As the world’s population continues to rise and environmental concerns put pressure on our global infrastructure, civil engineers are needed to plan, design and construct solutions to these complex challenges. Florida Tech’s civil engineering program fosters innovative and independent thinking to prepare you for leadership positions in private industry as well as government and military organizations.

Why Civil Engineering at Florida Tech?
As a national leader in engineering research, Florida Tech is home to many high-tech research facilities and world-renowned faculty. Students have access to various labs, including Wind and Hurricane Impacts Research Laboratory (WHIRL), Computer Aided Design (CAD) Laboratory, Surveying Materials, Soils and Hydraulics Laboratory as well physics and chemistry labs. Through rigorous hands-on course work and diverse research opportunities, you will advance your expertise and skillset to build the infrastructures of the future.

Doctoral Program
Florida Tech’s Ph.D. program in civil engineering enables students to conduct advanced research in the many facets affecting civil engineering today. The Ph.D. program empowers students to design solutions to the many engineering challenges facing the world’s infrastructure and plan for future needs. Earning your Ph.D. from Florida Tech not only increases your earning potential, but better positions you to attain leadership positions in the public and private sector. For full-time doctoral graduate research assistants, full-pay tuition scholarships are available.

Areas of Specialization
The graduate program in civil engineering provides you with the unique opportunity to earn your graduate degree in one of six areas of specialization. Prior to beginning the program, you will map out your own plan of study with a faculty mentor whose professional field is aligned to your interests and career goals. Areas of specialization include:

- Construction Management (Ph.D. not available)
- Environmental Engineering
- Geotechnical Engineering
- Structural Engineering
- Transportation and Highway Design
- Water Resources Engineering

WHAT TO EXPECT
Florida Tech’s civil engineering program features a close-knit community of professionals as well as easily accessible teachers. You will work with students and professors from all over the world, providing you with a unique global perspective on teamwork and the necessary leadership skills needed to meet the challenges of building the world’s infrastructure in the 21st century.
Research Centers
Located in the heart of the Space Coast, Florida Tech collaborates with numerous organizations that provide hands-on research and employment opportunities, including:

- National Science Foundation
- Federal Emergency Management Agency
- Florida Department of Transportation
- St. Johns River Water Management District
- Florida Department of Community Affairs
- Florida Sea Grant
- Florida Department of Emergency Management

Research Recap
The master’s thesis provides students with the opportunity to undertake their own research project and earn six elective credit hours. Some of the examples of research conducted by students who completed a master’s thesis include:

- Developing highway reuse applications for Florida waste materials
- Instrumentation and automation of the Pavement Pressuremeter
- Specification for using recycled pavement as base, sub-base or general highway fill
- Development of wind vulnerability models for residential buildings
- Study of cost effectiveness of hurricane mitigation measures
- Testing of scaled models for buildings under multi-hazard loading and development of new methods to control wind and seismic vibrations
- Causes and methods for preventing excessive pile rebound during driving
- Monitoring the construction and service life of highway bridges using structural health monitoring technology
- Performance of high-performance concrete in adverse environments
- Estimation of nutrient loads in the Indian River Lagoon using numerical models
- Measurement and modeling of salt transport below an estuary

Careers
The Bureau of Labor Statistics projects 19.4 percent employment growth for civil engineers between 2010 and 2020. Many civil engineers choose to work for a state or local government where they design and oversee the construction of roads, buildings and bridges. Related work can also be found outside of government in the private sector at consulting or construction firms. While careers in design, construction and teaching can also be pursued, many students choose to continue their education and earn a Ph.D.

Faculty
All faculty members are professional engineers and have conducted research in a variety of specialized areas such as bridge, environmental, geotechnical, hydraulic, structural, water resources, and wind and seismic engineering. The faculty offers a rich and varied background including professional and consulting experience as well as military experience. Through their strong personal and professional international experience in many different parts of the world including Asia, Latin America, Europe and the Middle East, our professors are able to share the values of cultural diversity within the workplace.

Research Portal
Want to learn more about the cutting-edge research happening at Florida Tech? Visit our research portal and discover something new.

www.fit.edu/research/portal

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