WATER RESOURCES ENGINEERING
CERTIFICATE

Program Overview: *This graduate-level certificate will go beyond simply reviewing code provisions, and look at fundamental modeling approaches in water resources. It will allow working professionals to deepen their understanding of the water resources discipline and associated relevant modern modeling techniques*

CE 6420 — Hydrologic Analysis and Design

Provides an introduction to water resources infrastructure designs using hydrologic information, such as frequency analysis, peak discharge, hydrographic, and design-storm computer methods. Students learn to apply statistical methods and hydrologic models (e.g., HEC-HMS) to quantify hydrologic information for design studies of a wide variety of problems in water resources engineering.

CE 6430 — Water Resources Engineering

Extension of the concepts of fluid mechanics to applications in water supply, water resource assessment, water transmission, water distribution networks, pump and pipe selection, pipe networks, and analysis of open channel appurtenances.

CE 6470 — Stormwater Management

Evaluation of peak discharges for urban and rural basins, design of highway drainage structures such as inlets and culverts; stormwater and receiving water quality; best management practices, detention and retention ponds, and erosion and sediment control.

CE 8460 — Flow in Open Channels

Free surface flow problems; applications of digital computer; concepts of boundary layer theory; uniform and varied flow; hydraulic jump; design criteria for prismatic channels and transitions; applications of unsteady flow.

Scan for information

Contact Information:
Certificate Program Coordinator: Dr. Abdul Khan
864.656.3327 or Email adbkhan@clemson.edu