

COMPUTER SCIENCE
Louisiana Tech University
Curriculum as of 2019 to Current

Name _____

Date _____

CWID _____

Email _____@latech.edu

COURSE	PREREQUISITE	SCH	QTR	GRADE
CSC 130	MATH 101 or equivalent	3		R*
131	CSC 130 or CYEN 130	3		R*
132	CSC 131 or CYEN 131	3		R*
220	CSC 132 or CYEN 132, MATH 240○	3		R*
222	CSC 132 or CYEN 132, MATH 240○	3		R*
265	CSC 132 or CYEN 132	3		R*
310	CSC 220, MATH 311	3		R
325	CSC 220, MATH 311○	3		R*
330	CSC 325	3		R
345	CSC 222	3		R
364	CSC 265	3		R
403	CSC 325, Senior Standing	3		R*
405	CSC 403	2		R*
406	CSC 405	1		R
430	CSC 220	3		R
BISC 130		3		
131	BISC 130○	1		
COMM 101		3		□
ENGL 101		3		
102	ENGL 101	3		
210, 211, 212	ENGL 102	3		
303	ENGL 102	3		
363	ENGL 303	3		
MATH 240	Math ACT > 26 or Math SAT > 609 or placement	3		*
241	MATH 240	3		*
242	MATH 241	3		*
311	MATH 242	3		*
PHYS 201	MATH 241	3		*
202	PHYS 201 MATH 242	3		
261	MATH 112 or 240	1		*
262	PHYS 261	1		
STAT 405	MATH 242	3		
ELECTIVES				
Fine Arts Appr.(ART 290, KINE 280, MUGN 290, or THTR 290)		3		
CSC Directed Elective		3		R
CSC Directed Elective		3		R
CSC Directed Elective		3		R
MATH Directed Elective		3		
Minor/Concentration		3		
Minor/Concentration		3		
Minor/Concentration		3		
Minor/Concentration		3		
Social Science		3		
Social Science		3		
TOTAL SEMESTER HOURS		120		

SUBSTITUTIONS		
COURSE	SCH	GRADE
1		
2		
3		
4		
5		

ADDITIONAL COURSES		
COURSE	SCH	GRADE
1		
2		
3		
4		
5		
6		

GPA	
Rubric GPA	_____

NOTES	
*	requires grade of "C" or higher
○	credit or registration in
R	course in rubric
□	must be taken within first year of enrollment
1	Directed electives must be selected in consultation with advisor.
2	Petitions must be filed for substitutions.
3	A student must have a minimum 2.0 GPA on all hours pursued in courses designated: CSC.

ADDITIONAL COMMENTS	

Advisor: _____

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
ENGL 101 Freshman Composition I	3	ENGL 102 Freshman Composition I	3	BISC 130 Biological Principles	3
FYE 100 Freshman Year Experience	1	COMM 101 □ Principles of Comm. Studies	3	BISC 131 Biological Principles Lab	1
	10		12		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
Fine Arts Appreciation	3	Social Science**	3	Social Science**	3
	12		10		10

JUNIOR YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
CSC 325 * Adv. Data Structures & Algorithms	3	CSC 330 Programming Languages	3	CSC 310 Theory of Computing	3
ENGL 210, 211, or 212	3	CSC 430 Database Mgmt. Systems	3	CSC 364 Computer Architecture	3
Math Elective‡	3	CSC Directed Elective◊	3	Minor/Concentration	3
	9	ENGL 303 Technical Writing	3		
	9		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 II	1
CSC Directed Elective◊	3	STAT 405 Statistical Methods	3	ENGL 363 Scientific & Tech. Presentations	3
Minor/Concentration	3	Minor/Concentration	3	CSC Directed Elective◊	3
	9		8	Minor/Concentration	3
	9		8		10

* Requires grade of "C" or higher.

□ Must be taken within first year of enrollment.

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

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

◊Direct Electives are chosen in consultation with academic advisor.

‡ Math Elective must be above 242. Math 308 highly recommended.

**COMPUTER SCIENCE
CONCENTRATIONS**
Louisiana Tech University

CLOUD COMPUTING AND BIG DATA CONCENTRATION						
COURSE		SCH	GRADE			PREREQUISITE
CSC	450	Computer Networks	3			CSC 325
	or 475	<i>Artificial Intelligence</i>				CSC 325
	452	Distributed and Cloud Computing	3			CSC 345
	493	Data Mining and Knowledge Discovery	3			CSC 325
	498	Advanced Data Mining, Fusion, and Application	3			CSC 325
		TOTAL	12			

COMPUTER ENGINEERING CONCENTRATION						
COURSE		SCH	GRADE			PREREQUISITE
ELEN	242	Introduction to Microprocessors	3			MATH 242
	333	Introduction to Digital Design	3			ELEN 242
	423	Embedded Systems	3			ELEN 242
ENGR	221	Electrical Engineering and Circuits I	3			ENGR 122, MATH 242, PHYS 201
		TOTAL	12			

CYBER SECURITY CONCENTRATION						
COURSE		SCH	GRADE			PREREQUISITE
CSC	442	Introduction to Cyber Security	3			CSC 220 & Permission of Instructor
	450	Computer Networks	3			CSC 325
Two of the following:						
CSC	443	Digital Forensics and Cyber Crime	3			CSC 442
	444	Applied Cryptography	3			CSC 442
	446	Access Control Logic and Covert Channels	3			CSC 442, MATH 311
	447	Wireless Mobile Security	3			CSC 442
	448	Reverse Engineering	3			CSC 442
	452	Distributed and Cloud Computing	3			CSC 345
	454	Advanced Computer Networks	3			CSC 450
	475	Artificial Intelligence	3			CSC 325
MATH	308	Introduction to Linear Algebra	3			MATH 243 or 311
		TOTAL	12			

GRAPHICS AND GAME DESIGN CONCENTRATION						
COURSE		SCH	GRADE			PREREQUISITE
ART	477	Advanced Communication Media	3			ART 367 & Permission of Instructor
CSC	470	Computer Graphics	3			CSC 325
	475	Artificial Intelligence	3			CSC 325
MATH	308	Introduction to Linear Algebra	3			MATH 243 or 311
		TOTAL	12			

* requires grade of "C" or higher.