

ECE DEPARTMENT CO-TERMINAL DEGREE:**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING / MASTER OF SCIENCE IN ELECTRICAL ENGINEERING****Program objectives:**

The objective of this program is to provide an accelerated path for interested undergraduate students in electrical engineering to complete the Bachelor of Science in Electrical Engineering (BSEE) and Master of Science in Electrical Engineering (MSEE) degrees with an integrated curriculum, which can be completed in five years. Students enter the co-terminal degree program at the beginning of their third year of study with advanced planning in the fourth year courses to support the curricular requirements in the fifth (final) year.

The undergraduate portion of the curriculum for this co-terminal degree program puts emphasis on both theory and practical applications of electrical engineering. Electrical engineering is concerned with the generation, transmission and utilization of electrical energy and with the transmitting and processing of information. Electrical engineers are involved in the analysis, design and production of electric power, radio, radar, television, computing, telecommunication, control and information systems.

The graduate portion of the curriculum for this co-terminal degree, the Master of Science in Electrical Engineering program, builds a strong foundation across several areas of study within electrical engineering and specialization within one area, which includes an option to pursue thesis research under the guidance of a faculty adviser. Areas of study include communication and signal processing; computers and microelectronics; and power and control systems.

Admission requirements:

Student must be enrolled in the BSEE program, have completed at least 65 credit hours of study toward that degree with a minimum overall GPA of 3.25, and have completed at least 15 credit hours of ECE coursework with a minimum (major) GPA of 3.25.

Requirements for BSEE-MSEE Co-Terminal Degree

Electrical engineering requirements ECE 100, 211, 213, 218, 242, 307, 308, 311, 312, 319

Professional ECE Electives 400-level ECE courses identified with (P) in the course descriptions; at least two of the electives must include a laboratory component. Courses at the 500-level may be substituted with advisor approval, and a maximum of three credits of ECE 491 or ECE 497 may be included with advisor approval.

Mathematics Requirements MATH 151, 152, 251, 252, 333, 474

Physics Requirements PHYS 123, 221, 224

Chemistry Requirement CHEM 122

Engineering Science Course Requirement MMAE 200 or MMAE 320

Computer Science Requirements CS 115, 116

Humanities and Social Sciences Requirements (per General Education specifications)

Science Elective BIOL 105, BIOL 107, BIOL 114, BIOL 115, MS 201, or CHEM 126

Interprofessional Projects

Graduate Professional ECE Electives (total of 18 credit hours)

18 credit hours of Graduate Professional ECE Electives at the 500-level or higher must satisfy major and minor requirement rules and the course selection rules defined for three MSEE areas (Communications and Signal Processing, Computers and Microelectronics, and Power and Control) for MSEE.

Graduate ECE or Technical Electives (total of 6 credit hours)

- MSEE students with thesis option must use these 6 credit hours for thesis (ECE 591).
- MSEE students with non-thesis option must select with advisor approved 400-level (excluding ECE 494 and 497) or higher courses from engineering, computer science, mathematics, or science.

TOTAL CREDIT HOURS: 155-157

BSEE-MSEE Co-Terminal Degree Requirements

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