

Civil & Environmental Engineering Concentration Model Program (Starting Fall 2021)

First Year	Fall (16)	<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>Core Foundations</i> <i>Community and Commitments</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
	Spring (17)	<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>Core Foundations</i> <i>Foundations of Christianity I</i> <input type="checkbox"/> 3 <i>Core Comp and Skills</i> <i>Foundational Writing</i>	
Second Year	* Possibly insert Summer Program in Germany		
	Fall (17)	<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>Core Foundations</i> <i>Foundations of Christianity II</i> <input type="checkbox"/> 1 <i>Core Comp and Skills</i> <i>Health and Movement</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>ECON 151/221/232/233</i> <i>Core Knowledge and Understanding (see Core Options Sheet)</i> <input type="checkbox"/> 2 <i>Statistics 241</i> <i>Engineering Statistics (S)</i> <input type="checkbox"/> 0 Engineering 294 Engineering Seminar (does not require registration in advance)	
	* Possibly insert Summer Program in Germany		
Third Year	Fall (18)	<input type="checkbox"/> 4 Engineering 305 Mechanics of Materials (F) <input type="checkbox"/> 4 Engineering 306 Environmental Engineering (F) <input type="checkbox"/> 4 Engineering 320 Hydraulic I Engineering (F) <input type="checkbox"/> 4 <i>Core Knowledge and Understanding (see Core Options sheet) - tagged</i> <input type="checkbox"/> 2 <i>Interdisciplinary 102</i> <i>Oral Rhetoric for Engineers</i> <input type="checkbox"/> 1 Engineering 384 Sustainability Analysis (Required for students seeking Sustainability Designation)	
	Spring (17)	<input type="checkbox"/> 4 Engineering 308 Environmental Engineering Design (S) <input type="checkbox"/> 4 Engineering 321 Hydraulic Engineering Design (S) <input type="checkbox"/> 4 Engineering 326 Structural Analysis (S) <input type="checkbox"/> 4 <i>Engineering Elective</i> <input type="checkbox"/> 1 <i>Core Comp and Skills</i> <i>Health and Movement</i>	<i>Pink listings (core humanities courses) may be taken in any semester. ECON should be taken prior to BUS 357.</i> See University Catalog or Elective Options sheet for courses allowed for the green, red, orange, blue and purple categories. Classes shaded in light brown are optional.
	Internship Experience (ENGR 385 Optional)		
	Fall (16)	<input type="checkbox"/> 4 Engineering 327 Structural Design (F) <input type="checkbox"/> 4 Elective: <i>Basic Science</i> , <i>Adv. Math</i> , <i>Engr</i> , or <i>Technical</i> <input type="checkbox"/> 2 Engineering 339 Senior Design Project (F) - Core Cont Challenges <input type="checkbox"/> 4 <i>Core Knowledge and Understanding (see Core Options sheet) - tagged</i> <input type="checkbox"/> 2 Business 357 Business Aspects for Engineers (F)	
Spring (16)	<input type="checkbox"/> 4 Elective: <i>Basic Science</i> or <i>Advanced Math</i> <input type="checkbox"/> 4 Engineering 340 Senior Design Project (S) <input type="checkbox"/> 4 <i>Core Knowledge and Understanding (see Core Options sheet) - tagged</i> <input type="checkbox"/> 4 <i>Engineering Elective (2 SH minimum)</i> <input type="checkbox"/> 0 Engineering 394 Engineering Seminar (does not require registration in advance)		

Other Requirements

- 0-8 *Core Comp and Skills: World Languages I (3 years in HS with B or better)*
- 0-3 *Engaged Citizenship Commitment Tag: Diversity and Difference*
- 0-3 *Engaged Citizenship Commitment Tag: Environmental Sustainability*
- 0-3 *Engaged Citizenship Commitment Tag: Global Regions and Cultures*

Revised Mar 2023