### Civil & Environmental Engineering Concentration Model Program - 2023-24 Graduates

#### First Year
- **Fall (17)**
  - 5 Chemistry 101 General Chemistry (F&S)
  - 3 Engineering 101 Intro to Engineering Design (F)
  - 1 Engineering 181 Graphical Communication Lab (F)
  - 4 Mathematics 171 Calculus I (F,S)
  - 3 English 101 Written Rhetoric
  - 1 Interdisciplinary 149 First Year Seminar

- **Spring (15)**
  - 3 Interdisciplinary 150 Developing the Christian Mind
  - 3 Engineering 205 Material Science (S)
  - 4 Mathematics 172 Calculus II (F,S)
  - 4 Physics 133 Introductory Physics, Mechanics and Gravity (S)
  - 3 History Core See Core Curriculum section of catalog for options
  - 1 Health and Fitness See Core Curriculum section of catalog for options

#### Second Year
- **Fall (16)**
  - 4 Engineering 20x* ★
  - 3 Mathematics 270/271 Multivariable Calculus - Math 270 (F only), Math 271 (F,S)
  - 4 Physics 235 Introductory Physics: Electricity and Magnetism (F)
  - 2 Computer Science 104 Applied Computing (F) (CS 106 or 108 may be substituted but both are 4 SH)
  - 3 Religion 121 or 131 Biblical Literature/Christian Theology
  - 0 Engineering 295 Internship Workshop
  - 1 Engineering 184 Sustainability Challenges (F) (Required for students seeking Sustainability Designation)

- **Spring (17)**
  - 4 Engineering 20x ★
  - 4 Mathematics 231 Differential Equations with Linear Algebra (F,S)
  - 3 Economics 221 or 151 Principles of Economics or Microeconomics (ECON 232 or 233 may be substituted)
  - 2 Statistics 241 Engineering Statistics (S)
  - 0 Engineering 294 Seminar

#### Third Year
- **Fall (16)**
  - 4 Engineering 305 Mechanics of Materials (F)
  - 4 Engineering 320 Hydraulic Engineering (F)
  - 4 Engineering 306 Environmental Engineering (F)
  - 3 The Arts See Core Curriculum section of catalog for options
  - 1 Health and Fitness See Core Curriculum section of catalog for options

- **Spring (17)**
  - 4 Engineering 326 Structural Analysis (S)
  - 8 Two of
    - Engineering 308 - Environmental Engineering Design (S)**
    - Engineering Elective
  - 2 Interdisciplinary 102 Oral Rhetoric for Engineers (F,S)
  - 3 Philosophy 153 Fundamental Questions in Philosophy

#### Fourth Year
- **Fall (15)**
  - 8 Two of
    - Engineering Elective
    - Engineering 327 - Structural Design (F)**
  - 2 Engineering 339 Senior Design Project (F)
  - 3 Literature See Core Curriculum section of catalog for options
  - 2 Business 357 Business Aspects for Engineers (F)

- **Spring (16)**
  - 4 Elective: Basic Science or Advanced Math
  - 4 Engineering 340 Senior Design Project (S)
  - 4 One of
    - Engineering Elective
  - 3 Engineering Elective
  - 1 Health and Fitness See Core Curriculum section of catalog for options
  - 0 Engineering 394 Engineering Seminar
  - 1 Engineering 384 Sustainability Analysis (S) (Required for students seeking Sustainability Designation)

### Other Requirements
- 0-8 Foreign Language (2 years of high school or one year of college)

Revised Feb 2021