

## **Computer Science and Engineering (CSE) Program Summary**

### **Notable Features:**

- Degree Designation: Bachelor of Science in Engineering with Major in Computer Science and Engineering
- Full technical content of a BSE in Computer Engineering
- Full technical content of a BS in Computer Science
- Compatible with ACM/IEEE Computer Science 2013 and Computer Engineering 2016 curricular guidelines
- 128 S.H of coursework (same as other engineering programs)
- Administered by the ECE Department; Jointly taught by CE and ECE faculty

### **Coursework:**

#### **Rhetoric and General Education**

- same as other engineering programs

#### **Math and Basic Science:**

- Engr. Math I -IV (no Vector Calculus)
- Prob. & Stat for Engr. And Phys. Sciences
- Discrete Structures
- Principles of Chem I (including lab)
- Physics I and II (including labs)

#### **Engineering/CS Core:**

- Engineering Problem Solving II
- Computer Science I: Fundamentals (instead of EPS I)
- Statics
- Electrical Circuits
- Thermodynamics
- Computers in Engineering

#### **Program Core:**

- Linear Systems I (ECE)
- Principles of Electronic Instrumentation (ECE)
- Digital Design (ECE)
- CSII: Data Structures (CS)
- Software Design (ECE)
- Computer Arch. Arch and Organization (ECE)
- Embedded Systems (ECE)
- Algorithms (CS)
- Programming Language Concepts (CS)
- Communication Networks (ECE)
- Operating Systems (CS)

**Program Electives (subject to minor revisions):**

- Theory Elective (Theory of Computation or Logic in CS)
- EFA #1 free
- EFA #2 (technical, CS)
- EFA #3 (technical, ECE))
- EFA #4 (Advanced, CS)
- EFA #5 (Advanced, ECE)

**Capstone Design**

- Principles of ECE Design
- ECE Senior Design

**Seminars:**

- Engineering Success for First Year Students
- ECE Professional Seminar