

Mechanical Engineering Concentration Model Program - 2023-24 Graduates

First Year

Fall (17)	<input type="checkbox"/>	5 Chemistry 101	General Chemistry (F,S)
	<input type="checkbox"/>	3 Engineering 101	Intro to Engineering Design (F)
	<input type="checkbox"/>	1 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 Seminar
INT	<input type="checkbox"/>	3 <i>Interdisciplinary 150</i>	<i>Developing the Christian Mind</i>
Spring(15)	<input type="checkbox"/>	3 Engineering 205	Material Science (S)
	<input type="checkbox"/>	4 Mathematics 172	Calculus II (F,S)
	<input type="checkbox"/>	4 Physics 133	Introductory Physics, Mechanics and Gravity (S)
	<input type="checkbox"/>	3 <i>History Core</i>	<i>See Core Curriculum section of catalog for options</i>
	<input type="checkbox"/>	1 <i>Health and Fitness</i>	<i>See Core Curriculum section of catalog for options</i>

★ ENGR 20x - 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 as part of the Summer Program in Germany.

* Possibly insert Summer Program in Germany

Second Year

Fall (16)	<input type="checkbox"/>	4 Engineering 20x* ★	
	<input type="checkbox"/>	3 Mathematics 270/271	Multivariable Calculus - Math 270 (F only), Math 271 (F,S)
	<input type="checkbox"/>	4 Physics 235	Introductory Physics: Electricity and Magnetism (F)
	<input type="checkbox"/>	2 Computer Science 104	Applied Computing (F) (CS 106 or 108 may be substituted but both are 4 SH)
	<input type="checkbox"/>	3 <i>Religion 121 or 131</i>	<i>Biblical Literature/Christian Theology</i>
	<input type="checkbox"/>	0 Engineering 295	Internship Workshop
	<input type="checkbox"/>	1 Engineering 184	Sustainability Challenges (F) (Required for students seeking Sustainability Designation)

Spring (17)	<input type="checkbox"/>	4 Engineering 20x ★	
	<input type="checkbox"/>	4 Engineering 20x ★	
	<input type="checkbox"/>	4 Mathematics 231	Differential Equations with Linear Algebra (F,S)
	<input type="checkbox"/>	3 <i>Economics 221 or 151</i>	<i>Principles of Economics/or Microeconomics</i> (ECON 232 or 233 may be substituted)
	<input type="checkbox"/>	2 <i>Statistics 241</i>	<i>Engineering Statistics (S)</i>
	<input type="checkbox"/>	0 Engineering 294	Seminar

* Possibly insert Summer Program in Germany

Third Year

Fall (17)	<input type="checkbox"/>	4 Engineering 305	Mechanics of Materials (F)
	<input type="checkbox"/>	4 Engineering 319	Intro. To Thermal/Fluid Sciences (F)
	<input type="checkbox"/>	4 Elective: <i>Basic Science</i> or <i>Advanced Math</i>	
	<input type="checkbox"/>	3 <i>The Arts</i>	<i>See Core Curriculum section of catalog for options</i>
	<input type="checkbox"/>	2 <i>Interdisciplinary 102</i>	<i>Oral Rhetoric for Engineers (F,S)</i>

Spring(16)	<input type="checkbox"/>	4 Engineering 322	Machine Design with Finite Element Analysis (S)
	<input type="checkbox"/>	4 Engineering 328	Intermediate Thermal/Fluid Sciences & Design (S)
	<input type="checkbox"/>	3 Engineering 334	Dynamics of Machinery (S)
	<input type="checkbox"/>	1 Engineering 382	Engineering Instrumentation Laboratory (S)
	<input type="checkbox"/>	1 <i>Health and Fitness</i>	<i>See Core Curriculum section of catalog for options</i>
	<input type="checkbox"/>	3 <i>Philosophy 153</i>	<i>Fundamental Questions in Philosophy</i>
	<input type="checkbox"/>	1 Engineering 384	Sustainability Analysis (S) (Required for students seeking Sustainability Designation)

Fall (15)	<input type="checkbox"/>	4 Engineering 333	Thermal Systems Designs (F)
	<input type="checkbox"/>	2 Engineering 339	Senior Project (F)
	<input type="checkbox"/>	3 <i>Literature</i>	<i>See Core Curriculum section of catalog for options</i>
	<input type="checkbox"/>	4 Elective: <i>Basic Science, Advanced Math, Engineering, or Technical</i>	
	<input type="checkbox"/>	2 Business 357	Business Aspects for Engineers (F)

Pink listings (core humanities courses) may be taken in any semester. ECON should be taken prior to BUS 357. PHIL 153 and REL 121/131 should be taken prior to ENGR 340.

Fourth Year

Spring (16)	<input type="checkbox"/>	4 Engineering 324	Materials & Processes in Manufacturing (S)
	<input type="checkbox"/>	4 Engineering 340	Senior Design Project (S)
	<input type="checkbox"/>	4 Engineering Elective	ENGR 314, 315, or 342
	<input type="checkbox"/>	3 <i>Engineering Elective</i>	
	<input type="checkbox"/>	1 <i>Health and Fitness</i>	<i>See Core Curriculum section of catalog for options</i>
	<input type="checkbox"/>	0 Engineering 394	Engineering Seminar

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

Other Requirements

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