# Civil & Environmental Engineering Concentration Model Program

**Fall (16)**
- 4 Chemistry 103  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)
- 3-4 History Core  (See catalog)
- 1 Health and Fitness  (See catalog)

**Fall (16)**
- 4 Engineering 20x  ★
- 3 Mathematics 270/271  Multivariable Calculus - Math 270 is (F only) Math 271 is (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 credit hours)
- 3 Religion 121 or 131  Biblical Literature/Christian Theology
- 0 Engineering 295  Internship Workshop
- 1 Engineering 184  Sustainability Challenges (F) (Required for students seeking a Sustainability Designation)

**Second Year**

**Fall (16)**
- 4 Engineering 305  Mechanics of Materials (F)
- 4 Engineering 319  Intro. To Thermal/Fluid Sciences (F)
- 4 Engineering 306  Environmental Engineering (F)
- 3 The Arts  See Core Curriculum section catalog for options
- 1 Health and Fitness  (See catalog) (or during interim)

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

**Third Year**

**Fall (15)**
- 8 Two of
  - Engineering 320  Hydraulic Engineering (S)
  - Engineering 326  Structural Analysis (S)
  - One of: Engineering 308 - Environmental Engineering Design (S) ★
  - Engineering Elective (Minimum of 3 credits - see catalog for restrictions)
- 2 Interdisciplinary 102  Oral Rhetoric for Engineers (F,S) Or IDIS 103 during Interim
- 3 Philosophy 153  Fundamental Questions in Philosophy

**Spring (17)**
- 4 Engineering 321 - Hydraulic Engineering Design (F)
- 4 Engineering 327 - Structural Design (F)
- 2 Engineering 339  Senior Design Project (F)
- 3 Literature  See Core Curriculum section catalog for options
- 2 Business 357  Business Aspects for Engineers (F)

**Fourth Year**

**Fall (15)**
- 3 Engineering Special Topics

**Spring (13)**
- 4 Elective: Basic Science or Advanced Math
- 4 Engineering 340  Senior Design Project (S)
- 1 Health and Fitness  (See catalog) (or during interim)
- 0 Engineering 394  Engineering Seminar
- 3 Free Elective
- 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)

*Note to HONORS Students ENGR 385 or 387 is required of all students seeking to graduate with honors. Talk to your advisor or consult the catalog for details.*

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* Possibly insert Summer Program in Germany

**Pink listings (core courses) may be swapped as long as all are completed. Note: Engr339 has core courses as prereqs.**

See Elective Options sheet for elective courses highlighted in green, red, orange, blue and purple. Classes shaded in light brown are optional.

**All CE concentration students must take at least two of Engr. 308, 321, or 327.**

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