

COMPUTER SCIENCE
Louisiana Tech University

FRESHMAN YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
CSC 130 * The Science of Computing I	3	CSC 131 * The Science of Computing II	3	CSC 132 * The Science of Computing III	3
MATH 240 * Precalculus	3	MATH 241 * Calculus I	3	MATH 242 * Calculus II	3
COMM 101 <input type="checkbox"/> Principles of Comm Studies	3	ENGL 101 Freshman Composition I	3	BISC 130 Biological Principles	3
FYE 100 Freshman Year Experience	1			BISC 131 Biological Principles Lab	1
	10		9		10

SOPHOMORE YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
CSC 220 * Data Structures	3	CSC 222 * Systems Programming	3	CSC 345 Operating Systems	3
CSC 265 * Introduction to Digital Design	3	PHYS 201 * Physics for Engr & Science I	3	PHYS 202 Physics for Engr & Science II	3
MATH 311 Discrete Mathematics I	3	PHYS 261 * General Physics Laboratory	1	PHYS 262 General Physics Laboratory	1
ENGL 102 Freshman Composition II	3	Social Science**	3	Social Science**	3
	12		10		10

JUNIOR YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
CSC 325 * Advanced Data Structures & Algorithms	3	CSC 330 Programming Languages	3	CSC 310 Theory of Computing	3
ENGL 210, 211, or 212	3	CSC 430 Database Management Systems	3	CSC 364 Computer Architecture	3
Fine Arts Appr.	3	CSC Elective	3	Minor/Concentration	3
Math/Science Elective	3	ENGL 303 Technical Writing	3		
	12		12		9

SENIOR YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
CSC 403 *	3	CSC 405 * Senior Capstone I	2	CSC 406 Senior Capstone	1
CSC Elective	3	Minor/Concentration	3	CSC Elective	3
Minor/Concentration	3	STAT 405 Statistical Methods	3	ENGL 363 Scientific & Tech Presentations	3
	9		8	Minor/Concentration	3
					10

* Requires grade of "C" or higher.

Must be taken within first year of enrollment

Courses in **bold** are typically offered only once per year.

**Social Science Electives can be selected from Anthropology, Criminal Justice, Economics, Geography, International Studies, Interdisciplinary, Political Science, Psychology, and Sociology.

CYBER SECURITY CONCENTRATION					
Course	Name		Cr	Grade	Prerequisites
CSC 442	Introduction to Cyber Security	Sp	3		CSC 220 and consent of instructor
CSC 450	Computer Networks	W	3		CSC 325 or consent of instructor
Two of the following:			6		
CSC 443	Digital Forensics and Cyber Crime	F			CSC 442 or consent of instructor
CSC 444	Applied Cryptography	Sp			CSC 442 or consent of instructor
CSC 446	Access Control Logic and Covert Channels	W			CSC 442 and MATH 311 or consent of instructor
CSC 447	Wireless and Mobile Security	Sp			CSC 442 or consent of instructor
CSC 448	Reverse Engineering	F			CSC 442 or consent of instructor
CSC 452	Distributed and Cloud Computing	F			CSC 345 or consent of instructor
CSC 454	Advanced Computer Networks	Sp			CSC 450 or consent of instructor
CSC 475	Artificial Intelligence	F			CSC 325 or consent of instructor
MATH 308	Introduction to Linear Algebra	W,Sp			MATH 243 or MATH 311
Total			12		

GRAPHICS AND GAME DESIGN CONCENTRATION					
Course	Name		Cr	Grade	Prerequisites
CSC 470	Computer Graphics	W	3		CSC 325 or consent of instructor
CSC 475	Artificial Intelligence	F	3		CSC 325 or consent of instructor
ART 464	Advanced Communication Media	F,Sp	3		Consent of instructor
MATH 308	Introduction to Linear Algebra	W,Sp	3		MATH 243 or MATH 311
Total			12		

CLOUD COMPUTING AND BIG DATA CONCENTRATION					
Course	Name		Cr	Grade	Prerequisites
CSC 452	Distributed and Cloud Computing	F	3		CSC 345 or consent of instructor
CSC 493	Data Mining and Knowledge Discovery	F	3		CSC 325 or consent of instructor
CSC 498	Advanced Data Mining, Fusion, and Application	Sp	3		CSC 325 or consent of instructor
One of the following:			3		
CSC 450	Computer Networks	W			CSC 325 or consent of instructor
CSC 475	Artificial Intelligence	F			CSC 325 or consent of instructor
Total			12		

COMPUTER ENGINEERING CONCENTRATION					
Course	Name		Cr	Grade	Prerequisites
ENGR 221	Electrical Engineering and Circuits I		3		ENGR 122 (we substitute CSC 132), MATH 242, PHYS 2
ELEN 242	Introduction to Microprocessors	F,W	3		MATH 242
ELEN 333	Introduction to Digital Design	W,Sp	3		ELEN 242
ELEN 423	Embedded Systems	F	3		ELEN 242
Total			12		