ENGINEERING (M.S.) COASTAL ENGINEERING EMPHASIS

Mission

To provide engineers with graduate education in the specialized field of coastal engineering, including knowledge, skills and abilities to address coastal engineering challenges arising from coastal natural disasters.

Program Objectives

1. Provide students an understanding of the fundamental coastal engineering knowledge and principles necessary to address engineering challenges in a coastal environment, especially those arising from coastal natural disasters.
2. Provide graduate course work and research programs in coastal engineering.
3. Enable students to achieve enhanced professional development and to appreciate the technical and societal challenges existing in the practice of coastal engineering.

Program 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

The students are required to select four courses among the list of seven core courses and one of the four must be CIV 520 ADVANCED ENGINEERING ANAYLS I. The other three core courses must be approved by the Department prior to selection. The remaining courses may be chosen from the list of electives or from the other core courses with approval of the student's advisor.

Code	Title	Hours
CIV 520	ADVANCED ENGINEERING ANAYLS I	3
CIV 538	COASTAL STRUCTURES	3
CIV 539	ADVANCED COASTAL ENGNRG DESIGN	3
CIV 631	LINEAR THEORY OF OCEAN WAVES	3
CIV 632	TIDES AND LONG WAVES	3
CIV 636	SPECTRAL WAVE ANALSIS	3
CIV 637	ADVD DESIGN FOR BRKWATER REHAB	3

Elective Courses

Code	Title	Hours
CIV 521	ADVD ENGINEERING ANALYSIS II	3
CIV 531	TRAFFIC ENGINEERING	3
CIV 542	ADVND DESIGN OF CONCRETE STRUC	3
CIV 550	ENGINEERING HYDROLOGY	3
CIV 562	HAZARDOUS WASTE ENGINEERING	3
CIV 564	SURFACE WATER	3
CIV 632	TIDES AND LONG WAVES	3
CIV 640	FINITE ELEMENT METHODS	3
CIV 650	SMALL WATERSHED HYDROLOGY	3
CIV 670	ROCK MECHANICS	3
CIV 680	UNSATURATED SOIL MECHANICS	3
CIV 681	EXCAVATION SUPPORT SYSMS & R S	3
CIV 682	COMPUTATIONAL GEOTECHNICS	3
CIV 683	SOIL STRUCTURE INTERACTION	3
CIV 684	ADVND SITE CHARACTER & INSTRUM	3
CIV 696	SEMINAR	1
CIV 697	INTERNSHIP	1-3
CIV 698	INDEPENDENT STUDY	1-4
CIV 699	THESIS RESEARCH	1-3