How do I become a CEVE Student?

Sign up for CEVE101: Fundamentals of Civil & Environmental Engineering in the fall of your freshman year. Sophomores are invited to sign up too! Everything else will be explained your first week of class!

Global trends of mega-urbanization, population growth, climate change-related disasters, aging infrastructure, higher pollution, energy security concerns, and decreasing availability of natural resources will place an unprecedented demand for leadership from CEE over the next 25 years. Our challenges have never been clearer or more urgent.
# Overview

- **12.5 Faculty** + 3 professors of the practice
- 60 Undergraduate students
- 61 Graduate students
- 49 Doctoral candidates
- 12 Masters students
- 10 Postdoctoral fellows
- 5 Research scientists

Annual research expenditure

What is Civil & Environmental Engineering (CEVE)? Enhance the sustainability of urban systems that are stressed by demographic explosion, mega-urbanization and climate change. CEVE students are well positioned to solve critical and emerging grand challenges of complex urban systems, including renewal of aging infrastructure, prediction, mitigation and recovery from extreme events, sustainable use of natural resources, pollution control, and enhancing water and energy security.

## Degrees offered

The department offers two degrees: B.S. Civil Engineering and B.A. Civil and Environmental Engineering. Both tracks offer a student a robust curriculum, with small class sizes and hands-on opportunities for research and design.

- **B.S. Civil Engineering (ABET Accredited)** – 132 hrs.
  - Contact Dr. Bedient: bedient@rice.edu
  - The B.S. is designed to prepare students for a career in engineering and offers innovative and challenging courses while still providing significant flexibility to the student.

- **B.A. Civil & Environmental Engineering** – 120 hrs.
  - Contact Dr. Tomson: mtomson@rice.edu
  - The B.A. offers a Civil or Environmental Engineering emphasis and allows both tracks to be tailored to the specific needs of each student.

## Undergraduate Programs

<table>
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<th>Four Focus Areas</th>
<th>Two Courses in Each</th>
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</thead>
<tbody>
<tr>
<td><strong>Environmental Engineering</strong></td>
<td>Advisor: Dr. Mason Tomson <a href="mailto:mtomson@rice.edu">mtomson@rice.edu</a></td>
</tr>
<tr>
<td><strong>Urban Hydrology and Water Resources</strong></td>
<td>Advisor: Dr. Philip Bedient <a href="mailto:bedient@rice.edu">bedient@rice.edu</a></td>
</tr>
<tr>
<td><strong>Urban Infrastructure and Management</strong></td>
<td>Advisor: Dr. Leonardo Dueñas-Osorio <a href="mailto:leonardo.duenas-osorio@rice.edu">leonardo.duenas-osorio@rice.edu</a></td>
</tr>
<tr>
<td><strong>Structural Engineering and Mechanics</strong></td>
<td>Advisor: Dr. Satish Nagarajaiah <a href="mailto:satish.nagarajaiah@rice.edu">satish.nagarajaiah@rice.edu</a></td>
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</tbody>
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Take a moment to look at the world around you. You might see buildings, bridges, roads, sidewalks, or walk a river flow. While these are everyday things that you may take for granted, they are also things that civil and environmental engineers have a hand in designing, building or maintaining.

For example, Dr. Jamie Padgett’s research focuses on risk assessment of structures and infrastructure such as bridges and buildings exposed to multiple threats, including earthquakes, hurricanes, aging and deterioration, and Dr. Dan Cohan’s research involves satellite data and energy policy. For further information on faculty research, visit ceve.rice.edu.

## Undergraduate Experience

**Curtis Feronti, Sid Richardson College '13**

Curtis came to Rice from Plano, Texas totally undecided on his major freshman year. Since choosing to pursue civil engineering mid-way through his first spring semester, he’s only become happier with his decision. He’s concentrating in the environmental focus area and has been involved as an EcoRep, PAA, and head of Sid’s green committee. This summer Curtis has been researching the use of nanoparticles to improve water treatment in developing nations with a solar-powered autoclave.

**Tatyana Luftenschlager, Will Rice, '13**

Tatyana is focusing on hydrology and Environmental Policy Studies. She worked as a summer fellow for the Center for Civic Engagement on a research project with the City of Houston looking at Low Impact Development in neighborhoods. She is a teaching assistant and has worked on the solution manual for a hydrology book in addition to assisting on a green roofs research project. She interned with the Shell Center for Sustainability working on a list of sustainability professors on the Rice University campus. Luftenschlager is the defensive captain for the Will Rice Powderpuff team and she is also an active member of Engineers Without Borders. She is also the Will Rice Eco-Rep and serves on the Head of the Will Rice Greens Committee.

**Chris Chan, Jones '13**

Concentrating in Structures and Urban Infrastructure, Chris is interested in designing sustainable cities and buildings of the future. His college career includes an international array of experiences, from studying abroad in Hong Kong, researching in Germany, and working in Shanghai. He co-authored a paper that was accepted and presented at the Engineering Honors Symposium. His research is being collaborated on by Dr. Philip Bedient. Chris is currently one of the co-Principals of the Rice Chapter American Society of Civil Engineers and hopes to continue his aspirations in graduate school.

## Student Life as a CEE Major

- **American Society of Civil Engineers (ASCE):** ASCE promotes civil engineering as a course of study and ultimately a profession to the students of Rice University. We sponsor a spring career fair, outreach and social events, and club meetings where students can learn about possible employers and relevant topics in engineering today. Additionally, we participate in national ASCE competitions like Concrete Canoe and the Mids Student Paper, as well as regional and national conferences.

- **Engineers Without Borders:** The Rice University Chapter of Engineers Without Borders is a student-run organization dedicated to collaboration with communities in the developing world aimed at providing sustainable and culturally appropriate engineering solutions that improve quality of life without harming society or environment while forming strong intercultural relationships and understanding. Through these projects, Rice-EWB encourages the development of socially and environmentally conscious engineers with outstanding leadership skills and practical, hands-on, international engineering experience.

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Undergraduate students from the Department of Civil and Environmental Engineering help build a bridge in Nicaragua. The students traveled with the Engineers Without Borders organization of the College of Engineering.

A CEVE student cultiva on the field.

Tau Beta Pi is the only engineering honor society representing the entire engineering profession. It is the nation’s second-oldest honor society, founded at Lehigh University in 1885 to mark in a fitting manner those who have conferred honor upon their Alma Mater by distinguished scholarship and exemplary character as students in engineering, or by their attainments as alumni in the field of engineering, and to foster a spirit of liberal culture in engineering colleges. There are now collegiate chapters at 236 US colleges.