Electrical Engineering and Computer Science

Students in the electrical engineering and computer science department have three degree programs from which to choose: electrical engineering, computer engineering and computer science. The electrical and computer engineering programs are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. The Bachelor of Science degree program in computer science is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

The programs are structured to assure that electrical engineering students are familiar with computers and computer hardware and computer engineers and scientists have a background in electrical engineering principles. Electrical engineering, computer engineering and computer science students should have a strong interest in mathematics and science. As part of the curriculum, senior-level students are required to take a two-semester senior project sequence. This project gives the student the opportunity to apply skills acquired during their coursework to real-world problems.

Electrical Engineering

The program educational objectives of the electrical engineering program are as follows:

1. The alumni, in the first several years after receiving their baccalaureate degree, will be productive and successful in the professional practice of electrical engineering as evidenced by:
   a. Job satisfaction and contributions toward the success of one’s employers;
   b. Effective participation and leadership on engineering teams;
   c. Being effective in identifying and solving real-world problems;
   d. Being effective at handling increased responsibilities;
   e. Receipt of job-related awards, promotions/raises, and professional accomplishments.

2. The alumni, in the first several years after receiving their baccalaureate degree, will be successful in pursuing continuing education as evidenced by:
   a. Effective progression toward an advanced postgraduate degree or professional licensure/certification;
   b. Participation in professional societies, professional conferences and meetings;
   c. Participation in life-long learning by adapting to new technologies, tools and methodologies in electrical engineering, and responding to the challenges of a changing environment;
   d. Scholarly accomplishments (e.g., publications, presentations);
   e. Professional self-study.

Computer Engineering

The program educational objectives of the computer engineering program are as follows:

1. The alumni, in the first several years after receiving their baccalaureate degree, will be productive and successful in the professional practice of computer engineering as evidenced by:
   a. Job satisfaction and contributions toward the success of one’s employers;
   b. Effective participation and leadership on engineering teams;
   c. Being effective in identifying and solving real-world problems;
   d. Being effective at handling increased responsibilities;
   e. Receipt of job-related awards, promotions/raises, and professional accomplishments.

2. The alumni, in the first several years after receiving their baccalaureate degree, will be successful in pursuing continuing education as evidenced by:
   a. Effective progression toward an advanced postgraduate degree or professional certification;
   b. Participation in professional societies, professional conferences and meetings;
   c. Participation in life-long learning by adapting to new technologies, tools and methodologies in computer engineering, and responding to the challenges of a changing environment;
   d. Scholarly accomplishments (e.g., publications, presentations);
   e. Professional self-study.

The computer engineering degree is a more structured degree compared to electrical engineering, with more required courses and thus fewer electives.

Computer Science

The program educational objectives of the computer science program are as follows:

1. The alumni, in the first several years after receiving their baccalaureate degree, will be productive and successful in the professional practice of computing as evidenced by:
   a. Job satisfaction and contributions toward the success of one’s employers;
   b. Effective participation and leadership on computing/engineering teams;
   c. Being effective in identifying and solving real-world problems;
   d. Being effective at handling increased responsibilities;
   e. Receipt of job-related awards, promotions/raises, and professional accomplishments.

2. The alumni, in the first several years after receiving their baccalaureate degree, will be successful in pursuing continuing education as evidenced by:
   a. Effective progression toward an advanced postgraduate degree or professional certification;
   b. Participation in professional societies, professional conferences and meetings;
   c. Participation in life-long learning by adapting to new technologies, tools and methodologies in computing, and responding to the challenges of a changing environment;
   d. Scholarly accomplishments (e.g., publications, presentations);
   e. Professional self-study.

The computer science degree offers courses that emphasize core computer science concepts and their applications.

Majors in Electrical Engineering and Computer Science

- BS in Electrical Engineering (http://catalog.wichita.edu/undergraduate/engineering/electrical-engineering-computer-sciences/electrical-engineering-bs)
• BS in Computer Engineering (http://catalog.wichita.edu/undergraduate/engineering/electrical-engineering-computer-sciences/computer-engineering-bs)
• BS in Computer Science (http://catalog.wichita.edu/undergraduate/engineering/electrical-engineering-computer-sciences/computer-science-bs)
• Dual/Accelerated BS to MS in Computer Science (http://catalog.wichita.edu/undergraduate/engineering/electrical-engineering-computer-sciences/dualaccelerated-bs-ms-computer-science)
• Dual/Accelerated BS to MS in Computer Networking (http://catalog.wichita.edu/undergraduate/engineering/electrical-engineering-computer-sciences/dualaccelerated-bs-ms-computer-networking)

**Minors in Electrical Engineering and Computer Science**
• Computer Science (http://catalog.wichita.edu/undergraduate/engineering/electrical-engineering-computer-sciences/computer-science-minor)

**Courses in Electrical Engineering and Computer Science**
• Computer Science (CS) (http://catalog.wichita.edu/undergraduate/courses/cs)\(^1\)
• Electrical Engineering (EE) (http://catalog.wichita.edu/undergraduate/courses/ee)\(^2\)

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\(^1\) For a computer science course to be used as a prerequisite, it must have been passed with a C- or better.

\(^2\) For a course to be used as a prerequisite, it must have been passed with a C- or better.