

# Civil Engineering (CIVL)

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## Freshman

Fall	Hours	Spring	Hours
MATH 1610 Calculus I		4 MATH 1620 Calculus II	4
CHEM 1030 Fundamentals Chemistry I		3 PHYS 1600 Engineering Physics I	4
CHEM 1031 Fundamental Chemistry I Laboratory		1 COMP 1220 Introduction to Computing with Python	2
ENGR 1100 Engineering Orientation		0 ENGL 1120 English Composition II	3
ENGR 1110 Introduction to Engineering		2 POLI 1090 American Government in Multicultural World	3
ENGL 1100 English Composition I	3		
HIST 1010 World History I <b>or</b> 1210 Technology and Civilization I (or HIST 1020 or 1220) <sup>1</sup>	3		
	<b>16</b>		<b>16</b>

## Sophomore

Fall	Hours	Spring	Hours
MATH 2630 Calculus III		4 MATH 2650 Linear Differential Equations	3
PHYS 1610 Engineering Physics II		4 CHEM 1040 Fundamental Chemistry II	3
ENGR 2050 Statics		3 ENGR 2070 Mechanics of Materials	3
<b>CIVL 2010 Surveying</b>		<b>3 ENGR 2200 Introduction To Thermodynamics, Fluids And Heat Transfer</b>	<b>3</b>
STAT 3010 Statistics for Engineers and Scientists		3 ENGR 2350 Dynamics	3
		Core Literature <sup>1</sup>	3
	<b>17</b>		<b>18</b>

## Junior

Fall	Hours	Spring	Hours
<b>CIVL 3010 Civil Engineering Analysis</b>		<b>4 CIVL 3110 Hydraulics</b>	<b>4</b>
<b>CIVL 3310 Geotechnical Engineering I</b>		<b>4 CIVL 3230 Environmental Engineering</b>	<b>4</b>
<b>CIVL 3410 Construction Engineering</b>		<b>3 CIVL 3510 Transportation Engineering</b>	<b>4</b>
<b>CIVL 3610 Structural Analysis</b>		<b>4 CIVL 3820 Civil Engineering Materials</b>	<b>3</b>
	<b>15</b>		<b>15</b>

## Senior

Fall	Hours	Spring	Hours
PHIL 1040 Business Ethics <b>or</b> 1110 Ethical and Conceptual Foundations of Science		3 Core Fine Arts	3
Science Elective <sup>2</sup>		4 Core History/Social Science <sup>1</sup>	3
<b>Breadth Elective I<sup>2</sup></b>		<b>3 Breadth Elective III<sup>2</sup></b>	<b>3</b>
<b>Breadth Elective II<sup>2</sup></b>		<b>3 Technical Elective II<sup>2</sup></b>	<b>3</b>
<b>Technical Elective I<sup>2</sup></b>		<b>3 Senior Design Project<sup>2</sup></b>	<b>3</b>

**Total Hours: 128**

- <sup>1</sup> The AU Bulletin lists the University Core Curriculum requirements for students in the College of Engineering. Students must complete a sequence in either Literature or History. Because of the discipline-specific requirements for the Humanities courses, it is recommended that a History sequence be completed.
- <sup>2</sup> Breadth electives, technical electives, the science elective, and the senior design project must be selected from lists of approved courses available from the Department of Civil and Environmental Engineering. Each student must take a breadth elective in at least three of seven specialty areas: construction, environmental, geotechnical, pavements and materials, structural, transportation, and water resources engineering.