

COMPUTER SCIENCE CURRICULUM 2022
Louisiana Tech University

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	FYE 100○	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/ GER				
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

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

* 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
CSC	470	Computer Graphics	3	CSC 325
	475	Artificial Intelligence	3	CSC 325
	477	Game Design	3	CSC 220 & Permission of Instructor
MATH	308	Introduction to Linear Algebra	3	MATH 243 or 311
TOTAL			12	

* requires grade of "C" or higher.