

# COASTAL RESILIENCE CERTIFICATE

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## Program Description

The Certificate in Coastal Resilience is designed to provide students with an in-depth introduction to the effects of the coastal environment on buildings and infrastructure. The certificate program will build on lessons learned, including examples of two different types of damages that occurred during Hurricane Harvey in 2017: wind damages experienced by Coastal Bend area communities and flood damages experienced by Houston area communities. The courses in the certificate program will address topics including structural resistance to wind loading, hydraulics and hydrology in the context of water retention, and remote sensing. The Capstone Projects course will include case studies aimed at encouraging students to explore innovative solutions to the challenges encountered by coastal communities under extreme weather conditions.

Students in the TAMU-CC Civil Engineering Bachelor of Science (BS-CEEN) program will be able to complete the Coastal Resilience Certificate while completing their BS degrees by taking the required Capstone Project course ENGR 4370 and the three specific courses listed below as the three technical elective courses (9 hours) required in the BS-CEEN program. All students admitted into the Coastal Resilience Certificate Program must meet the undergraduate admission requirements for TAMU-CC and must satisfy all prerequisites for courses in the certificate program. Transfer credit for some required courses may be considered.

Students are expected to meet all other academic standards. Students must apply for the certificate and complete a Certificate Plan approved by the Director of the School of Engineering and Computing Sciences or a designee.

## For Additional Information

**Website:** <http://engineering.tamucc.edu>

**Mailing Address:**

Department of Engineering  
College of Engineering  
Texas A&M University - Corpus Christi  
6300 Ocean Drive, Unit 5797  
Corpus Christi, TX 78412-5797

## Program Requirements

Code	Title	Hours
<b>Required Courses</b>		
CEEN 4302	Remote Sensing	3
CEEN 4312	Hydraulics and Hydrology	3
CEEN 4322	Geotechnical Engineering II – Coastal Environment	3
ENGR 4370	Capstone Projects	3
<b>Total Hours</b>		<b>12</b>

Note: Students must earn at least a 2.5 overall grade point average in certificate courses.