



## Designing The Future

Employment of civil engineers is projected to grow by 11 percent between 2016 and 2026, according to the Bureau of Labor Statistics. Our civil engineering program prepares students with foundations in math, science, and engineering through required courses. Then, students take technical electives in the focus areas of structural, geotechnical, environmental, water resources, transportation, railroad, or ocean and coastal engineering. Minors in civil engineering, environmental engineering, sustainable infrastructure, and environmental sustainability are also offered.

Our faculty are active researchers, ensuring that the content of the undergraduate program is constantly renewed and maintained at a challenging technical level and integrates discovery learning. Opportunities abound for undergraduates to work with faculty and graduate students as research assistants, either for pay or independent study credit. Research in the department covers a broad range of topics with particular strengths in bridge design, construction, evaluation and rehabilitation; applications of composite materials to concrete, steel, and earth structures; field studies and numerical and physical modeling of wave/shoreline interactions; intelligent transportation systems; management and operation of civil infrastructure systems; natural disaster risk modeling and sustainability.

## CAREER PATHS:

Structural Engineer  
Geotechnical Engineer  
Transportation Engineer  
Project Engineer  
Coastal Engineer  
Director of Public Works  
Airport or Railway Engineer **and more!**

## GRADUATE SCHOOL FOR:

MS or PhD in Engineering  
Engineering Management  
Engineering Mechanics  
Public Policy & Administration  
MBA  
Civil, Environmental and Coastal Engineering  
**and more!**

**CE.UDEL.EDU**



## Two degrees at once

Well-qualified civil engineering majors may apply to the 4+1 program to earn a bachelor's degree in Civil Engineering (BCE) and a Master of Civil Engineering (MCE) degree within 5 years.

## Real-world experience

An optional co-op program provides students the opportunity to gain valuable experience working in the profession while completing their degree. With careful planning and proper selection of courses, students can work full-time for up to 26 weeks and still graduate in four years.

## Course topics you may explore:

- Structural Engineering
  - Geotechnical Engineering
  - Environmental Engineering
  - Water Resources
  - Transportation
  - Railroad Engineering
  - Coastal Engineering
- and more!*

## Civil Engineering Curriculum:

To earn a bachelor's degree, students must complete 125 credits and meet specific requirements as outlined in the online catalog. See UD Catalog for additional details.

### FIRST YEAR

FALL	Credits	SPRING	Credits
EGGG 101 - Introduction to Engineering (FYE)	2	CIEG 161 - Introduction to Civil Engineering Design	3
CHEM 103 - General Chemistry	4	PHYS 207 - Fundamentals of Physics I	4
MATH 241 - Analytic Geometry & Calculus A	4	MATH 242 - Analytic Geometry & Calculus B	4
CISC 106 - General Computer Science for Engineers	3	ENGL 110 - Seminar in Composition	3
Breadth Requirement Elective 1	3	COMM 212 - Oral Communication in Business	3
<b>Total Credits: 16</b>		<b>Total Credits: 17</b>	

### SECOND YEAR

FALL	Credits	SPRING	Credits
CIEG 211 - Statics	3	CIEG 212 - Solid Mechanics	3
CIEG 402 - Intro to Sustainability Principles in Civil Engineering	3	CIEG 213 - Civil Engineering Materials Lab	1
MATH 243 - Analytic Geometry & Calculus C	4	CIEG 214 - Construction Materials	3
ENGL 410 - Technical Writing*	3	CIEG 315 - Probability and Statistics for Engineers	3
Science Elective with Lab	4	MATH 351 - Engineering Mathematics I	3
		CIEG 411 - Communicating with Stakeholders in EG	3
<b>Total Credits: 17</b>		<b>Total Credits: 16</b>	

### THIRD YEAR

FALL	Credits	SPRING	Credits
CIEG 301 - Structural Analysis	4	CIEG 321 - Geotechnical Engineering	3
CIEG 320 - Soil Mechanics	3	CIEG 351 - Transportation Engineering	3
CIEG 323 - Soil Mechanics Laboratory	1	CIEG 451 - Transportation Engineering Lab	1
CIEG 305 - Fluid Mechanics	3	CIEG 486 - Engineering Project Management	3
CIEG 306 - Fluid Mechanics Laboratory	1	Breadth Requirement Elective 2**	3
CIEG 331 - Environmental Engineering	3	Technical Elective	3
<b>Total Credits: 15</b>		<b>Total Credits: 16</b>	

### FOURTH YEAR

FALL	Credits	SPRING	Credits
CIEG 461 - Senior Design Project (DLE & Capstone)	2	CIEG 461 - Senior Design Project (DLE)	2
Technical Elective 2	3	Technical Elective 5	3
Technical Elective 3	3	Technical Elective 6	3
Technical Elective 4	3	Breadth Requirement Elective 4	3
Breadth Requirement Elective 3**	3	Breadth Requirement Elective 5	3
<b>Total Credits: 14</b>		<b>Total Credits: 14</b>	

## CONTACT US:

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