Corps of Engineers' Coastal Engineering

Certificate Program

U.S. Army Corps of Engineers, Engineer Research and Development Center • Coastal and Hydraulics Laboratory

Innovative Solutions for a Safer, Better World

The CECECP provides a means for USACE engineers and scientists to obtain certification in coastal engineering through accredited university programs and collaboration with Coastal and Hydraulics Laboratory (CHL) researchers. The program is intended for USACE employees that have quantitative background in scientific or engineering fields and are new to coastal engineering, or for coastal engineers to extend their knowledge and experience. The program may be expanded in the future to include qualified consultants.

BUILDING STRONG®

Opportunities for Advancement

Requirements of the CECECP are as follows:

- Complete four courses in coastal engineering, one each from the following categories:
  - Coastal Hydrodynamics
  - Coastal Processes
  - Coastal Structures
  - Elective

  Note: one class must be a context class, defined as one that provides a broad overview of coastal engineering or coastal processes.
- Courses are available online through the ERDC Graduate Institute from the following universities:
  - Louisiana State University
  - Mississippi State University
  - Texas A&M University
  - Old Dominion University
- Complete one CHL software training module
- Complete a project from the candidate's home District in conjunction with a CHL researcher
- Present the project to CHL and the CECECP Technical Panel in a seminar

Program initiation is scheduled for Spring 2014, but potential applicants are encouraged to apply at any time.

Interested USACE employees may apply through the CECECP website with a deadline of Apr 1st of each year for the Fall semester and Oct 15th for Spring semester. Candidates will provide a resume, proposed course selections, and identify the District project (or consultant project in later years) to be completed as part of the CECECP. Accepted candidates will be notified by Jun 15th (Fall semester) or Nov 1st (Spring semester) and must apply to the university and enroll into the Fall/Spring classes.

Please Review Program Course Schedule on Page 2

For more information, please contact Steve Wagner • Stephen.E.Wagner@usace.army.mil.

Costs for the CECECP consist of: course fees (approximately $1500-$1700 per course), university application fees ($50-$60 per university), travel and labor for the CECECP candidate to visit CHL for 1 week and work with a CHL researcher on the District project, labor to complete the software training module, and 2 weeks to cover the CHL researcher's time in assisting with the District project (approximately $10K over the 2-years of CECECP completion).

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Spring • Summer • Fall

Coastal Engineering Certificate Program Course Schedule

Information on schedule is subject to change

ODU - Old Dominion University			2014			2015			2016			2017			2018			2019		
Course No.	Course Name	Frequency offered	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall
CEE 582	Introduction to Coastal Engineering	Every Other Year				X						X						X		
CEE 782	Design of Coastal Structures	Every Other Year			X						X						X			
CEE 787	Dredging and Beach Engineering	Every Other Year						X						X						X
CEE 788	Coastal Hydrodynamics	Every Other Year	X						X						X					
MSU - Mississippi State University			2014			2015			2016			2017			2018			2019		
Course No.	Course Name	Frequency offered	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall
CE 4563/6563	Sedimentation Engineering	Every Other Year			X						X						X			
CE 8533	Hydromechanics	Every Other Year						X						X						X
CE 8543	Tidal Hydraulics	Every Other Year				X						X						X		
CE 8553	Rivers, Estuaries & Coasts	Every Other Year		X						X						X				
CE 8990	Coastal Processes	Every Third Year		X								X								
TAMU - Texas A&M University			2014			2015			2016			2017			2018			2019		
Course No.	Course Name	Frequency offered	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall
OCEN 672	Coastal Engineering	Every Year	X			X			X			X			X			X		
OCEN 671	Ocean Wave Mechanics	Every Year			X			X			X			X			X			X
OCEN 678	Fluid Mechanics for Ocean and Environmenal	Every Year			X						X			X						X
OCEN 675	Nonlinear Waves	Every Other Year						X						X						X
OCEN 688	Marine Dredging	Every Other Year	X						X						X					
OCEN 674	Ports and Harbors	Every Other Year						X						X						X
OCEN 682	Coastal Sediment Process	Every Other Year				X						X						X		
OCEN 683	Estuary Hydrodynamics	Every Other Year	X						X						X					
OCEN 689	Environmental Fluid Mechanics	Every Year	X			X			X			X			X			X		
CVEN 688	Computational Fluid Dynamics	Every Year			X			X			X			X			X			X
CVEN 679	Experimental Fluid Mechanics	Every Other Year			X						X						X			
LSU - Louisiana State University			2014			2015			2016			2017			2018			2019		
Course No.	Course Name	Frequency offered	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall
CE 4320	Coastal Engineering	Every Year			X			X			X			X			X			X
CE 7701-1	Coastal Hydrodynamics	Every Year	X			X			X			X			X			X		
CE 7701-2	Sediment Transport Mechanics	Every Year	X			X			X			X			X			X		

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