

MINOR IN ELECTRICAL AND COMPUTER ENGINEERING

The Electrical and Computer Engineering program at Rowan University is unique in southern New Jersey. The expanding technical job market is creating increased demand for engineering education in general and an ECE minor represents an excellent opportunity for students in technical and scientific majors to expand their knowledge and employment opportunities in the defense and security related industries that predominate in our local area. In addition, the ECE minor would give undergraduate students from mathematics, the physical and biological sciences, and the other engineering disciplines the required background for pursuing graduate work in ECE at Rowan. As the technical workplace becomes more sophisticated, the master's degree is quickly becoming the entry-level requirement for those who wish to pursue careers in either management or product design. The ECE minor will provide students with a smooth transition into the Rowan University engineering master's program in ECE.

Graduation Requirements for the Electrical and Computer Engineering Minor:

Required Courses: Total 14 sch

- 2 sch ECE 09.201 Network I (concurrent enrollment in (or completion of) either MATH 01.231 ODE or MATH 01.235 MEA I)*
- 2 sch ECE 09.202 Network II
- 3 sch ECE 09.241 Digital I (or CS 0706.310 Principles of Digital Computers)
- 3 sch ECE 09.311 Electronics
- 3 sch ECE 09.321 Systems and Controls I or ME 10343 Mechanical System Dynamics and Control or ECE 09.331 Electrical Communications Systems (4 sch.) (concurrent enrollment in (or completion of) 1701.210 Linear Algebra)*
- 2 sch ENGR 01.301 Junior Engineering Clinic I (must have junior standing in major)

15 sch Total

Elective Courses: (take 3 sch)**

- 3 sch ECE 09.242 Digital II
- 3 sch ECE 09.303 Engineering Electromagnetics (or 1902.430 Electricity and Magnetism I)
- 3 sch ECE 09.321 Electronics II – VLSI Design
- 4 sch ECE 09.331 Electrical Communications Systems
- 3 sch ECE 09.351 Digital Signal Processing
- 2 sch ECE 09.443 Computer Architecture I
- 2 sch ECE 09.444 Computer Architecture II
- 3 sch ECE 09.402 Topics in Electrical and Computer Engineering
- 2 sch ENGR 01.302 Junior Engineering Clinic (must have junior standing in major and approval from ECE Project Manager)

Overall Total, minimum of 18 sch

*Non-engineering majors enrolled in the ECE minor must complete the following mathematics courses: Calc I (MATH 01.130), Calc II (MATH 01.131), & Calc III (MATH 01.230), Linear Algebra (MATH 01.210), and Ordinary Differential Equations (MATH 01.231).

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