



UNIVERSITY OF SOUTH ALABAMA

Department of Civil, Coastal, & Environmental Engineering Graduate Certificate in Water/Wastewater Engineering

The Department of Civil, Coastal, & Environmental Engineering offers a Graduate Certificate in Water/Wastewater Engineering. This is an important sub-discipline of Civil/Environmental engineering that integrates physical, chemical, and biological processes into engineered designs of drinking water and wastewater management applications. Safe drinking water and appropriate wastewater management (both municipal and industrial) are critical to protecting public health, ecological health, and human/urban development. This Graduate Certificate requires successful completion (grade B or higher) of four graduate-level courses to provide additional water/wastewater engineering expertise beyond what is provided in most BSCE programs.

Required courses:

A minimum of 12 credit hours, or four 3-credit courses, is required. These courses are required:

- **CE 571 Biological Wastewater Treatment** (required), and
- **CE 572 Physical/Chemical Water Treatment** (required), and
- **two** courses chosen from the following list:
 - **CE 514/CH 514 Water Chemistry**, or
 - **CE 574 Industrial Wastewater Treatment**, or
 - **CE 590 Special Topics: Natural Treatment Systems**, or
 - **CE 590 Special Topics: Decentralized Water/Wastewater Systems**, or
 - other graduate courses related to Water/Wastewater Engineering approved by the student's graduate committee.

Students may apply these courses towards a full graduate degree (e.g., MSCE or PhD).

Background:

This Water/Wastewater Engineering Certificate Program responds to the local engineering community's need for additional technical expertise (beyond what is available in most BSCE curricula) in the areas of water and wastewater treatment design.