

CHEMICAL ENGINEERING CONCENTRATION MODEL PROGRAM



CALVIN
MINDS IN THE MAKING

FIRST
YEAR

- 4 Chemistry 103 General Chemistry (F)
 - 2 Engineering 101 Intro to Engineering Design (F)
 - 2 Engineering 181 Graphical Communication Lab (F)
 - 4 Mathematics 161 Differential and Integral Calculus (F,S)
 - 3 English 101 Written Rhetoric
 - (1) Interdisciplinary 149 First Year Prelude
- Interim (3)**
- 3 Interdisciplinary 150 Developing the Christian Mind
- Spring (17)**
- 4 Engineering 106 Engineering Chemistry and Materials Science (S)
 - 4 Mathematics 162 Tech. of Integration, Intro to Infinite Series & Multivariate Calculus (F,S)
 - 4 Physics 133 Introductory Physics: Mechanics and Gravity (F,S)
 - 4 History 151 or 152 History of the West and the World
 - 1 Health & Fitness (PER 101-129)

SECOND YEAR

- Fall (17)**
- 4 Engineering 209 Intro. to the Laws of Conservation & Thermodynamics (F,S)
 - 4 Mathematics 231 Differential Equations with Linear Algebra (F,S)
 - 4 Physics 235 Introductory Physics: Electricity and Magnetism (F)
 - 2 Computer Science 104 Applied C++ (F)
 - 3-4 Economics 151 or 221 Principles of Economics/Principles of Microeconomics
 - 0 Internship Workshop (must sign up with Prof. Nielsen)
- Interim (4)**
- 3 Free Elective (or consider taking CAS 101 here in place of IDIS102 later)
- Spring (16)**
- 4 Engineering 202 Statics and Dynamics (F,S)
 - 4 Engineering 204 Intro. to Circuit Analysis and Electronics with Lab (S)
 - 4 Mathematics 232 Engineering Mathematics (F,S)
 - 3 Religion 121 or Religion 131
 - 1 Health & Fitness (PER 130-159) (or during interim)

THIRD YEAR

- Fall (17)**
- 3 Engineering 303 Chem. Engr. Principles & Thermodynamics (F)
 - 5 Chemistry 261 Organic Chemistry (F)
 - 4 Chemistry 317 Physical Chemistry (F)
 - 2 IDIS 102 Oral Rhetoric for Engineers (F,S)
 - 3 The Arts
- Interim* (3)**
- 3 Cross-Cultural Engagement
- Spring (17)**
- 4 Engineering 312 Chemical Engineering Thermodynamics (S)
 - 4 Engineering 330 Fluid Flow & Heat Transfer (S)
 - 5 Chemistry 262 Organic Chemistry (S)
 - 3 Philosophy 153 Fundamental Questions in Philosophy
 - 1 Health & Fitness (PER 160-189)

**Note to: HONORS Students
Engr 294/394 and Engr 385**

These courses are required of all students seeking to graduate with honors. Talk with advisor or consult the catalog about details.

FOURTH YEAR

- Fall (16)**
- 4 Engineering 331 Kinetics/Reactor Design (F)
 - 4 Engineering 335 Mass Transfer & Staging Operations (F)
 - 2 Engineering 339 Senior Design Project (F)
 - 4 Elective: Advanced Chemistry
 - 2 Business 357 Business Aspects for Engineers (F)
- Interim (3)**
- 3 Engineering Special Topics Elective
- Spring (16)**
- 2 Engineering 337 Chemical Engineering Laboratory (S)
 - 4 Engineering 340 Senior Design Project (S)
 - 4 Engineering 342 Process Control (S)
 - 3 Literature
 - 3 Free Elective

Other Requirements

- 0-8 Foreign Language (2 years of high school or 1 year of college)

Pink listings (core courses) may be swapped as long all are completed by the end of the senior year.
See Elective Options sheet for elective courses highlighted in green, red and blue.

Revised 13 November 2008