BACHELOR OF SCIENCE IN

Civil Engineering

Lawrence Tech
THEORY AND PRACTICE 1932

Civil engineers are leaders in the design, construction, and maintenance of the infrastructure on which society depends: airports, bridges, buildings, highways, ports, and waterways. They are high-level employees for construction companies, government agencies, and consulting firms. Many have the entrepreneurial spirit and establish their own design or construction businesses. Civil engineers work on environmental projects, such as ecological restoration, waste containment, and soil remediation. Whether called upon to assess how to rid brownfield sites of contamination, reduce airport noise, or design a safe and efficient transportation system, civil engineers use their analytical skills and professional judgment to solve some of modern society's most pressing problems.

As a civil engineer, you will be required to possess a strong technical background in math and science as well as excellent communication skills. Lawrence Technological University's Bachelor of Science in Civil Engineering program combines intensive course work in these areas with an emphasis on design that culminates in a two-semester team project in your senior year. Past student-designed projects include a marina, hotel, "green" office complex, mass transit system, regional airport, riverfront land development, steel bridge, NASCAR speedway, and even a concrete canoe!

Computer applications and graphical systems are integrated throughout the curriculum, in courses such as construction, environmental, geotechnical, hydraulic, structural, and transportation engineering. Your choice of technical electives allows you to specialize in a particular design discipline or pursue a more generalized design or construction-focused program.

The Civil Engineering program is accredited by the Accreditation Board for Engineering and Technology.

CURRICULUM

Your 132-credit-hour program consists of:

Basic Science, Communications, Computer Science, Math	40
Humanities (with emphasis on leadership)	19
Civil Engineering Core	58
Engineering/Technical Electives	15
Total	**132**

Sample Courses

Civil Engineering Management Practices
Computer Applications Lab
Concrete Design
Cost Estimating, Bidding, and Contracting
Environmental Engineering
Foundation Engineering
Highway Engineering
Hydraulic Engineering
Structural Design and Testing Lab
Surveying and Land Measurement

"In my classes, the encouragement for problem solving was always there and that's what engineering is: take a problem and find a solution to it. The curriculum not only gives you theories but also encourages their use in labs, classrooms, and on special projects."

James Cassel, BCvE'99, Field Engineer, Barton Malow

"I learned a lot at Lawrence Tech and was able to participate in a number of substantial research projects. I have benefited from the University's excellent reputation. My education has provided me the opportunity to work for an international company, with a presence in 50 countries."

Emad Nasr Ibrahim, MSCE'02,Vice President, Onyx Alexandria

Graduates with a degree in Civil Engineering have many career options:

Construction and manufacturing
Design, consulting, and testing firms
Environmental engineering
Geotechnical engineering
Government agencies
Hydraulic/water resource engineering
Structural engineering
Transportation engineering
Urban planning

Why Civil Engineering at Lawrence Tech?

Lawrence Tech's applied research partnerships with industry and government agencies give you an opportunity, even as an undergraduate, to gain invaluable hands-on experiences. Among the University's first-rate facilities is the highly acclaimed Center for Innovative Materials Research, which develops and investigates highway bridge, defense, and homeland security applications. A joint effort with DTE Energy, the regional utility company, enables students to study the operation of the first and largest hydrogen technology park of its type in the world. Lawrence Tech also provides opportunities in green design, watershed, and sustainable construction practices.

Another unique option is participation in the Lear Entrepreneurial Program, which focuses on what it takes to run your own company – to create, promote, and market products and services. No matter what your interest, Lawrence Tech offers you a path to success.

In recent years, Lawrence Tech's civil engineering graduates have enjoyed a 100 percent placement rate. The U.S. Bureau of Labor Statistics predicts that job opportunities in civil engineering will increase by as much as 20 percent by 2010. Recent National Society of Professional Engineers income and salary surveys peg the median annual salary for civil engineers at approximately $77,000.

Getting Started

For more information, including information for transfer and international students, visit ltu.edu/engineering/civil/undergrad.asp or contact Lawrence Tech's Office of Admissions at 800.CALL.LTU or admissions@ltu.edu.

GET MORE. DO MORE.

Lawrence Technological University produces leaders with an entrepreneurial spirit and a global view. That's why most Lawrence Tech students are employed within a month of graduating. Your benefits:

- Leadership Program that helps you develop the marketable skills that employers seek
- Leadership Portfolio that enhances your diploma – and your resume
- 12:1 student-faculty ratio
- Faculty with current industry experience
- Fully loaded high-powered laptop or tablet computer provided
- Schedules that work for you, with convenient day, evening, weekend, or online classes
- Hi-tech, wireless 102-acre campus that's commuter friendly, with recreation, housing, and meal service options
- Financial-aid, co-op, and internship opportunities
- Proactive career placement services

Explore over 80 undergraduate, master's, and doctoral programs in Colleges of Architecture and Design, Arts and Sciences, Engineering, and Management.

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Leaders in the Making

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