

CIVIL ENGINEERING
Louisiana Tech University
Curriculum as of 2024

Name _____

Date _____

CWID _____

Email _____@latech.edu

COURSE	PREREQUISITE	SCH	QTR	GRADE
CVEN 200	ENGR 122 or HNRS 122	1		R
254	MATH 112 or 240	3		R
302	ENGR 122 or MEMT 206	3		R
310	MEMT 313, MATH 313 ^o	3	Sp	R
314	CHEM 102	3	W	R
324	MEMT 212	3		R
325	CVEN 324	3	F	R
332	ENGR 122	3	F	R
333	CVEN 332	3	W	R
340	MEMT 212	3	F	R
343	CVEN 302, 340	3	W	R
344	CVEN 340	3		R
345	CVEN 492	1		R
461	Jr Standing	3	Sp	R
492	4 out of 5 courses: CVEN 254, 310, 324, 332, 340	1	F	R
493	CVEN 492	1	W	R
494	CVEN 493	1	Sp	R
BISC 101		3		
CHEM 101	CHEM 100	2		*
102	CHEM 101	2		*
103	CHEM 100, 101 ^o	1		*
104	CHEM 102 ^o , CHEM 103	1		
COMM 101		3		<input type="checkbox"/>
ENGL 101		3		
102	ENGL 101	3		
303	ENGL 102	3		
ENGR 120	MATH 240 ^o , CHEM 100 ^o	2		*
121	ENGR 120, MATH 241 ^o , CHEM 101 ^o	2		*
122	ENGR 121, MATH 242 ^o	2		*
220	ENGR 122, MATH 242, PHYS 201	3		R*
221	ENGR 122, MATH 242, PHYS 201	3		
222	ENGR 122, MATH 242	3		
MATH 241	MATH 240	3		*
242	MATH 241	3		*
243	MATH 242	3		*
244	MATH 243	3		*
245	MATH 244	3		
313	MATH 245 ^o	3		
MEMT 203	ENGR 220	3		R
212	ENGR 220, MATH 241-243 GPA ≥ 2.0	3	W	R*
313	ENGR 222, MEMT 203, MATH 241-244 GPA > 2.0	3		R*
PHYS 201	Math 241	3		*
ELECTIVES				
Art (ART 290, KINE 280, MUGN 290, or THTR 290)		3		
Directed Elective		3		
Directed Elective		3		
Directed Elective		3		
Humanity		3		
Social Science		3		
Social Science		3		
TOTAL SEMESTER HOURS		128		

SUBSTITUTIONS		
COURSE	SCH	GRADE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

ADDITIONAL COURSES		
COURSE	SCH	GRADE
1		
2		
3		
4		
5		

GPA	
Rubric GPA	_____
MATH 241-244 GPA	_____

NOTES	
* requires grade of "C" or higher	
^o credit or registration in	
R course in rubric	
<input type="checkbox"/> must be taken within first year of enrollment	
1 Directed electives must be selected in consultation with advisor, approved by Program Chair.	
2 Petitions must be filed for substitutions.	
3 A student must have a minimum 2.0 GPA on all hours pursued in courses designated: CVEN.	

ADDITIONAL COMMENTS	

Advisor: _____

CIVIL ENGINEERING
Louisiana Tech University

FRESHMAN YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
ENGR 120 * Engineering Problem Solving I	2	ENGR 121 * Engineering Problem Solving II	2	ENGR 122 * Engineering Problem Solving III	2
MATH 240 * Precalculus	3	MATH 241 * Calculus I	3	MATH 242 * Calculus II	3
CHEM 100 * General Chemistry	2	CHEM 101 * General Chemistry	2	PHYS 201 * Physics for Engr & Science I	3
COMM 101 □ Principles of Comm Studies	3	CHEM 103 * General Chemistry Laboratory	1	ENGL 102 Freshman Composition II	3
FYE 100 First Year Experience	1	ENGL 101 Freshman Composition I	3		
	11		11		11

SOPHOMORE YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
ENGR 221 Electrical Engineering & Circuits I	3	CVEN 302 CVEN Construction Materials	3	CVEN 254 Plane Surveying	3
ENGR 220 * Statics & Mechanics of Materials	3	MATH 244 * Calculus IV	3	ENGR 222 Thermodynamics	3
MATH 243 * Calculus III	3	CHEM 102 * General Chemistry	2	MATH 245 Differential Equations	3
CVEN 200 Introduction to Civil Engineering	1	CHEM 104 General Chemistry Laboratory	1	ENGL 303 Technical Writing	3
		MEMT 212 * Inter. Statics & Mechanics of Materials	3		
	10		12		12

JUNIOR YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
CVEN 332 Highway Engineering I	3	CVEN 333 Highway Engineering II	3	CVEN 310 Water Resources I	3
CVEN 340 Structural Analysis and Design	3	CVEN 343 Reinforced Concrete Design	3	CVEN 324 Intro to Soils Engineering	3
BISC 101 Fundamentals of Biology	3	MATH 313 Introductory Numerical Analysis	3	CVEN 344 Steel Design	3
MEMT 203 Dynamics	3	MEMT 313 * Elementary Fluid Mechanics	3	Social Science**	3
	12		12		12

SENIOR YEAR					
Fall Quarter	Hr	Winter Quarter	Hr	Spring Quarter	Hr
CVEN 325 Intro to Foundation Engineering	3	CVEN 314 Environmental Engineering	3	CVEN 461 Civil Engineering Construct. Fund.	3
CVEN 492 Civil Engineering Design I	1	CVEN 493 Civil Engineering Design II	1	CVEN 494 Civil Engineering Design III	1
Fine Arts Appreciation	3	CVEN 345 Fundamentals of Professional Eng	1	Directed Elective◊	3
Humanity†	3	Directed Elective◊	3	Social Science**	3
		Directed Elective◊	3		
	10		11		10

Neither MATH 240 nor CHEM 100 count towards the civil engineering degree.

* 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.

†Humanities electives can be selected from Classical Studies, Communications, Foreign Languages, History, Literature, Philosophy, Religious Studies, Interdisciplinary.

◊Directed Electives (DE) are chosen by student in consultation with faculty advisor:

1. Students must take at least two DE courses from CVEN 423, 427, 440, 450C**, 455, 464, and 466.
2. Students may select one DE course from: CVEN 355, 358, 435, 436, 437, 438, 442, 450C/CVEN505 (Buried Structures - Rehab and Mgmt), 456, and 480.

**450C courses must be approved as a Directed Elective by advisor and Program Chair quarterly. Example topics include: Bridge Engineering, 450C/MEMT577 (Advanced Strength of Materials), and 450C/504 (Water and Wastewater Treatment).