

Civil & Environmental Engineering Concentration Model Program - 2022 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	★ 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
	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>		

* 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)
	INT	<input type="checkbox"/> 3 Free Elective (consider taking IDIS 103 here in place of IDIS 102 or taking an off-campus interim)
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	

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Third Year	Fall (16)	<input type="checkbox"/> 4 Engineering 305 Mechanics of Materials (F) <input type="checkbox"/> 4 Engineering 320 Hydraulic Engineering (F) <input type="checkbox"/> 4 Engineering 306 Environmental Engineering (F) <input type="checkbox"/> 3 <i>The Arts</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>	
	Spring (17)	<input type="checkbox"/> 4 Engineering 326 Structural Analysis (S) <input type="checkbox"/> 8 Two of { Engineering 321 - Hydraulic Engineering Design (S)** Engineering 308 - Environmental Engineering Design (S)** Engineering Elective <input type="checkbox"/> 2 <i>Interdisciplinary 102</i> <i>Oral Rhetoric for Engineers (F,S)</i> <input type="checkbox"/> 3 <i>Philosophy 153</i> <i>Fundamental Questions in Philosophy</i>	
Fourth Year	Fall (15)	<input type="checkbox"/> 8 Two of { Engineering Elective Engineering 327 - Structural Design (F)** Elective: Basic Science , Adv. Math , Engr , or Technical <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"/> 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. See Elective Options sheet for courses allowed for the green, red, orange, blue and purple categories. Classes shaded in light brown are optional. **All students must take at least: - two from ENGR 308, 321, or 327 - two engineering electives - one basic sci/advanced math elective - one bas sci/adv math/engr/tech elective
	Spring (13)	<input type="checkbox"/> 4 Elective: Basic Science or Advanced Math <input type="checkbox"/> 4 Engineering 340 Senior Design Project (S) <input type="checkbox"/> 4 One of { Elective: Basic Science , Adv. Math , Engr , or Technical Engineering Elective <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 <input type="checkbox"/> 3 Free Elective <input type="checkbox"/> 1 Engineering 384 Sustainability Analysis (S) (Required for students seeking Sustainability Designation)	

Other Requirements

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