

ENGINEERING (PH.D.) COASTAL ENGINEERING EMPHASIS

Department: Civil and Environmental Engineering and Industrial Systems and Technology

Coastal Engineering: to prepare students with advanced knowledge and skills in coastal engineering, (including coastal natural disasters) and produce graduates with competencies in advanced original research, education, and professional practice in coastal engineering.

A minimum of 72 credit hours beyond B.S. or 36 credit hours beyond M.S. degree. Must complete 24 hours of dissertation research, the required core courses, and elective courses. The adviser or the advising committee may recommend additional courses based on the students' background and the proposed research area.

Core Courses

Code	Title	Hours
CIV 520	ADVANCED ENGINEERING ANALYSIS I	3
Select three of the following: ¹		9
CIV 538	COASTAL STRUCTURES	
CIV 539	ADVANCED COASTAL ENGINEERING DESIGN	
CIV 631	LINEAR THEORY OF OCEAN WAVES	
CIV 632	TIDES AND LONG WAVES	
CIV 636	SPECTRAL WAVE ANALYSIS	
CIV 637	ADVANCED DESIGN FOR BRK WATER REHAB	
Total Hours		12

¹ After consultation and approval of the student's adviser.

Elective Courses

Code	Title	Hours
CIV 521	ADVANCED ENGINEERING ANALYSIS II	3
CIV 531	TRAFFIC ENGINEERING	3
CIV 542	ADVANCED DESIGN OF CONCRETE STRUCTURES	3
CIV 550	ENGINEERING HYDROLOGY	3
CIV 562	HAZARDOUS WASTE ENGINEERING	3
CIV 564	SURFACE WATER	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 697	INTERNSHIP	1-3
CIV 698	INDEPENDENT STUDY	1-4
CIV 899	DISSERTATION RESEARCH	1-6