## Chemical Engineering Concentration Model Program

### First Year
- **Fall (16)**
  - ☐ 5 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 (16)**
  - ☐ 3 Interdisciplinary 150 Developing the Christian Mind
  - ☐ 4 Chemistry 104 General Chemistry (S)
  - ☐ 4 Mathematics 172 Calculus II (F,S)
  - ☐ 4 Physics 133 Introductory Physics, Mechanics and Gravity (S)
  - ☐ 3-4 History Core See Core Curriculum section of catalog for options
  - ☐ 1 Health and Fitness (See catalog)

### Second Year
- **Fall (16)**
  - ☐ 4 Engineering 209 Introduction to Conservation Laws and Fluid Mechanics
  - ☐ 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

- **Spring (16)**
  - ☐ 4 Interdisciplinary 209 Introduction to Conservation Laws and Fluid Mechanics
  - ☐ 3 Interdisciplinary 204 Intro to Circuit Analysis and Electronics with Lab
  - ☐ 3 Engineering 205 Material Science
  - ☐ 3 Engineering 202 Statics and Dynamics

- **Fall (17)**
  - ☐ 4 Engineering 312 Chemical Engineering Thermodynamics (S)
  - ☐ 4 Engineering 330 Fluid Flow & Heat Transfer (S)
  - ☐ 5 Chemistry 261 OR 253 Organic Chemistry I (F)
  - ☐ 4 Chemistry 317 Physical Chemistry I (F)
  - ☐ 3 The Arts See Core Curriculum section of catalog for options
  - ☐ 2 Interdisciplinary 102 Oral Rhetoric for Engineers (F,S)

- **Spring (17)**
  - ☐ 4 Engineering 315 Mass Transfer & Staging Operations (F)
  - ☐ 4 Engineering 339 Senior Design Project (F)
  - ☐ 4 Elective: Advanced Science
  - ☐ 1 Health and Fitness (See catalog) (or during interim)
  - ☐ 3 Philosophy 153 Fundamental Questions in Philosophy

### Third Year
- **Fall (17)**
  - ☐ 4 Engineering 331 Kinetics/Reactor Design
  - ☐ 4 Engineering 335 Process Control (S)
  - ☐ 4 Engineering 340 Chemical Engineering Laboratory (S)
  - ☐ 4 Engineering 342 Senior Design Project (S)
  - ☐ 3 Literature See Core Curriculum section of catalog for options

- **Spring (17)**
  - ☐ 3 Engineering Special Topics Elective
  - ☐ 2 Business 357 Business Aspects for Engineers (F)

### Fourth Year
- **Fall (16)**
  - ☐ 3 Engineering 294 Internship Workshop (Required for students seeking a Sustainability Designation)
  - ☐ 2 Engineering 337 Biochemistry & Lab

- **Spring (14)**
  - ☐ 3 Free Elective

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

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