

## Electrical & Computer Engineering Concentration Model Program

### First Year

<b>Fall (16)</b>	<input type="checkbox"/>	4	Chemistry 103	General Chemistry (F)
	<input type="checkbox"/>	2	Engineering 101	Intro to Engineering Design (F)
	<input type="checkbox"/>	2	Engineering 181	Graphical Communication Lab (F)
	<input type="checkbox"/>	4	Mathematics 171	Calculus I (F,S)
	<input type="checkbox"/>	3	<i>English 101</i>	<i>Written Rhetoric</i>
	<input type="checkbox"/>	1	Interdisciplinary 149	First Year Prelude
<b>INT</b>	<input type="checkbox"/>	3	<i>Interdisciplinary 150</i>	<i>Developing the Christian Mind</i>
<b>Spring (17)</b>	<input type="checkbox"/>	4	Engineering 106	Engineering Chemistry and Materials Science (S)
	<input type="checkbox"/>	4	Mathematics 172	Calculus II (F,S)
	<input type="checkbox"/>	4	Physics 133	Introductory Physics, Mechanics and Gravity (F,S)
	<input type="checkbox"/>	4	<i>History 151 or 152</i>	<i>History of the West and the World</i>
	<input type="checkbox"/>	1	<i>Health and Fitness</i>	<i>(PER 101-112)</i>

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

### Second Year

<b>Fall (16)</b>	<input type="checkbox"/>	4	Engineering 202	Statics and Dynamics (F,S)
	<input type="checkbox"/>	3	Mathematics 270	Multivariable Calculus (F,S)
	<input type="checkbox"/>	4	Physics 235	Introductory Physics: Electricity and Magnetism (F)
	<input type="checkbox"/>	2	<i>Mathematics 241</i>	<i>Engineering Statistics (F)</i>
	<input type="checkbox"/>	3	<i>Economics 151 or 221</i>	<i>Principles of Economics/Principles of Microeconomics</i>
	<input type="checkbox"/>	0	Engineering 295	Internship Workshop
<b>INT</b>	<input type="checkbox"/>	3	Free Elective (or consider taking <i>IDIS 103 here in place of IDIS 102 later</i> )	
<b>Spring (16)</b>	<input type="checkbox"/>	4	Engineering 209	Intro to the Laws of Conservation & Thermodynamics (F,S)
	<input type="checkbox"/>	4	Engineering 204	Intro to Circuit Analysis and Electronics with Lab (F,S)
	<input type="checkbox"/>	4	Mathematics 231	Differential Equations with Linear Algebra (F,S)
	<input type="checkbox"/>	3	<i>Religion 121 or 131</i>	<i>Biblical Literature/Christian Theology</i>
	<input type="checkbox"/>	2	Computer Science 104	Applied C++ (S) (CS 106 or 108 may be substituted but both are 4 credit hours)
	<input type="checkbox"/>	0	Engineering 294	Seminar (for students entering Calvin fall 2009 or later.)

### Third Year

<b>Fall (17)</b>	<input type="checkbox"/>	4	Engineering 311	Electronic Devices and Circuits (F)
	<input type="checkbox"/>	4	Engineering 307	Electrical Signals and Systems (F)
	<input type="checkbox"/>	4	Computer Science 112	Intro to Data Structures with C++ (F,S)
	<input type="checkbox"/>	3	<i>The Arts</i>	<i>See Core Curriculum section of catalog for options</i>
	<input type="checkbox"/>	2	<i>IDIS 102</i>	<i>Oral Rhetoric for Engineers (F,S)</i>
<b>INT</b>	<input type="checkbox"/>	3	<i>Cross-Cultural Engagement</i>	
<b>Spring (16)</b>	<input type="checkbox"/>	4	Engineering 304	Fundamentals of Digital Systems (S)
	<input type="checkbox"/>	4	Engineering 332	Analog Circuits and Systems Design (S)
	<input type="checkbox"/>	4	Elective: <i>Basic Science</i> or <i>Math</i> or <i>Engineering Elective</i>	
	<input type="checkbox"/>	1	<i>Health and Fitness</i>	<i>(PER 120-159) (or during Interim)</i>
	<input type="checkbox"/>	3	<i>Philosophy 153</i>	<i>Fundamental Questions in Philosophy</i>

**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

<b>Fall (15)</b>	<input type="checkbox"/>	4	Engineering 325	Computer Architecture and Digital Systems Design (F)
	<input type="checkbox"/>	2	Engineering 339	Senior Design Project (F)
	<input type="checkbox"/>	3	<i>Literature</i>	<i>See Core Curriculum section of catalog for options</i>
	<input type="checkbox"/>	4	<i>Engineering Elective (Minimum of 3 credits -- see catalog for restrictions)</i>	
	<input type="checkbox"/>	2	Business 357	Business Aspects for Engineers (F)
<b>INT</b>	<input type="checkbox"/>	3	Engineering Special Topics Elective	
<b>Spring (16)</b>	<input type="checkbox"/>	4	Engineering 302	Engineering Electromagnetics (S)
	<input type="checkbox"/>	4	Engineering 340	Senior Design Project (S)
	<input type="checkbox"/>	4	Elective: <i>Basic Science</i> or <i>Advanced Math</i>	
	<input type="checkbox"/>	1	<i>Health and Fitness</i>	<i>(PER 160-189) (or during interim)</i>
	<input type="checkbox"/>	3	Free Elective	
<input type="checkbox"/>	0	Engineering 394	Engineering Seminar	

*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)*