Chemical Engineering Concentration Model Program

This worksheet is for students entering Calvin in the Fall of 2009 or later.

First Year

Fall (16)	☐	4	Chemistry 103	General Chemistry (F)
	☐	2	Engineering 101	Intro to Engineering Design (F)
	☐	2	Engineering 181	Graphical Communication Lab (F)
	☐	4	Mathematics 171	Calculus I (F,S)
	☐	*3*	*English 101*	*Written Rhetoric*
	☐	1	Interdisiplinary 149	First Year Prelude
INT	☐	*3*	*Interdisiplinary 150*	*Developing the Christian Mind*
Spring (17)	☐	4	Engineering 106	Engineering Chemistry and Materials Science (S)
	☐	4	Mathematics 172	Calculus II (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 and Fitness*	*(PER 101-112)*

Second Year

Fall (16)	☐	4	Engineering 202	Statics and Dynamics (F,S)
	☐	3	Mathematics 270	Multivariable Calculus (F,S)
	☐	4	Physics 235	Introductory Physics: Electricity and Magnetism (F)
	☐	2	Mathematics 241	Engineering Statistics (F)
	☐	*3*	*Religion 121 or 131*	Biblical Literature/Christian Theology
	☐	0	Engineering 295	Internship Workshop
INT	☐	3	Free Elective (or consider taking *IDIS 103 here in place of IDIS 102* later)	
Spring (17)	☐	4	Engineering 209	Intro to the Laws of Conservation & Thermodynamics (F,S)
	☐	4	Engineering 204	Intro to Circuit Analysis and Electronics with Lab (f,S)
	☐	4	Mathematics 231	Differential Equations with Linear Algebra (F,S)
	☐	*3*	*Economics 151 or 221*	*Principles of Economics/Principles of Microeconomics*
	☐	2	Computer Science 104	Applied C++ (S) (CS 106 or 108 may be substituted but both are 4 credit hours)
	☐	0	Engineering 294	Seminar

Third Year

Fall (17)	☐	3	Engineering 303	Chem. Engr. Principles & Thermodynamics (F)
	☐	5	Chemistry 261	Organic Chemistry I (F)
	☐	4	Chemistry 317	Physical Chemistry I (F)
	☐	*3*	*The Arts*	*See Core Curriculum section of catalog for options*
	☐	*2*	*IDIS 102*	*Oral Rhetoric for Engineers (F,S)*
INT	☐	*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 II (S)
	☐	*1*	*Health and Fitness*	*(PER 120-159) (or during interim)*
	☐	*3*	*Philosophy 153*	*Fundamental Questions in Philosophy*

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 about details.

Fourth Year

Fall (16)	☐	4	Engineering 331	Kinetics/Reactor Design
	☐	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)
INT	☐	3	Engineering Special Topics Elective	
Spring (17)	☐	2	Engineering 337	Chemical Engineering Laboratory (S)
	☐	4	Engineering 340	Senior Design Project (S)
	☐	4	Engineering 342	Process Control (S)
	☐	*3*	*Literature*	*See Core Curriculum section of catalog for options*
	☐	3	Free Elective	
	☐	*1*	*Health and Fitness*	*(PER 160-189) (or during interim)*
	☐	0	Engineering 394	Engineering Seminar (For students admitted for fall 2009 or later)

Pink listings (core courses) may be swapped as long as ALL are completed.
See Elective Options sheet for elective courses highlighted in green, red , orange, and blue.

Other Requirements

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

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CALVIN Engineering