COMPUTER SCIENCE

Louisiana Tech University Curriculum as of 2019 to Current

Name

CWID

Email

@latech.edu

COUF	RSE	PREREQUISITE	SCH	QTR		GRADE		SUB
CSC		MATH 101 or equivalent	3		R*			COURSE
	131	CSC 130 or CYEN 130	3		R*		1	
	132	CSC 131 or CYEN 131	3		R*		2	
	220	CSC 132 or CYEN 132, MATH 2400	3		R*		3	
	222	CSC 132 or CYEN 132, MATH 2400	3		R*		4	
	265	CSC 132 or CYEN 132	3		R*		5	
	310	CSC 220, MATH 311	3		R			
	325	CSC 220, MATH 3110	3		R*			ADDITIC
	330	CSC 325	3		R			COURSE
	345	CSC 222	3		R		1	
	364	CSC 265	3		R		2	
	403	CSC 325, Senior Standing	3		R*		3	
	405	CSC 403	2		R*		4	
	406	CSC 405	1		R		5	
	430	CSC 220	3		R		6	
BISC	130		3					
	131	BISC 1300	1					
COMM	101		3				Rubri	ic GPA
ENGL	101		3					
	102	ENGL 101	3					
210, 21	1, 212	ENGL 102	3					
	303	ENGL 102	3				*	requires grade of "
	363	ENGL 303	3				0	credit or registratio
MATH	240	Math ACT > 26 or Math SAT > 609 or placement	3		*		R	course in rubric
	241	MATH 240	3		*			must be taken with
	242	MATH 241	3		*			
	311	MATH 242	3		*		1	Directed electives
PHYS		MATH 241	3		*			with advisor.
	202	PHYS 201 MATH 242	3				2	Petitions must be fi
		MATH 112 or 240	1		*		3	A student must hav
		PHYS 261	1					on all hours pursue
STAT		MATH 242	3					CSC.
ELECTIV								
Fine Arts	Appr.(ART 290, KINE 280, MUGN 290, or THTR 290)	3					
CSC Dire			3		R			
CSC Dire			3		R			
CSC Dire		lective	3		R			ADDITIO
		Elective	3					
Minor/Co	ncentra	ation	3					
Minor/Co			3		l i			
Minor/Co			3					
Minor/Co	ncentra	ation	3					
Social Sc			3					
Social Sc			3					
		TER HOURS	120		• •			

	SUBSTITUTIONS											
	COURSE	SCH	GRADE									
1												
2												
3												
4												
5												

	ADDITIONAL COURSES										
	COURSE	SCH	GRADE								
1											
2											
3											
4											
5											
6											

GPA

NOTES

- "C" or higher
- on in

hin first year of enrollment

must be selected in consultation

filed for substitutions.

ave a minimum 2.0 GPA led in courses designated:

ADDITIONAL COMMENTS							

Advisor:

COMPUTER SCIENCE

Louisiana Tech University

	FRESHMAN YEAR											
	Fall Quarter		Hr	· Winter Quarter	Hr	r 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			
				1		1						

	SOPHOMORE YEAR														
Fall Quarter			Hr	Winter Quarter				H	•		Spring Quarter	Hr			
CSC	220	*	Data Structures	3	CSC	1	222	*	Systems Programming	3	C	SC	345	Operating Systems	3
CSC	265	*	Introduction to Digital Design	3	PHYS	2	201	*	Physics for Engr & Science I	3	Pł	HYS	202	Physics for Engr & Science II	3
MATH	311		Discrete Mathematics I	3	PHYS	2	261	*	General Physics Laboratory	1	Pł	HYS	262	General Physics Laboratory	1
Fine Ar	s Appi	re	ciation	3	Social	Sc	ienc	ce*	*	3	So	ocial S	Science	**	3
				12						10)				10

JUNIOR YEAR											
Fall Quarter	Hr		Winter Quarter					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 Dire	ected	Elective≎	3	Minor/	3				
		ENGL	303	Technical Writing	3						
	9				12				9		
						1					

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/Concentr	rartion	3	CSC Directed Elective◊						
					Minor/Concent	ration	3				
	9			8			10				
							Π				

* Requires grade of "C" or higher.

 $\hfill\square$ 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.

 $\Diamond \mathsf{Directe}\ \mathsf{Electives}\ \mathsf{are}\ \mathsf{chosen}\ \mathsf{in}\ \mathsf{consultation}\ \mathsf{with}\ \mathsf{academic}\ \mathsf{advisor}.$

‡ 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	Artificial Intelligence			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					
		τοται	12							

TOTAL 12

COMPUTER ENGINEERING CONCENTRATION										
COURSE			SCH	G	RADE	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				
		ΤΟΤΑΙ	12							

TOTAL 12

	CYBER SECURITY CONCENTRATION										
COU	RSE		SCH	GRADE	PREREQUISITE						
CSC	442	Introduction to Cyber Security	3		CSC 220 & Permission of Instructor						
	450	Computer Networks	3		CSC 325						
Two of the foll	lowing:										
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						
		TC	DTAL 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.