

# **Bachelor of Science in Computer Science**

General Cognate

2024-2025 Degree Completion Plan

This degree plan is effective for those starting this degree program in fall 2024 through summer 2025. 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	ONAL SKILLS REQUIREMENTS (42-4	Hrs	Sem	Grade	Course		Hrs	Sem	Gra
	ion & Information Literacy (12 hours) <sup>1</sup>					ational Courses (0-20 hours)			
ENGL 101	Composition & Rhetoric	3			BUSI 240	Organizational Behavior & Management <sup>4</sup>	3		
	Communications Elective	3			CSCN 110	Introduction to Computer Sciences <sup>4</sup>			
	Information Literacy Elective	3			CSCN 111	Programming in C++ Beginner <sup>4</sup>			_
	Information Literacy Elective	3			ENGR 270	Technical Communication <sup>4</sup>			_
	mormation Energy Elective				MATH 131	Calculus & Analytical Geometry I <sup>4</sup>	4		
Technologica	Solutions & Quantitative Reasoning (5-	-8 hours)	1		PHYS 201	General Physics I <sup>4</sup>	4		_
UNIV 101	Foundational Skills	1	,		11110 201	General Thysics T	•		
MATH	Math Elective (MATH 114 or higher)	4			MAJOR				
WAIT	Technology Competency <sup>2</sup>	0-3			MAJUK	Core (42 hours)			
	reciniology Competency	0-3			CSCN 112	Programming in C++ Advanced <sup>5</sup>	2		
C. M. J. M. J.					CSCN 215	Data Structures & Algorithms Using C++ <sup>5</sup>	3 3 3 3 4 4 5 3 3 5 3		-
	king (5 hours) <sup>1</sup>	2				Data Structures & Algorithms Using C++	4 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4		
RLGN 105	Intr Bwvw/Contemp Moral Issues <sup>3</sup>	2			CSCN 230	Business Data Communications & Networks <sup>5</sup>			
	Critical Thinking Elective	3			CSCN 326	Database Design & Management <sup>5</sup>			
					CSCN 340	Information Security Concepts & Principles <sup>5</sup>	3 3 3 3 ory <sup>5</sup> 3 4 5		
	al Engagement (5 hours) <sup>1</sup>	_			CSCN 342	Computer Architecture <sup>5</sup>	-		
EVAN 101	Evangelism & Christian Life <sup>3</sup>	2			CSCN 345	Linux Operating Systems <sup>5</sup>			
	Cultural Studies Elective	3							
						Network Architecture, Protocols, & Theory		Sem	_
Social & Scie	ntific Inquiry (7 hours) <sup>1</sup>			CSCN 352 Windows System Administration <sup>5</sup> 3  CSCN 355 Network Architecture, Protocols, & Theory <sup>5</sup> 3  CSCN 434 Program Language Design & Comp Theory <sup>5</sup> 3  CSCN 443 Operating Systems Design <sup>5</sup> 3  CSCN 471 Software Engineering Management <sup>5</sup> 3  CSCN 481 Computer Science Practicum I <sup>5</sup> 3					
	Natural Science Elective	4							
	Social Science Elective	3			CSCN 471				
							3		
	& Contexts (8 hours) <sup>1</sup>				CSCN 482	Computer Science Practicum II <sup>5</sup>	3		
BIBL 105	Old Testament Survey	2							
BIBL 110	New Testament Survey	2				Cognate (12 hours)			
THEO 201	Theology Survey I <sup>3</sup>	2			CSCN 354	Fundamentals of Distributed Systems <sup>5</sup>	3		
THEO 202	Theology Survey II <sup>3</sup>	2			CSCN	CSCN Elective <sup>5,6</sup>	3		
					CSCN	CSCN Elective <sup>5,6</sup>	3		
					CSCN	CSCN Programming Language Elective <sup>5,7</sup>	3		
						Quantitative Studies Courses (13 hours)			
					MATH 128	Precalculus with Trigonometry <sup>8</sup>	4		
					MATH 211	Introduction to Statistical Analysis	3		
					MATH 250	Introduction to Discrete Mathematics	3		-
					MATH 350	Discrete Mathematics			
						<u>Lab Sciences Courses</u> (4 hours)			
Notes						Lab Science Elective <sup>9</sup>	4		
	rerequisites must be met to fapproved general education electives at www					Technical Elective Courses (7 hours) <sup>10</sup>			

<sup>2</sup>All students must pass the Computer Assessment OR complete applicable INFT course; refer to 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

Students are required to take these courses residentially in support of ABET accreditation. Exceptions are on a case-by-case basis and require ABET coordinator review and Department Chair approval.

<sup>6</sup>Choose any 300-400 level CSCN course not already required by the degree

<sup>7</sup>Choose one of the following Programming Language courses: CSCN (or CSIS) 209, 212, 244, 312, 315, 316, or 354, or BMIT 212. Other languages may be approved by the

<sup>8</sup>Any student entering the major directly into MATH 131 will require a 4 credit MATH Elective to substitute in place of MATH 128 (for example, MATH 132 may sub for credit) <sup>9</sup>Choose any science course which includes a lab component. If choosing a Physics course, it must be PHYS 201 and 202L, or a higher level Physics course. PHYS 101 and 103 are not

<sup>10</sup>Choose from: BUSI 300, 301, 313, 424, 427, any 200-400 level Computer Science course, any 200-400 level Engineering course (except ENGR 210), or any Advanced Math course (must be MATH 132 or higher) 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 all courses in the major, quantitative studies, lab science, technical elective, and major foundational sections

25% 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: 04.26.2024 Effective: Catalog Term 2024-40

## SUGGESTED COURSE SEQUENCE

## FRESHMAN YEAR

First Semester		Second Semester		
ENGL 101	3	BIBL 105	2	
EVAN 101	2	UNIV 101	1	
RLGN 105	2	Information Literacy Elective <sup>1</sup> [CSCN 111]		
Information Literacy Elective <sup>1</sup> [CSCN 110]	3	Math Elective <sup>1</sup> [MATH 131]		
Technology Competency <sup>2</sup>	0-3	CSCN 230	4 3	
MATH 128 <sup>3</sup>	4	Communications Elective <sup>1</sup> [ENGR 270]	3	
CSER	<u>0</u>	CSER	0	
	<u>=</u> 14-17	CDEAT	Total 16	
1544	1.17		10141 10	
SOP	HOMORE '	YEAR		
BIBL 110	2	Social Science Elective <sup>1</sup> [BUSI 240]	3	
THEO 201	2	CSCN 215	3	
CSCN 112	3	CSCN 352	3	
CSCN 345	3	CSCN 355	3	
MATH 250	3	MATH 350	3	
CSER	<u>0</u>	CSER	<u>0</u>	
Total	13		Total 15	
Jı	UNIOR YEA	AR		
Natural Science Elective <sup>1</sup> [PHYS 201]	4	CSCN 326	3	
CSCN 340	3	CSCN 354	3	
CSCN 342	3	CSCN 471	3	
MATH 211	3	Computer Science Elective <sup>5</sup>	3	
Computer Science Programming Elective <sup>4</sup>	3	Lab Science Elective <sup>6</sup>	4	
CSER	<u>0</u>	CSER	0	
Total	_		Total 16	
Si	ENIOR YE	AR		
CSCN 434	3	THEO 202	2	
CSCN 443	3	Critical Thinking Elective <sup>1</sup>	3	
CSCN 481	3	Cultural Studies Elective <sup>1</sup>	3	
Computer Science Elective <sup>5</sup>	3	CSCN 482	3	
Technical Elective <sup>7</sup>	4	Technical Elective <sup>7</sup>	3	
CSER	<u>0</u>	CSER	<u>0</u>	
Total	16		Total 14	

#### Notes

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<sup>&</sup>lt;sup>1</sup>Refer to the list of approved general education electives at <a href="www.liberty.edu/gened">www.liberty.edu/gened</a> before enrolling in foundational skills requirements

<sup>&</sup>lt;sup>2</sup>All students must pass the Computer Assessment OR complete applicable INFT course; refer to <a href="www.liberty.edu/computerassessment">www.liberty.edu/computerassessment</a> for more information

<sup>&</sup>lt;sup>3</sup>Any student entering the major directly into MATH 131 will require a 4 credit MATH Elective to substitute in place of MATH 128 (for example, MATH 132 may sub for credit)

<sup>&</sup>lt;sup>4</sup>Choose one of the following Programming Language courses: CSCN (or CSIS) 209, 212, 244, 312, 315, 316, or 354, or BMIT 212. Other languages may be approved by the department chair.

<sup>&</sup>lt;sup>5</sup>Choose any 300-400 level CSCN course not already required by the degree.

<sup>&</sup>lt;sup>6</sup>Choose any science course which includes a lab component. If choosing a Physics course, it must be PHYS 201 and 202L, or a higher level Physics course. PHYS 101 and 103 are not allowable.

<sup>&</sup>lt;sup>7</sup>Choose from: BUSI 300, 301, 313, 424, 427, any 200-400 level Computer Science course, any 200-400 level Engineering course (except ENGR 210), or any Advanced Math course (must be MATH 132 or higher) not already required by the degree.