



Engineering and Computer Science Majors

Civil Engineering

About

The field applies math and science to plan, design, construct, manage, monitor, improve and repair the built environment. The major sub-disciplines are structural engineering (buildings, bridges, offshore structures, etc.), geotechnical engineering (soils, foundations, tunnels, pavements, etc.), engineering mechanics (behavior of materials), water resources engineering (water supply, demand and forecasting, water infrastructure, extreme events, water policy, etc.), and transportation engineering (movement of people and goods, traffic, safety, transportation infrastructure management, etc.). Civil engineers are directly responsible for improving quality of life and safety for global society, and have a professional and ethical responsibility to the public for doing so.

Coursework Includes

- Geotechnical Engineering
- Engineering Economic Analysis
- Mechanics of Materials
- Highway Engineering
- Environmental Engineering
- Structural Analysis
- See program requirements in the UCF undergraduate catalog at catalog.ucf.edu

Where Civil Engineering Graduates Work

- Design firms (HNTB, Parsons Brinckerhoff, CH2M Hill, AECOM)
- Construction firms and contractors (e.g., Wharton-Smith, Turner, Skanska, Hubbard)
- Consulting firms (Atkins, Kimley-Horn, Bowman, Kleinfelder, Terracon)
- Large companies with design, consulting, construction and contracting services (Disney, Boeing, etc.)
- Government agencies at the national, state and municipal level
- Transportation agencies (e.g., Florida Department of Transportation) district or state offices
- Water management districts (St. Johns Water Management District)
- Energy and alternative energy industry (wind, offshore wind and wave, hydroelectric power)

Typical Starting Salary / Possible Job Titles

\$54,300. Design Engineer; Project Engineer; Project Manager; Engineering Specialist; Threshold Inspector; Estimator; Modeler; Structural Engineer; Geotechnical Engineer; Transportation Engineer; Highway Engineer; Hydrology or Hydraulic Engineer; Water Resources Engineer; Dam Engineer; Land Surveyor.

Related Student Organizations at UCF

American Society of Civil Engineers
American Concrete Institute
American Institute of Steel Construction
American Society of Highway Engineers
Engineers Without Borders
Institute of Transportation Engineers
American Water Resources Association

Related Minors

Engineering Leadership
International Engineering

Contact

Dept. of Civil, Environmental &
Construction Engineering
407-823-2841; cece.ucf.edu

University of Central Florida

Located in Orlando, Florida, UCF is one of the nation's largest universities with more than 66,000 students from all 50 states and 152 countries. UCF's 13 colleges offer 212 degree programs. Students find community and camaraderie in more than 600 registered student organizations. To learn more, visit www.ucf.edu/admissions.

College of Engineering and Computer Science

With 10,000+ students, the college is among the nation's top producers of engineers and computer scientists. Students receive rigorous instruction, enhanced with real-world hands-on experiences, to graduate with solid technical skills in 11 majors offered: aerospace engineering; civil engineering; computer engineering; computer science; construction engineering; electrical engineering; environmental engineering; industrial engineering; information technology; mechanical engineering; and optics and photonics.

During their academic career, students benefit from unique and innovative leadership and diversity-based support programs, such as the UCF Engineering Leadership & Innovation Institute (eli²) (eli2.cecs.ucf.edu), and renowned STEM retention programs described in detail at stem.ucf.edu/stem-programs-at-ucf.

UCF Rankings

- Nation's #1 workforce supplier to the aerospace and defense industry (*Aviation Week*, 2015, 2016)
- Ranks 11th among U.S. public universities for number of National Merit Scholars (289).
- *Kiplinger*, *Forbes* and *The Princeton Review* rank a UCF education among the nation's best values.
- Ranks #1 in nation, #13 in world among 13,000 regional teams, 2017 Association of Computing Machinery's International Collegiate Programming Competition.
- Home to three-time national champions: UCF Collegiate Cyber Defense Competition Team – 2014, 2015, 2016.
- U.S. Southeast Programming Team Champions – 2012, 2013, 2014, 2015, 2016.
- Ranks #5 out of 225 U.S. universities for number of patents granted, and #22 for success in research that leads to new technologies, products and companies (*2017 Milken Institute report*).
- Top choice of high school seniors in Florida and in the 12 states of the U.S. Southeast region (*2016 Cappex College Considerations Report*)



UNIVERSITY OF CENTRAL FLORIDA
*has been designated as a
National Center of Academic Excellence
in Cyber Defense Education*



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