

Program in Coastal Engineering

Background

As the Nation's Coastal Engineer, the Corps of Engineers recognizes the necessity for maintaining highly qualified coastal engineers to meet present and future challenges in this critical mission area. To meet this need, a unique course of study has been developed, coupling the staffs and facilities of the U.S. Army Engineer Research and Development Center (ERDC) and Texas A&M University (TAMU).

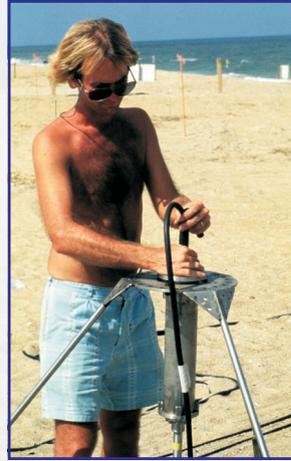
Although the program was developed for Corps professionals, the curriculum is equally applicable to other governmental agencies and the private sector. Consequently, all qualified individuals will be considered for admission. Students from previous sessions have had the following comments:

"The most intensive and beneficial program available to a Corps or practicing coastal engineer."

"The one year of course and research is tough to get anywhere else, and the future in coastal engineering is found in the CEEP."

"Excellent program for those who are serious about coastal engineering."

"It is an opportunity of a lifetime."



Description of the Program

The one-year Coastal Engineering Education Program (CEEP) is designed to provide students with the basic academic coursework and practical training essential for solving modern-day coastal engineering problems. Program graduates will have the fundamental knowledge and tools necessary to meet the coastal engineering challenges of today. The program is offered through the ERDC Graduate Institute jointly by TAMU and the ERDC Coastal and Hydraulics Laboratory (CHL). A Master of Engineering degree will be awarded by TAMU upon successful completion of the program.

Students will spend the fall and spring semesters at TAMU in College Station, TX, and the summer semester at ERDC in Vicksburg, MS. This will include a brief field visit to the CHL Field Research Facility (FRF) in Duck, NC, during the period between the spring and summer semesters.



Admission Requirements

Applicants must be accepted into the TAMU Ocean Engineering Program. To be qualified, the applicant must have: (1) a Bachelor of Science (B.S.) degree in Engineering from an accredited institution or approval of the TAMU Ocean Engineering Program if the B.S. degree is other than engineering, (2) a satisfactory scholastic record which gives evidence of the applicant's ability to perform successful graduate-level work, and (3) acceptable scores on the Graduate Record Examination (GRE). International students are required to obtain an acceptable score on the Test of English as a Foreign Language (TOEFL) exam. The GRE and TOEFL exams should be taken in the fall and application to TAMU must be made by March 2002.

In addition to the general admission requirements specified in the TAMU Graduate Catalog, all applicants are expected to have a sufficient background in mathematics including differential equations and numerical methods, basic engineering science, statics and dynamics, mechanics of materials, and at least one semester of fluid mechanics. Due to the time limitations and relatively rigid curriculum required by the one-year program, applicants with insufficient academic background will not be accepted.



Degree Requirements

The Master of Engineering degree requires a minimum of 30 credit hours of coursework. As shown in the schedule, the ERDC/TAMU Program will require 33 credit hours for successful completion. Approximately one-third of the required hours will be taken in fields outside the student's major field. Students will take 3 credit hours of 685 (Problems) and submit a written report on a topic that is deemed important in coastal or ocean engineering. Topics will be selected with the student's advisors, who will be selected during the first semester. Each student will have advisors from TAMU and ERDC.

ERDC Graduate Institute

The ERDC Graduate Institute is an association of universities and ERDC where students can earn academic credit and graduate degrees from member universities through coursework offered at ERDC. Current member universities include TAMU, Mississippi State University, and Louisiana State University. The Institute was established in 1986 to support graduate study and research in scientific and technological areas of interest to ERDC and other Corps of Engineers organizations.

TAMU Ocean Engineering Program

TAMU is a pioneer in offshore and coastal engineering education. Relatively few universities in this country offer an ocean engineering curriculum, and TAMU is recognized nationally and internationally as having one of the best programs. The Ocean Engineering Program offers both undergraduate and graduate degree programs. Nearly 450 undergraduate and 300 graduate students have graduated from the program since it was established in 1973. The program was selected by the U.S. Navy Civil Engineering Corps for graduate training of their officers in the area of ocean engineering. Several ERDC employees have also elected to receive their Ph.D. training at TAMU. Because of its expertise in offshore and coastal engineering, TAMU was chosen to be responsible for the ERDC Graduate Institute Coastal Engineering Education Programs. Previous Coastal Engineering Education Programs have been very successful, resulting in fifteen students earning Master of Engineering degrees.



Coastal and Hydraulics Laboratory

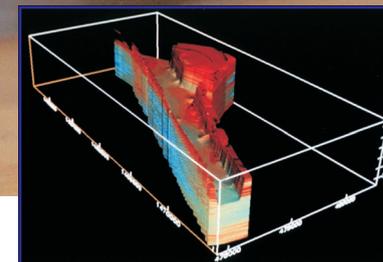
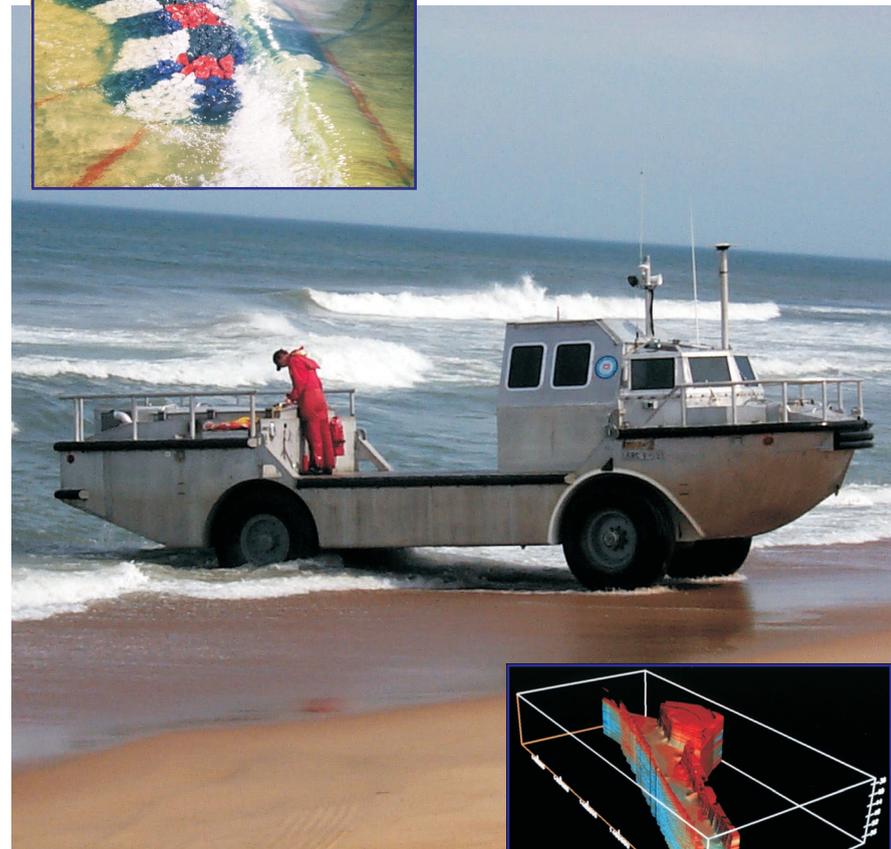
In 1996, the ERDC Coastal Engineering Research Center (established by Public Law) merged with the Hydraulics Laboratory to form the Coastal and Hydraulics Laboratory (CHL). CHL is the largest water resources laboratory in the world with approximately 200 engineers and scientists, one fourth holding doctorates. CHL has an unequalled combination of experimental and field research facilities and a staff with broad expertise to conduct studies of diverse and complex problems in the coastal zone. The capabilities of CHL are greatly broadened by facilities such as the High-Performance Computing Center and by the expertise of employees in the seven other technical ERDC laboratories.

One-Year Master's of Engineering Degree Program in Ocean Engineering			
Course Number	Course Title	Credits	Location
Fall Semester 2002			
MATH 601	Higher Mathematics	3	TAMU
OCEN 671	Ocean Wave Mechanics	3	TAMU
OCEN 674	Ports and Harbors	3	TAMU
OCEN 688	Marine Dredging	3	TAMU
OCEN 681	Seminar	1	TAMU
	Total	13	
Spring Semester 2003			
OCNG 608	Physical Oceanography	4	TAMU
OCEN 672	Coastal Engineering	3	TAMU
OCEN 678	Hydromechanics	3	TAMU
CVEN 679	Theory of Fluid Mechanics Models	3	TAMU
OCEN 681	Seminar	1	TAMU
OCEN 685	Directed Studies (Project Proposal)	1	TAMU
	Total	15	
Summer Session 2003 (Ten Weeks)			
OCEN 685	Directed Studies (Project)	2	ERDC
OCEN 685	Directed Studies (Coastal Sediments)	3	ERDC
	Total	5	
Program Total Credit Hours		33	

For More Information Contact:

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Coastal Engineering Education Program

**CEEP
2002-2003**