ENGINEERING (M.S.) ELECTRICAL ENGINEERING EMPHASIS

Mission

Provide students with a solid foundation in electrical engineering, knowledge of technical specialty areas, and an appreciation for collaborative problem solving to make significant contributions to the profession.

Program Objectives

1. Provide students with a solid foundation in electrical engineering (EE), EE practices; and major design skills
2. to maintain high employability, adaptability to changing technologies, and an ability to conceive new technologies and innovative solutions to EE challenges
3. Provide graduates with effective communication skills required for career advancement;
4. Endow students with a sense of professionalism, professional ethics and active participation in the affairs of the profession;
5. Enable students to work effectively in a team environment.

Degree Requirements

Thirty(30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor:

Option 1 Twenty-four (24) semester hours of coursework plus a six-hour thesis
Option 2 Twenty-seven (27) semester hours of coursework plus a three-hour project
Option 3 Thirty-six (36) semester hours of coursework

Option 1 Requires a formal written thesis, formal presentation and oral exam.
Option 2 Requires a written project report, formal presentation and oral exam.
Option 3 Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B average).

Core Courses

Each emphasis area has either three or four core courses (9 to12 semester hours). Electives are selected with approval of the student's graduate committee and/or graduate advisor

Code	Title	Hours
CPE 551	DIGITAL SIGNAL PROCESSING	3
CPE 555	CONTROL SYSTEMS	3
CPE 560	EMBEDDED DESIGN W/MICHROPROCES	3
CPE 635	ADVANCED CIRCUIT THEORY	3

Elective Courses

Code	Title	Hours
CPE 503	COMPUTATIONAL METHODS	3
CPE 520	ADVANCED ENGINEERING ANALYSIS	3
CPE 521	ADVD ENGINEERING ANALYSIS II	3
CPE 530	VLSI DESIGN	3
CPE 532	DIGITAL INTEGRATED CIRCUITS	3
CPE 544	ELECTROMAGNETIC FIELD ANALYSIS	3
CPE 557	ROBOTICS	3
CPE 693	ADVANCED TOPICS-IC DESIGN	3
CPE 697	INTERNSHIP	1-3
CPE 698	INDEPENDENT STUDY	1-4
CPE 699	THESIS	1-6
Total Hours		**27-37**