

# Water Resources Engineering — Graduate Certificate

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The overall objective of the program is to provide interdisciplinary graduate-level education for those seeking advanced professional knowledge and skills in water resources engineering, 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 Resources Engineering, which deals with hydraulic and hydrologic studies and consists of a vast field that focuses on water resources, its applications in human activities and its interactions with the environment. Rooted in fluid mechanics, water resources (hydraulics and hydrology) engineers focus on problems that include:

- Conveyance of water in the urban environment, with applications on water supply and wastewater and stormwater collection and management.
- The motion of water in the overland flows, rivers, aquifers, coastal environments, etc.
- Sediment, heat, and contaminant transport processes in rivers, lakes, reservoirs, and estuaries, and in the groundwater system.
- Hydraulic structures such as reservoirs, dams, canals, etc.
- 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 resources engineering courses are taught by Auburn's outstanding civil and environmental engineering faculty.