Electrical & Computer Engineering Concentration Model Program

First Year

Fall (17)	☐ 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
INT	☐ 3	*Interdisciplinary 150*	*Developing the Christian Mind*
Spring (15)	☐ 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 Core Curriculum section of catalog for options*
	☐ 1	*Health and Fitness*	*(See catalog)*

★ENGR 20x - All these courses are required but can be taken in any order:
-ENGR 202* - Statics and Dynamics
-ENGR 204 - Intro to Circuit Analysis and Electronics with Lab
-ENGR 209 - Intro to Conservation Laws & Fluid Mechanics
* Course offered on the Summer Program in Germany.

Second Year

* Possibly insert Summer Program in Germany

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)
INT	3	Free Elective (consider taking IDIS 103 *here in place of* *IDIS 102* or an Off-campus interim)	
Spring (17)	☐ 4	Engineering 20x ★	
	☐ 4	Engineering 20x ★	
	☐ 4	Mathematics 231	Differential Equations with Linear Algebra (F,S)
	☐ 3	Economics 151 or 221	Principles of Economics/or Microeconomics (ECON 232 or 233 may be substituted)
	☐ 2	Statistics 241	Engineering Statistics (S)
	☐ 0	Engineering 294	Seminar

Third Year

* Possibly insert Summer Program in Germany

Fall (17)	☐ 4	Engineering 311	Electronic Devices and Circuits (F)
	☐ 4	Engineering 307	Electrical Signals and Systems (F)
	☐ 4	Computer Science 112	Intro to Data Structures with C++ (F,S)
	☐ 3	*The Arts*	*See Core Curriculum section of catalog for options*
	☐ 2	*Interdisciplinary 102*	*Oral Rhetoric for Engineers (F,S)*
INT	☐ 3	*Interim of your choice. Ideal slot for meeting the Cross-Cultural Engagement requirement **	
Spring (16)	☐ 4	Engineering 304	Fundamentals of Digital Systems (S)
	☐ 4	Engineering 332	Analog Circuits and Systems Design (S)
	☐ 4	Elective: Basic Science or Math or Engineering Elective or Tech. Elective	
	☐ 1	*Health and Fitness*	*(See catalog) (or during Interim)*
	☐ 3	*Philosophy 153*	*Fundamental Questions in Philosophy*
	1	Engineering 384	Sustainability Analysis (S) (Required for students seeking Sustainaibility Designation)

Fourth Year

Fall (15)	☐ 4	Engineering 325	Computer Architecture and Digital Systems Design (F)
	☐ 2	Engineering 339	Senior Design Project (F)
	☐ 3	*Literature*	*See Core Curriculum section of catalog for options*
	☐ 4	Engineering Elective (Minimum of 3 credits -- see catalog for restrictions)	
	☐ 2	Business 357	Business Aspects for Engineers (F)
INT	☐ 3	Engineering Special Topics Elective	
Spring (16)	☐ 4	Engineering 302	Engineering Electromagnetics (S)
	☐ 4	Engineering 340	Senior Design Project (S)
	☐ 4	Elective: Basic Science or Advanced Math	
	☐ 1	*Health and Fitness*	*(See catalog) (or during interim)*
	☐ 3	Free Elective	
	☐ 0	Engineering 394	Engineering Seminar

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

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

Other Requirements

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

Calvin Engineering

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