

CIVIL ENGINEERING CURRICULUM 2022
Louisiana Tech University

Name _____

Date _____

CWID _____

Email _____@latech.edu

| COURSE | PREREQUISITE | SCH | QTR | GRADE |
|--|---|------------|-----|-------|
| CVEN 200 | | 1 | | R |
| 254 | MATH 112 or 240 | 3 | | R |
| 302 | ENGR 122 or MEMT 206 | 3 | | R |
| 310 | MEMT 313 | 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 |
| 393 | ENGR 122, MATH 245 | 3 | W | 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 | FYE 100 ^o | 3 | | |
| 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 | | |
| 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/ GER | | | | |
| 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. | |
| 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 |
| 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 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 |
| BISC 101 Fundamentals of Biology | 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 |

| SENIOR YEAR | | | | | |
|--|----|---|----|---|----|
| Fall Quarter | Hr | Winter Quarter | Hr | Spring Quarter | Hr |
| CVEN 325 Intro to Foundation Engineering | 3 | CVEN 393 Numerical Methods in CVEN | 3 | CVEN 461 Civil Engineering Construction Fun | 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 are chosen by student in consultation with faculty advisor. Students must take at least two from CVEN 423, 427, 440, 450C, (Topics in Bridge Engineering), 450C (MEMT 577), 450C (CVEN 504), 455, 464, and 466.

Students may take one from: CVEN 355, 358, 435, 436, 437, 438, 442, 450C (Rehab and Managing Buried Structures), 456, and 480.