

## 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 (17)</b>	<input type="checkbox"/>	4	Engineering 202	Statics and Dynamics (F,S)
	<input type="checkbox"/>	4	Mathematics 271	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 2xx	Internship Workshop
<b>INT</b>	<input type="checkbox"/>	3	Free Elective (or consider taking <i>CAS 101 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 (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)
	<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>	
	<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	Engineering Elective (Minimum of 3 credits -- see catalog for restrictions)	
	<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)*



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MINDS IN THE MAKING