GRADUATE CERTIFICATE IN HYDRAULIC DESIGN

This certificate will give students an introduction to applied hydraulic design concepts and practices with this three-course series that instills the key core competencies and skills needed to practice as a hydraulic engineer. Students learn how, and why, to apply aspects of hydraulic structures. This certificate program prepares engineers or other professionals in the water, energy, or environmental resources to lead hydraulic design projects from concept creation to implementation. Whenever water must be managed, moved or stored, some form of hydraulic design is required to facilitate these processes.

Learning Outcomes

1. Relating the definition, application, and essential importance of hydraulic engineering to the completion of many civil & environmental engineering projects

2. Extending hydraulic-engineering knowledge substantially beyond the baccalaureate level

3. Understanding the roles of various hydraulic structures and systems

4. Understanding the main hydraulics processes associated with the performance of hydraulic structures and systems

5. Choosing pertinent instrumentation and methods for measuring and monitoring the hydraulics processes associated with hydraulic structures and systems

Students will gain an advanced-level understanding of key concepts and tool sets required in hydraulic engineering as applied in the development of many engineering projects.