

Water Environmental Modeling — Graduate Certificate

The overall objective of the program is to provide interdisciplinary graduate-level education for those seeking advanced professional knowledge and skills in water environmental modeling, who are not enrolled in a graduate degree program.

This Graduate Certificate Program is built on top of the successful Engineering Online Program at Samuel Ginn College of Engineering, which was ranked highly in U.S. News and World Reports for Best Online Engineering Programs. It is an on-campus equivalent education program that combines traditional instruction with modern delivery methods to offer graduate studies beyond Auburn's campus.

The program is structured to advance the working engineer's knowledge and skills in the rapidly changing field of water environmental modeling. It deals with the flow, water quality, and ecological modeling studies and consists of a vast field that focuses on water quality, its applications in human activities and its interactions with the water environment such as rivers, lakes, reservoirs, estuaries, groundwater, and watersheds. Typical problems include:

- The transport and diffusion of pollutants in the runoff and aquatic systems.
- The modeling of sediment, heat, and contaminant transport/chemical/biological processes in rivers, lakes, reservoirs, and estuaries, and in the groundwater system.
- The interaction between the hydrologic cycle and nutrient and energy cycles in terrestrial ecosystems.

At a Glance

- The program requires students to take four related graduate courses (12 credit hours).
- Students attending courses online have the same professors as their on-campus peers.
- Students can access lectures online through a live feed or at their convenience via streaming video.
- The online schedule allows for flexibility to maintain a career while completing the program.

Faculty

Water environmental modeling courses are taught by Auburn's outstanding civil and environmental engineering faculty.