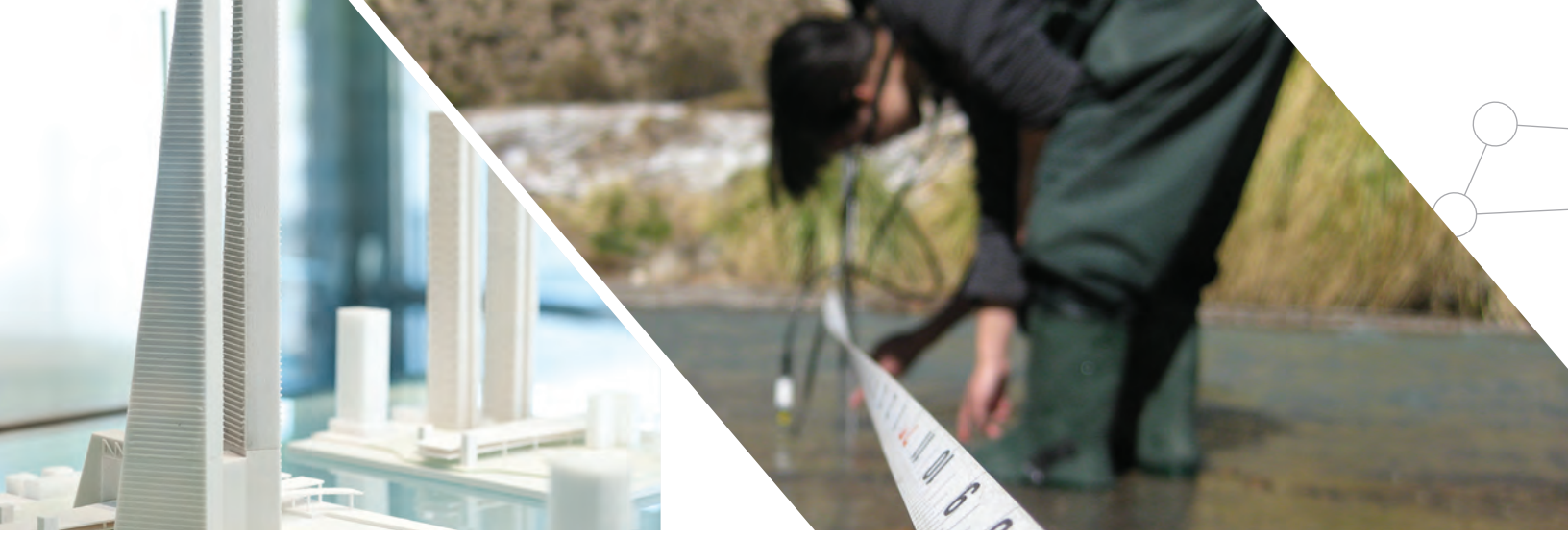


# CIVIL ENGINEERING





# CIVIL ENGINEERING

The **DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING** offers highly acclaimed undergraduate and graduate programs of study. Our bachelor of science degree programs are accredited by the Engineering Accreditation Commission of ABET ([www.abet.org](http://www.abet.org)).

The department's faculty includes internationally renowned scholars and researchers as well as clinical professors and adjunct faculty who bring extensive professional practice experience to the classroom. **State-of-the-art facilities, small class size, faculty-student interaction, high job placement rates, and the success of our graduates all attest to the excellence of our programs.** The department also offers opportunities for scholarships, research assistantships, internships, and design project experience.

## UNDERGRADUATE STUDY

### PROGRAMS OF STUDY

- \ Bachelor of science in civil engineering
- \ Minor in environmental engineering
- \ Certificate in Architectural Engineering and Design
- \ Kellogg Certificate Program for undergraduates

### EXAMPLE COURSES

- CIV\_ENV 320 *Structural Dynamics (Earthquake Engineering)*
- CIV\_ENV 320 *Structural Art*
- CIV\_ENV 325 & 323  
*Reinforced Concrete & Structural Steel Design*
- CIV\_ENV 330 *Construction Management*
- CIV\_ENV 371  
*Introductory Transportation Planning and Analysis*

### OUTSIDE THE CLASSROOM

**UNDERGRADUATE RESEARCH** \ Students may conduct independent research under the guidance of a faculty member or participate in a research project with graduate students.

**NATIONAL COMPETITIONS** \ Undergraduates compete in several annual national competitions, including Concrete Canoe, where they design, build, and race a canoe made entirely of specially engineered, lightweight concrete, and Steel Bridge, where they design, fabricate, and construct a 20-foot scale model of a steel bridge.

**AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)** \ The Northwestern student chapter, an official affiliate of the national professional organization, offers students opportunities to interact professionally and socially among students of similar interest and with the Chicago engineering community.

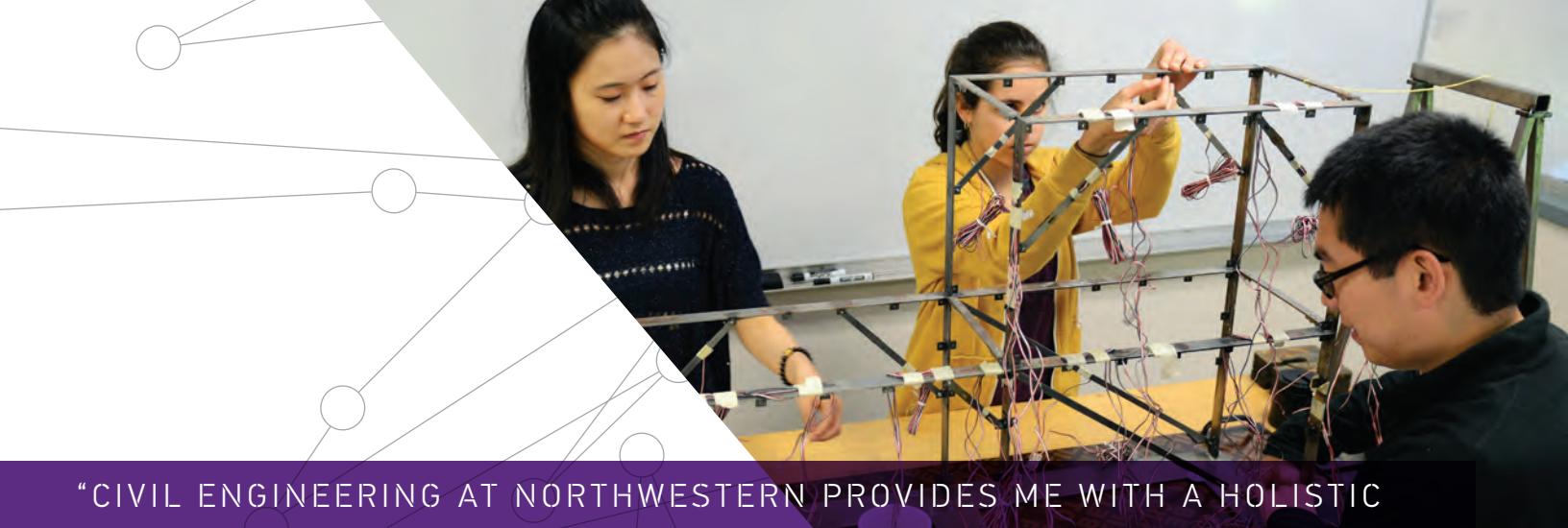
## GRADUATE STUDY

### PROGRAMS OF STUDY

- \ Master of science in civil engineering
- \ PhD in civil engineering

### RESEARCH AREAS

- Structural stability and failure \ Natural hazards \
- Transportation logistics \ Autonomous vehicles \
- Sustainable infrastructure \ Nanomodification of cement \
- Nondestructive testing \ Mechanics of flexible electronic materials and bioinspired materials \ Modeling travel behavior



“CIVIL ENGINEERING AT NORTHWESTERN PROVIDES ME WITH A HOLISTIC LOOK INTO THE FIELD—FROM DESIGNING IN THE ARCHITECTURE STUDIO TO SOLVING MATHEMATICAL PROBLEMS IN STRUCTURAL ENGINEERING TO RESEARCHING THE LATEST INNOVATIVE CONSTRUCTION METHODS.”

LUPE GOMEZ \ CIVIL ENGINEERING

## CAREERS IN CIVIL ENGINEERING

### WHAT'S NEXT?

The annual Department of Civil and Environmental Engineering Career Fair attracts companies from wide-ranging industries interested in recruiting students for internships and permanent positions in:

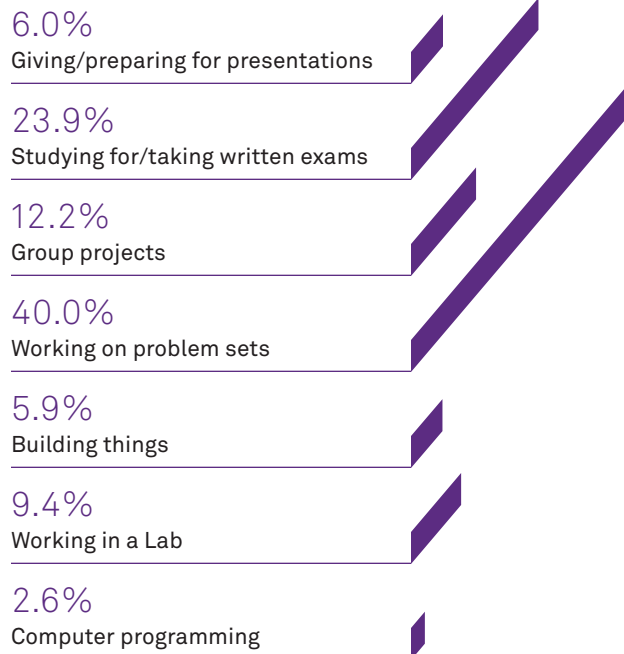
Infrastructure engineering consulting \ Design engineering \ Consulting \ Transportation infrastructures and planning \ Project management \ Finance \ Energy infrastructure design

### RECENT GRADUATE PLACEMENTS

- \ Project architect at **Booth Hansen, Inc.**
- \ Project engineer at **Thornton-Tomasetti, Inc.**
- \ Mechanical design engineer at **Boeing**
- \ Civil engineer at **USDA Forest Service**
- \ Project manager at **Ryan Companies**
- \ Project engineer at **CN**
- \ Structures supervisor at **BNSF Railway**
- \ EU Transportation project manager at **Amazon**
- \ Subsea engineer at **BP**
- \ Structural design engineer at **KPFF Consulting Engineers**
- \ Transportation engineer at **Jacobs**

## HOW YOU SPEND YOUR TIME IN THIS PROGRAM

BASED ON A SURVEY OF CURRENT STUDENTS.



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# ENVISION WHAT'S POSSIBLE

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NORTHWESTERN ENGINEERING STUDENTS  
CONSTANTLY EXPLORE NEW PATHWAYS  
IN CIVIL ENGINEERING. IMAGINE YOURSELF:

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- \ Redesigning urban infrastructure and deploying renewable energy systems
  - \ Promoting sustainable practices in energy, water, food, transportation, waste, and materials
  - \ Building longer, taller, and lighter structures with new materials and construction techniques
  - \ Analyzing and solving natural hazard threats

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# FIND YOUR DIRECTION HERE

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Northwestern | McCORMICK SCHOOL OF  
ENGINEERING

[www.cee.northwestern.edu](http://www.cee.northwestern.edu)