Electrical and Computer Engineering

Students in the electrical and computer engineering department have three undergraduate degree programs from which to choose: electrical engineering, cybersecurity and computer engineering. Both electrical and computer engineering programs are accredited by the Engineering Accreditation Commission of ABET (http://www.abet.org).

The BS in electrical engineering program is structured to assure that students are familiar with design, development and implementation of complex circuits for wide range of applications, including energy, healthcare, communication, computing, transportation and robotics. The BS in computer engineering program is structured to assure that students are familiar with design, development and implementation of computing systems by integrating principles from both electrical engineering and computer science. Electrical engineering and computer engineering students should have a strong interest in problem solving, aptitude for design thinking and ability to apply 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.

BS in Electrical Engineering

Program educational objectives (PEOs) are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies.

The objective of the electrical engineering program is to produce graduates who, after a few years beyond graduation,

1. Support economic growth through adapting to new technologies, tools, and methodologies, and changing environment.
2. Are effective in problem solving and handling increased responsibilities.
3. Contribute to their teams through effective participation, expressing their vision, being responsible for their actions and taking up leadership roles.
4. Contribute to the profession through participation in professional societies, conferences and meetings and be recognized through promotions and professional accomplishments.
5. Seek technical advancement through any of the following: (i) post-undergraduate degree, (ii) professional licensure/certification, (iii) professional self-study, (iv) publications and (v) presentations.

The electrical engineering degree has a sufficient number of technical electives to allow the student to develop skills in specialized areas such as communication and signal processing, control systems, electric power systems, electronics and digital systems.

BS in Computer Engineering

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The objective of the electrical engineering program is to produce graduates who, after a few years beyond graduation,

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5. Seek technical advancement through any of the following: (i) post-undergraduate degree, (ii) professional licensure/certification, (iii) professional self-study, (iv) publications and (v) presentations.

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

Majors in Electrical and Computer Engineering

- Accelerated BS to MS in Electrical and Computer Engineering (http://catalog.wichita.edu/undergraduate/engineering/electrical-computer-engineering/accelerated-bs-ms-electrical-computer-engineering/)
- BS in Computer Engineering (http://catalog.wichita.edu/undergraduate/engineering/electrical-computer-engineering/computer-engineering-bs/)
- BS in Cybersecurity (http://catalog.wichita.edu/undergraduate/engineering/electrical-computer-engineering/bs-cybersecurity/)
- BS in Electrical Engineering (http://catalog.wichita.edu/undergraduate/engineering/electrical-computer-engineering/electrical-engineering-bs/)

Courses in Electrical and Computer Engineering

- Electrical and Computer Engineering (ECE) (http://catalog.wichita.edu/undergraduate/courses/ece/)[1]

[1] For an electrical and computer engineering course to be used as a prerequisite, it must have been passed with a *C*- or better.