

## Department of Civil and Architectural Engineering Civil Engineering Program Curriculum

## Effective Fall 2020

| Fall           |       |                                       |                | Spring      |      |                                      |                |
|----------------|-------|---------------------------------------|----------------|-------------|------|--------------------------------------|----------------|
| Freshman Year  |       |                                       |                |             |      |                                      |                |
| <b>ENGL</b>    | 1010  | FRESHMAN ENGLISH I                    | 3              | <b>ENGL</b> | 1020 | FRESHMAN ENGLISH II                  | 3              |
| MATH           | 1910  | CALCULUS I                            | 4              | MATH        | 1920 | CALCULUS II                          | 4              |
| CHEM           | 1110  | GEN CHEMISTRY I                       | 3              | PHYS        | 2110 | CALCULUS BASED PHYSICS I             | 3              |
| CHEM           | 1111  | GEN CHEMISTRY I LAB                   | 1              | PHYS        | 2111 | CALCULUS BASED PHYSICS I LAB         | 1              |
| <b>ENGR</b>    | 1020  | FRESHMAN ENGR SEMINAR                 | 1              | <b>ENGR</b> | 2230 | ENGINEERING COMP PROG                | 3              |
| <b>ENGR</b>    | 1151  | COMPUTER ENGR GRAPHICS                | 1              |             |      |                                      |                |
| UNIV           | 1000  | ORIENTATION                           | 1              |             |      |                                      |                |
|                |       |                                       | 14             |             |      |                                      | 14             |
| Sophomore Year |       |                                       |                |             |      |                                      |                |
| MATH           | 2110  | CALCULUS III                          | 4              | ENGR        | 2130 | MECHANICS OF MATERIALS               | 3              |
| COMM           | 2200  | SPEECH                                | 3              | ENGR        | 2131 | MECHANICS OF MATERIALS LAB           | 1              |
| ENGR           | 2110  | STATICS                               | 3              | ENGR        | 2120 | DYNAMICS                             | 3              |
| PHYS           | 2120  | CALCULUS BASED PHYSICS II             | 3              | MATH        | 3120 | ORDINARY DIFFERENTIAL EQN            | 3              |
| PHYS           | 2121  | CALCULUS BASED PHYSICS II LAI         | •              | ENGL        | 2110 | HUM, ELECT. (ENGL LITERAT)           | 3              |
| BIOL           | 1110  | GENERAL BIOLOGY                       | 2              | HIST        | 2010 | AMERICAN HISTORY I                   | 3              |
| BIOL           | 1111  | GENERAL BIOLOGY LAB                   | 1              |             |      |                                      | •              |
|                |       | -                                     | 17             |             |      | •                                    | 16             |
| SEE NOTE 1     |       |                                       |                |             |      |                                      |                |
| Junior Year    |       |                                       |                |             |      |                                      |                |
| CVEN           | 3000  | INTRO TO ENVIRON ENGR                 | 3              | CVEN        | 3130 | SOIL MECHANICS                       | 3              |
| CVEN           | 3100  | FLUID MECHANICS                       | 3              | <b>CVEN</b> | 3131 | SOIL MECHANICS LAB                   | 1              |
| CVEN           | 3101  | FLUID MECHANICS LAB                   | 1              | CVEN        | 3200 | TRANSPORTATION ENGINEERING           | 3              |
| CVEN           | 3400  | STRUCTURAL TESTING                    | 1              | CVEN        | 3250 | HYDRAULIC ENGINEERING                | 3              |
| <b>ENGR</b>    | 3400  | NUMERICAL ANALYSIS                    | 3              | CVEN        | 4361 | ENVIRON ENGR LAB                     | 1              |
| CVEN           | 3410  | STRUCTURAL ANALYSIS                   | 3              | HIST        | 2020 | AMERICAN HISTORY II                  | 3              |
| ENGR           | 4400  | PROBABILITY & STATISTICS <sup>3</sup> | 3              |             |      | HUMANITIES ELECTIVE <sup>2</sup>     | 3              |
|                |       | -                                     | 17             |             |      |                                      | 17             |
| Senior Year    |       |                                       |                |             |      |                                      |                |
| CVEN           | 3420  | REINF. CONCRETE DESIGN                | 3              | ENGR        | 4201 | ENGINEERING-IN-TRAINING LAB          | 0              |
| CVEN           | 3350  | HYDROLOGY                             | 3              | CVEN        | 4250 | WATER/WASTE WATER ENGR               | 3              |
| CVEN           | 4320  | HIGHWAY ENGINEERING                   | 3              | ENGR        | 4510 | CAPSTONE DESIGN PROJECT II           | 1              |
| CVEN           | 4440  | FOUNDATION ENGINEERING                | 3              | CVEN        | 4470 | CONSTR. MANAGEMENT                   | 3              |
| ENGR           | 4500  | CAPSTONE DESIGN PROJECT I             | 1              | CVEN        | •    | DESIGN TECH. ELECTIVE <sup>4</sup>   | 3              |
| ENGR           | 4900  | PROF DEV SEMINAR                      | 1              |             |      | SOCIAL SCIENCE ELECTIVE <sup>2</sup> | 3              |
|                | -1000 | SOCIAL SCIENCE ELECTIVE <sup>2</sup>  |                |             |      | HUMANITIES ELECTIVE <sup>2</sup>     | -              |
|                |       | SOCIAL SCIENCE ELECTIVE               | <u>3</u><br>17 |             |      | HOWANITIES ELECTIVE                  | <u>3</u><br>16 |
| 1/ 1           |       |                                       |                |             |      |                                      |                |

NOTE1: ALL STUDENTS ARE REQUIRED TO BE WAIVED THE ENGINEERING ENTRANCE EXAMINATION PRIOR TO ENROLLING IN ENGINEERING UPPER (300-400) LEVEL COURSES

NOTE 2: THIS ELECTIVE MUST BE CHOSEN FROM AN APPROVED LIST OF GENERAL EDUCATION CORE COURSE

NOTE 3: COMMUNITY COLLEGE TRANSFER PATH ALLOWS LINEAR ALGEBRA INSTEAD OF THIS COURSE

NOTE 4: THIS ELECTIVE MUST BE CHOSEN FROM AN APPROVED LIST OF DESIGN COURSES:

CVEN 3440: STEEL DESIGN CVEN 4520: CIVIL ENGR DESIGN + OTHERS