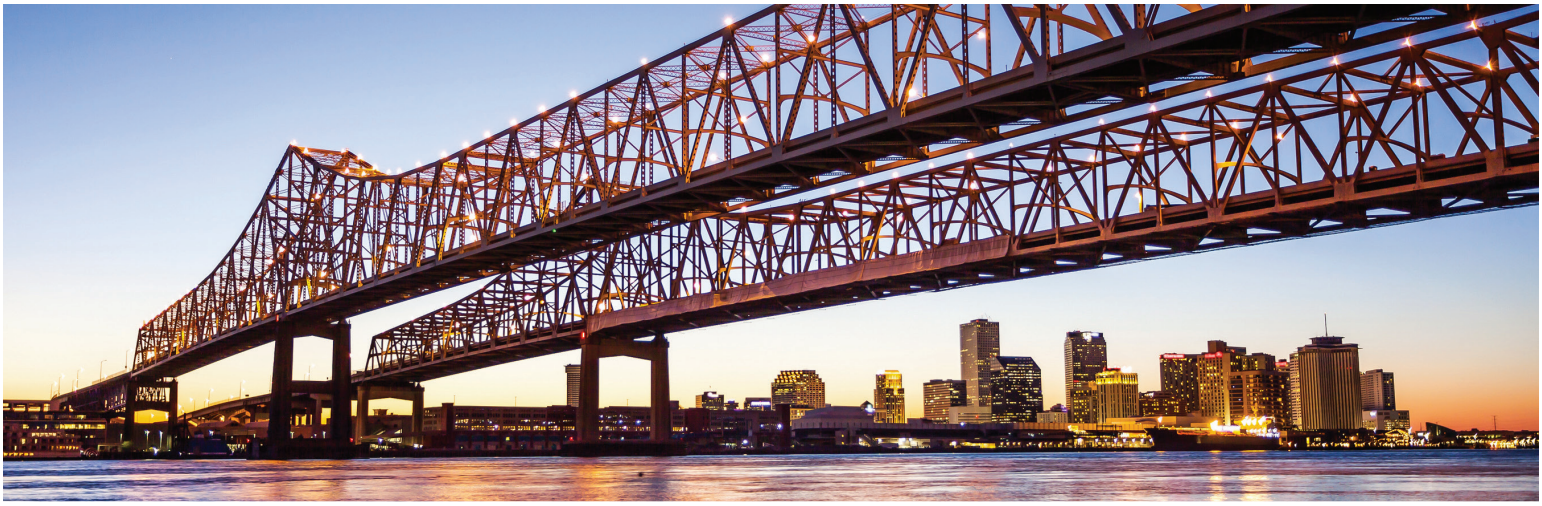


CIVIL ENGINEERING

Civil engineering is focused on the design, installation, and maintenance of infrastructure systems. At LSU, we draw inspiration from Louisiana s critical infrastructure needs, and use them as a springboard to develop civil engineers who can solve the world's problems.

What Do Civil Engineers Do?

Civil engineers are the experts behind any number of structures and systems we use every day. They are required for the design, construction, and maintenance of large-scale infrastructure projects such as bridges, buildings, levees, highways, and canals, but they may also work on large-scale surveying projects and coastal subsidence. At LSU, there are six sub-disciplines students can choose from as part of their curriculum:

- Mechanics of Materials—steel, concrete, pavement, etc.
- Structures—bridges, buildings, etc.
- Water Resources—rivers, levees, etc.
- Transportation—traffic systems, highways, and roadways
- Geotechnical—soils, foundations, and coastal subsidence
- Geodesy—surveying

Capstone Senior Design Experience

As part of the capstone senior design experience, students work in teams over a two-semester sequence to complete a real-world project of their choice. Some recent projects include:

- Modeling the 2016 flood in Livingston Parish in Louisiana
- Designing a replacement of the US-165 Rail Road Overpass Bridge in Morehouse Parish.
- Designing a commercial building considering wind loads

Projects are typically inspired by local challenges and guided by industry mentors, connecting students to professionals in the field.

PROGRAM FACTS

2020–2021 Enrollment: 462 Students

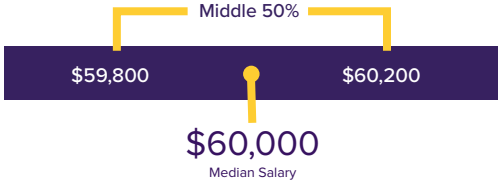
Minors: Environmental Engineering, Structural Engineering, Surveying, Transportation Engineering

Student Organizations: American Society of Civil Engineers (ASCE); Institute for Transportation Engineers (ITE); Louisiana Water and Environmental Association (LWEA)

- Department of Transportation
- Structural design firms
- Petrochemical industry
- U.S. Army Corp of Engineers

GRADUATE STARTING SALARIES

Median full-time in field salary info for graduates of the last three years



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THE LOWER MISSISSIPPI RIVER MODEL

Professor Clint Willson is the director of the Center for River Studies, which houses the recently completed Lower Mississippi River Model. This physical model of the lower 180 miles of the river was designed using millions of real-world data points and was carved out of high-density foam. The model spans more than 10,000 square feet and is being used to study how sediment diversions could impact the continuing threat of coastal erosion to Louisiana's wetlands.

Civil Engineering

CURRICULUM OVERVIEW

YEAR 1	YEAR 2	YEAR 3	YEAR 4
Introduction to Civil Engineering Practice	Statics	Fluid Mechanics Lab	Capstone Design Project
General Chemistry I	Fluid Mechanics	Mechanics of Materials (Strengths) Lab	Design Elective in Geotechnical or Transportation
General Chemistry II	Mechanics of Materials (Strengths)	Plane Surveying and Measurements	Professional Issues and Concept Design in Civil Engineering
General Geology: Physical	Dynamics and Vibrations	Geotechnical Engineering	Hydrology
Physics I: Particle Mechanics	Engineering Materials Lab	Geotechnical Engineering Lab	Analysis or Design Elective in Civil Engineering
Basic Science Lab Elective	Circuits	Structural Analysis	Technical or Design Elective in Civil Engineering
Calculus I: Differential Calculus in One Dimension	Physics II: Fluids, Thermodynamics, Waves, and Modern Physics	Principles of Reinforced Concrete	General Ed: Social Sciences
Calculus II: Integral Calculus in One Dimension	Intro to Statistics	Principles of Highway and Traffic Engineering	General Ed: Humanities
General Ed: English Comp I	Elementary Differential Equations	Water Resources Engineering	General Ed: Humanities
General Ed: Life Science	Calculus III: Multidimensional Integral and Differential Calculus	Water/Waste Treatment	General Ed: Humanities
	General Ed: Arts	Principles of Micro and Macro Economics	
		General Ed: English Comp II	

LEGEND

- Major-specific Engineering
- Other Engineering
- Science
- Math
- General Education

Detailed curriculum flow-charts: https://www.lsu.edu/eng/current/resources/flowcharts.php