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 catalog at http://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; http://cece.ucf.edu
University of Central Florida
UCF’s 13 colleges provide education and opportunities to 64,000 students from all 50 states and 152 countries. Located in Orlando, Florida, UCF is one of the nation's largest universities with 212 degree programs from which to choose. Students find community and camaraderie in more than 600 registered student organizations. See the UCF Viewbook at www.ucf.edu/admissions to learn more.

College of Engineering and Computer Science
With nearly 10,000 students, the college is among the nation’s top producers of engineers and computer scientists. Students receive rigorous instruction and graduate with solid technical skills.

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

These programs are among the many reasons why the University of Central Florida was recognized along with Harvard, MIT, Stanford and Duke as one of the nation’s most innovative universities in U.S. News & World Report Best Colleges 2016 guide.

UCF Rankings
- Nation's #1 workforce supplier to the aerospace and defense industry (Aviation Week, 2015, 2016)
- Ranked #3 in nation, #28 in world, 2016 Association of Computing Machinery's International Collegiate Programming Competition.
- Ranked #1 among all state universities in Florida for performance measures that include graduation rates and graduates' employment and wages (Florida Board of Governors 2016)
- No. 1 choice of high school seniors in Florida and in the 12 states of the U.S. Southeast region (2016 Cappex College Considerations Report)