

ELECTRICAL ENGINEERING

ABOUT THE MINOR

A minor in electrical engineering is open to all students in the University with the prerequisite calculus and physics background. The minor is particularly designed for majors in math, science, computer science, or other engineering departments who would like a coherent background in the theory and laboratory practice of electrical engineering.

For additional information contact:

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A minimum of 20 semester hours of ECE courses are required:

1. 5 SH required from one of the core courses:

EECE 2410 Linear Circuits	4 SH
EECE 2411 Intro to Electrical Engineering Lab	1 SH
OR	
EECE 2210 Electrical Engineering	4 SH
EECE 2211 Electrical Engineering Lab	1 SH

2. 10 SH for two of the following required elective-core courses:

EECE 3440 Intro to Electromagnetic Fields and Waves	4 SH
EECE 3441 Lab for EECE 3440	1 SH
EECE 2412 Intro to Electronics	4 SH
EECE 2413 Electronics Lab	1 SH
EECE 2322 Digital Logic Design	4 SH
EECE 2323 Digital Systems Lab	1 SH

3. 5 SH of electrical engineering technical electives: 5 SH

Electronic Circuits and Devices

EECE 4524 VLSI Design and EECE 4525 VLSI Design Lab

EECE 4574 Wireless Communications Circuits

EECE 4576 Wireless Personal Communication Systems

EECE 4600 Electronic Design and EECE 4601 Electronic Design Lab

EECE 4604 Semiconductor Device Theory

EECE 4606 Integrated Circuit Fabrication

EECE 5684 Power Electronics

Fields, Waves, and Optics

EECE 3440 Intro to EM Fields and EECE 34411 Fields Lab
EECE 4642 Antennas
EECE 4644 Microwave Circuits and Networks
EECE 4646 Optics
EECE 5680 Electric Drives
EECE 5682 Power Systems Analysis and EECE 5683 Power Systems Lab
EECE 5686 Electrical Machines
EECE 5692 Subsurface Sensing and Imaging

Signals and Systems

EECE 3464 Linear Systems
EECE 3468 Noise and Stochastic Processes
EECE 4572 Communications Systems I
EECE 4574 Wireless Communications Circuits
EECE 4576 Wireless Personal Communication Systems
EECE 5580 Control Systems and EECE 5581 Control Systems Lab
EECE 5666 Digital Signal Processing and EECE 5667 DSP Lab

Notes:

- Minor is awarded to students completing the requirements and earning a minimum QPA of 2.0 in the minor coursework.
- Students outside COE and CS may have to take non-EECE pre-requisite courses to gain entry into specified courses.
 - Students who complete core courses (1. above) as part of their major will be given credit towards the minor for these courses.
 - One of the elective-core courses (2. above) may be taken as part of the student's major. Additional elective-core courses taken as part of the major will be considered to satisfy the requirement for two elective-core courses, but will not be otherwise credited toward the minor. Thus, students who take two or more elective-core courses as part of their major must either take one elective-core course that is not part of their major or a total of 10 semester hours credits from technical elective courses.
 - Credit for technical elective courses (3. above) cannot be double counted. i.e., if a technical elective course counts towards fulfillment of the student's major it will not be counted towards the minor.
 - No credit will be given for elective courses that have substantial overlap with courses the student has taken as part of the major.
 - Students must file a petition with the Ellen Zierk in Room 404 Dana to declare the minor prior to taking any coursework.
 - Students should schedule a meeting with Ellen Zierk, prior to graduation, to be cleared for the minor.