, 102 and 104, 224, CHEM 105, 107, 121 or PHYS 202. If choosing a Physics course, it must be one that adds to the material in PHYS 201.

8Choose from: BUSI 300, 301, 313, 424, 427, or any 200-400 level Computer Science, Math, or Engineering course not already required by the degree

Suggested Course Sequence on second page

Graduation Requirements

- 120 Total Hours
- 2.0 Overall grade point average
- 30 Hours must be upper-level courses (300-400 level)

Grade of 'C' Minimum required for <u>all</u> courses in the major, quantitative studies, lab science, technical elective, and major foundational sections

50% Of major, core, and cognate taken through Liberty University

30 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

Revised: 05.24.2019 Effective: Catalog Term 2019-40

SUGGESTED COURSE SEQUENCE

FRESHMAN YEAR

First Semester		Second Semester									
ENGL 101	3	EVAN 101									
UNIV 101	1	INQR 101		1							
Information Literacy Elective ¹ [CSIS 110]	3	RLGN 105									
Technology Competency ²	0-3	Communications Elective ¹ [ENGR 270]		3							
CSIS 100	3	Information Literacy Elective ¹ [CSIS 111]		3							
MATH 128	4	Math Elective ¹ [MATH 131]		4							
CSER	<u>0</u>	CSER		0							
Т	otal 14-17	Т	otal	15							
•	SOPHOMORI	E YEAR									
BIBL 105	2	BIBL 110		2							
Natural Science Elective ¹ [PHYS 201]	4	RSCH 201		3							
Social Science Elective ¹ [BUSI 240]	3	CSIS 215		3							
CSIS 112	3	CSIS 315		3							
MATH 250	3	CSIS 345		3							
CSER	0	MATH 211		3							
	otal 15	CSER		0							
			otal	_							
JUNIOR YEAR											
CSIS 316	3	BUSI 427		3							
CSIS 326	3	CSIS 434		3							
CSIS 342	3	CSIS 443		3							
CSIS 352	3	CSIS 461		3							
CSIS 355	3	CSIS 471		3							
CSER	<u>0</u>	CSER		<u>0</u>							
Т	otal 15	Т	otal	15							
THE 0 201	SENIOR Y			2							
THEO 201	2	THEO 202		2							
CSIS 375	3	Critical Thinking Elective ¹		3							
CSIS 481	3	Cultural Studies Elective ¹		3							
Lab Science Elective ³	4	CSIS 482		3							
MATH Elective ⁴	3	Technical Elective ⁵		3-4							
CSER	<u>0</u>	CSER	1	<u>0</u>							
1	otal 15	Т	otal	14-15							

Notes

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