

MINOR IN ELECTRICAL AND COMPUTER ENGINEERING

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The Minor in Electrical and Computer Engineering (ECE) offers students majoring in disciplines other than ECE the opportunity to become familiar with principles and design practices used to meet the multidisciplinary needs of modern technology. This minor is offered by the faculty of the ECE program and is designed to serve students from other engineering disciplines as well as those students with majors outside of engineering. It is assumed that students who pursue the ECE minor will obtain a mathematics background that is comparable to that required for a major in engineering. The ECE minor stipulates 14 semester credit hours of required courses that provide a fundamental grounding in ECE knowledge and design. These courses include an introduction to design practice, theory-based courses in both analog and digital circuit design, and an introduction to electrical and computer systems. In addition to these fundamental courses, 4 semester credit hours of elective courses assure the students an opportunity to emphasize a particular area of interest.

Required Courses 14 s.h.

- [ECE09.201](#) Network I 2 s.h. Concurrent enrollment in or completion of either: [MATH01.231](#) ODE or [MATH01.235](#) MEA I*
- [ECE09.202](#) Network II 2 s.h.
- [ECE09.241](#) Digital I 3 s.h. or [CS06.310](#) Principles of Digital Computers
- [ECE09.311](#) Electronics I 2 s.h.
- [ECE09.321](#) Systems and Controls I 3 s.h. or [ECE09.331](#) Electrical Communications Systems 4 s.h. Concurrent enrollment in or completion of: [MATH01.210](#) Linear Algebra*
- [ENGR01.301](#) Junior Engineering Clinic I 2 s.h.(must have junior standing in major)

Elective Courses 4 s.h.**

- [ECE09.242](#) Digital II 3 s.h.
- [ECE09.301](#) Engineering Electromagnetics I 2 s.h. or [PHYS02.430](#) Electricity and Magnetism I
- [ECE09.302](#) Engineering Electromagnetics II 2 s.h.
- [ECE09.321](#) Electronics II / VLSI Design 3 s.h.
- [ECE09.331](#) Electrical Communications Systems 4 s.h.
- [ECE09.351](#) Digital Signal Processing 3 s.h.
- [ECE09.443](#) Computer Architecture I 2 s.h.
- [ECE09.444](#) Computer Architecture II 2 s.h.
- [ECE09.402](#) Topics in Electrical and Computer Engineering 3 s.h.
- [ENGR01.302](#) Junior Engineering Clinic 2 s.h. (must have junior standing in major and approval from ECE Project Manager)

Program Total 18 s.h.

*Non-engineering majors enrolled in the ECE minor must complete the following mathematics courses:

- [MATH01.130](#) Calc I
- [MATH01.131](#) Calc II
- [MATH01.230](#) Calc III
- [MATH01.210](#) Linear Algebra
- [MATH01.231](#) Ordinary Differential Equations

**Senior Elective courses may be used as electives in the ECE Minor with permission of the ECE Minor Advisor and the Elective Course instructor.