## **CIVIL ENGINEERING**

Louisiana Tech University Curriculum as of 2019 to Current

Name	Date	
CWID	Email	@latech.edu

COURSE         PREEQUISITE         Sch         QTR         GRADE           CVEN         254         MATH 112 or 240         3         R   <th>CWID</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	CWID						
302 ENGR 122 or MEMT 206	COUR			SCH	QTR		GRADE
310 MEMT 313 314 CHEM 102 32 MEMT 212 32 GVEN 324 335 CVEN 324 336 F R 337 GVEN 332 337 GVEN 332 340 MEMT 212 33 F R 340 MEMT 212 34 F R 341 GVEN 302, 340 344 GVEN 304 345 CVEN 302, 340 346 GVEN 492 37 F R 387 GVEN 302, 340 388 GVEN 302, 340 399 ENGR 122, MATH 245 390 ENGR 122, MATH 245 391 GVEN 492 392 ENGR 122, MATH 245 393 ENGR 102 400 tof 5 courses: CVEN 254, 310, 324, 332, 340 345 CVEN 492 340 GVEN 492 35 F R 36 F R 37 F R 38	CVEN						
314 CHEM 102 324 MEMT 212 33 R R 325 CVEN 324 33 F R 332 ENGR 122 33 F R 333 CVEN 332 340 MEMT 212 35 F R 340 MEMT 212 36 F R 341 CVEN 302, 340 37 W R 344 CVEN 302, 340 38 W R 345 CVEN 492 39 ENGR 122, MATH 245 460 Jr Standing 492 40 tot 5 courses: CVEN 254, 310, 324, 332, 340 492 40 tot 5 courses: CVEN 254, 310, 324, 332, 340 492 40 tot 5 courses: CVEN 254, 310, 324, 332, 340 494 CVEN 493 495 CVEN 493 495 CVEN 493 496 CVEN 493 497 CVEN 493 498 CVEN 493 499 CVEN 493 490 CVEN 493 491 CHEM 100 401 CHEM 100 402 CHEM 101 403 CHEM 100, 1010 404 CHEM 1020, CHEM 103 405 CHEM 101 406 CHEM 1020, CHEM 103 407 CHEM 101 408 CNEM 494 495 CNEM 494 496 CNEM 494 497 CNEM 495 498 CNEM 495 499 CNEM 495 490 CNEM 495				3			
324 MEMT 212 325 CVEN 324 326 ENGR 122 33 F R 337 CVEN 332 340 MEMT 212 33 F R 343 CVEN 332 340 MEMT 212 33 F R 343 CVEN 302, 340 344 CVEN 340 345 CVEN 302, 340 346 CVEN 340 347 CVEN 392 348 CVEN 392 349 CVEN 492 340 Jr Standing 349 ENGR 122, MATH 245 349 CVEN 492 340 CVEN 492 341 W R 349 CVEN 492 340 CVEN 492 340 CVEN 492 340 LVEN 492 340 CVEN 492 340 CVEN 492 341 W R 340 CVEN 492 340 CVEN 493 341 L Sp R 348 CVEN 493 349 CVEN 493 35 L Sp R 35 L Sp R 36 L Sp R 37 L Sp R 38 L Sp				3	Sp	R	
325 CVEN 324 3 F R 332 ENGR 122 3 F R 333 GVEN 332 33 W R 340 MEMT 212 3 F R 8 343 OVEN 302, 340 3 W R 344 CVEN 340 3 W R 344 CVEN 340 3 W R 345 CVEN 492 1 R R 392 ENGR 122, MATH 245 2 W R 492 4 out of 5 outses: CVEN 254, 310, 324, 332, 340 1 F R 8 493 CVEN 492 1 W R 493 CVEN 492 1 W R 493 CVEN 492 1 W R 494 CVEN 493 1 F R 8 494 CVEN 494 CVEN 494 F R 8 494 CVEN 494 CVEN 494 F R 8 494				3	W	R	
332 ENGR 122 3 F R				3		R	
333 CVEN 332 3 W R 340 MEMT 212 3 F R 343 CVEN 302, 340 3 W R 344 CVEN 340 3 W R 344 CVEN 340 3 W R 345 CVEN 492 11 R 349 CVEN 492 494 CVEN 492 494 CVEN 492 494 CVEN 493 1 F R 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8				3	F	R	
340 MEMT 212 343 CVEN 302, 340 344 CVEN 302, 340 345 CVEN 492 31		332	ENGR 122	3	F	R	
343 CVEN 302, 340 3 W R 344 CVEN 340 3 CVEN 492 1 R 345 CVEN 492 1 R 8 SECTION 1 R 1 R 1 R 1 R 1 R 1 R 1 R 1 R 1 R 1		333	CVEN 332	3	W	R	
344		340	MEMT 212	3	F	R	
345   CVEN 492		343	CVEN 302, 340	3	W	R	
Section		344	CVEN 340	3		R	
Section		345	CVEN 492	1		R	
460		392	ENGR 122, MATH 245	2	W		
492				2	Sp		
493 CVEN 492 11 W R 494 CVEN 493 11 Sp R  BISC 101 3				1			
BISC 101 CHEM 101 CHEM 100 2 * *			CVEN 492		W		
BISC 101 CHEM 101 CHEM 100 102 CHEM 101 103 CHEM 100, 1010 104 CHEM 1020, CHEM 103 1 1							
CHEM       101       CHEM 100       2       *         102       CHEM 101       2       *         103       CHEM 100, 1010       1       *         104       CHEM 1020, CHEM 103       1         COMM       101       3       .         ENGL       101       3       .         ENGL       101       3       .         ENGL       101       3       .         ENGL       102       ENGL 101       3         303       ENCL 102       3       .         ENGR       120       MATH 2440, CHEM 1000       2       *         121       ENGR 120, MATH 2410, CHEM 1010       2       *         122       ENGR 121, MATH 2420       2       *         221       ENGR 122, MATH 242, PHYS 201       3       R*         221       ENGR 122, MATH 242, PHYS 201       3       R*         222       ENGR 122, MATH 242       3       *         3       AMTH 241       3       *         4       MATH 241       3       *         4       MATH 243       3       *         4       MATH 244       3       * <td>BISC</td> <td></td> <td></td> <td></td> <td>Op</td> <td></td> <td></td>	BISC				Op		
102			CHEM 100			*	
103	OLIEN					*	
104   CHEM 102o, CHEM 103						*	
COMM       101       3       3   </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
ENGL 101  102 ENGL 101  303 ENGL 102  303 ENGL 102  304 ENGR 120 MATH 240o, CHEM 100o  2	COMM		OTIEM 1020, OTIEM 100				
102   ENGL 101   3   3   3   3   4   4   4   4   4   4							
BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202  BISC 120 MATH 2410  ENGR 120 MATH 2400, CHEM 1000  121 ENGR 120, MATH 2410, CHEM 1010  122 ENGR 121, MATH 2420  220 ENGR 122, MATH 242, PHYS 201  221 ENGR 122, MATH 242, PHYS 201  222 ENGR 122, MATH 242  3	LINGL		ENGL 101				
ENGR 120 MATH 240o, CHEM 1000 2							
121	ENGD					*	
122       ENGR 121, MATH 2420       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       R         MEMT 203       ENGR 220       3       R         212       ENGR 220, MATH 241-243 GPA≥ 2.0       3       R*         PHYS 201       Math 241       3       *         PHYS 201       Math 241       3       *         ELECTIVES       3       Directed Elective         Directed Elective       3       3         Directed Elective       3       3         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3         Humanity       3       3         Social Science       3       3	LINGIN					*	
220       ENGR 122, MATH 242, PHYS 201       3       R*         221       ENGR 122, MATH 242, PHYS 201       3       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       R         MEMT 203       ENGR 220       3       R         ENGR 222, MEMT 203, MATH 241-243 GPA≥ 2.0       3       R*         PHYS 201       Math 241       3       *         ELECTIVES         Art (ART 290, KINE 280, MUGN 290, or THTR 290)       3       R         Directed Elective       3       Directed Elective         Directed Elective       3       S         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3         Humanity       3       3         Social Science       3       3						*	
ENGR 122, MATH 242, PHYS 201 3 BNGR 122, MATH 242 3 MATH 241 MATH 241 MATH 241 MATH 242 MATH 243 ANATH 243 ANATH 244 MEMT 203 ENGR 220 ENGR 220, MATH 241-243 GPA≥ 2.0 ENGR 222, MEMT 203, MATH 241-244 GPA ≥ 2.0  ENGR 222, MEMT 203, MATH 241-244 GPA ≥ 2.0  ENGR 290, KINE 280, MUGN 290, or THTR 290) Directed Elective Directed Elective Directed Elective Natural Science BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202 Humanity Social Science						D*	
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       R         MEMT       203       ENGR 220       3       R         212       ENGR 220,MATH 241-243 GPA≥ 2.0       3       W R*         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       R         Directed Elective       3       Directed Elective         Directed Elective       3       Directed Elective         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3         Humanity       3       Social Science         Social Science       3       3						К	
MATH       241       MATH 240       3       *         242       MATH 241       3       *         243       MATH 242       3       *         244       MATH 243       3       *         245       MATH 244       3       R         MEMT       203       ENGR 220       3       R         ENGR 222, MEMT 203, MATH 241-243 GPA≥ 2.0       3       R*         PHYS       201       Math 241       3       *         ELECTIVES       3       R         Art (ART 290, KINE 280, MUGN 290, or THTR 290)       3       Colorected Elective         Directed Elective       3       Colorected Elective       3         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3         Humanity       3       Colorected Elective       3         Social Science       3       3							
242 MATH 241 3	MATH					*	
243 MATH 242 3 3 *	WATH						
244       MATH 243       3       *         245       MATH 244       3       R         MEMT       203       ENGR 220       3       R         212       ENGR 220,MATH 241-243 GPA≥ 2.0       3       W       R*         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       3         Directed Elective       3       3       3         Directed Elective       3       3       3         Directed Elective       3       3       3         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3       3         Humanity       3       3       3         Social Science       3       3       3							
245       MATH 244       3       R         MEMT       203       ENGR 220       3       R         212       ENGR 220,MATH 241-243 GPA≥ 2.0       3       W       R*         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       3         Directed Elective       3       3       3         Directed Elective       3       3       3         Directed Elective       3       3       3         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3       3         Humanity       3       3       3         Social Science       3       3				_			
MEMT       203       ENGR 220       3       R         212       ENGR 220,MATH 241-243 GPA≥ 2.0       3       W       R*         ENGR 222, MEMT 203, MATH 241-244 GPA ≥ 2.0       3       R*         PHYS       201       Math 241       3       *         ELECTIVES       3         Art (ART 290, KINE 280, MUGN 290, or THTR 290)       3       3         Directed Elective       3       3         Directed Elective       3       3         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3         Humanity       3       3         Social Science       3       3         Social Science       3       3							
212 ENGR 220,MATH 241-243 GPA≥ 2.0 3 W R* ENGR 222, MEMT 203, MATH 241-244 GPA ≥ 2.0 3 R* ELECTIVES  Art (ART 290, KINE 280, MUGN 290, or THTR 290) 3 Directed Elective 3 Directed Electi	NATIVAT						
313       ENGR 222, MEMT 203, MATH 241-244 GPA ≥ 2.0         PHYS 201       Math 241       3       *         ELECTIVES         Art (ART 290, KINE 280, MUGN 290, or THTR 290)       3       3         Directed Elective       3       3         Directed Elective       3       3         Directed Elective       3       3         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3         Humanity       3       3         Social Science       3       3         Social Science       3       3	MEMI			_	147		
313       MATH 241-244 GPA ≥ 2.0         PHYS 201       Math 241       3       *         ELECTIVES         Art (ART 290, KINE 280, MUGN 290, or THTR 290)       3         Directed Elective       3       3         Directed Elective       3       3         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202       3         Humanity       3       3         Social Science       3       3         Social Science       3       3		212		3	VV	K*	
MATH 241-244 GPA ≥ 2.0         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         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202         Humanity       3         Social Science       3         Social Science       3		313		3		R*	
ELECTIVES           Art (ART 290, KINE 280, MUGN 290, or THTR 290)         3           Directed Elective         3           Directed Elective         3           Natural Science         BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202           Humanity         3           Social Science         3           Social Science         3		010	MATH 241-244 GPA <u>&gt;</u> 2.0	Ŭ		· ·	
Art (ART 290, KINE 280, MUGN 290, or THTR 290)       3         Directed Elective       3         Directed Elective       3         Directed Elective       3         Natural Science       BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202         Humanity       3         Social Science       3         Social Science       3			Math 241	3		*	
Directed Elective         3           Directed Elective         3           Directed Elective         3           Natural Science         BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202         3           Humanity         3           Social Science         3           Social Science         3							
Directed Elective   3   3   3   5   5							
Directed Elective   3   3   3   5   5	Directed I	Electiv	e				
Natural Science   BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202   3   Humanity   3   Social Science   3   Soci	Directed I	Electiv	e	_			
Humanity         3           Social Science         3           Social Science         3	Directed I	Electiv	e	3			
Humanity         3           Social Science         3           Social Science         3	Natural S	cience	BISC 201 or 211, ENSC 211, FOR 230, or PHYS 202	3			
Social Science 3 3 Social Science Social Science 3 Social Science	Humanity	,		3			
Social Science 3				3			
TOTAL SEMESTER HOURS 128	Social Sc	ience		3			
			TER 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	
MATH 241-244 GPA		
RUDIIC GPA		

- requires grade of "C" or higher
- o 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: CVEN.

ADDITIONAL COMMENTS	
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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			
BISC	101	Fundamentals of Biology I	3	CHEM	104	General Chemistry Laboratory	1	ENGL 303	Technical Writing	3			
				MEMT	212 *	Inter. Statics & Mechanics of Materia	3						
			12				12			12			
				1				1					

JUNIOR YEAR												
Fall Quarter					Winter Quarter	Hr		Spring Quarter	Hr			
CVEN 332	Highway Engineering I	3	CVEN	314	Environmental Engineering	3	CVEN 310	Water Resources I	3			
CVEN 340	Structural Analysis and Design	3	CVEN	333	Highway Engineering II	3	CVEN 324	Intro to Soils Engineering	3			
Natural Science	CE BISC 201 or 211, ENSC 211, FOR 230, PHSY 202	3	CVEN	343	Reinforced Concrete Design	3	CVEN 344	Steel Design	3			
MEMT 203	Dynamics	3	MEMT	313 *	Elementary Fluid Mechanics	3	Social Science	**	3			
		12				12			12			
			1									

	SENIOR YEAR												
Fall Quarter				Winter Quarter	Hr	Spring Quarter	Hr						
CVEN 325	Intro to Foundation Engineering	3	CVEN 392	Numberical Methods in CVEN	2	CVEN 460 Principles of Infrastructure Mgt	2						
CVEN 492	Civil Engineering Design I	1	CVEN 493	Civil Engineering Design II	1	CVEN 494 Civil Engineering Design III	1						
Fine Arts Ap	preciation	3	CVEN 345	Fundamentals of Professional Eng	1	Directed Elective◊	3						
Humanity+		3	Directed Electi	ve◊	3	Social Science**	3						
			Directed Electi	ve◊	3								
		10			10		9						

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

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

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

♦Directed Electives chosen by student in consultation with faculty advisor

<sup>\*</sup> requires grade of "C" or higher.

 $<sup>\</sup>hfill\square$  must be taken within first year of enrollment

<sup>\*\*</sup>Social Science electives can be selected from Anthropology, Criminal Justice, Economics, Geography, International Studies, Interdisciplinary, Political Science, Psychology, and Sociology.