

Water Resources Engineering & Management

COURSE OVERVIEW

This course covers engineering principles and management strategies for sustainable water resource development. It includes surface and groundwater hydrology, water infrastructure design, and integrated water management. The curriculum integrates technical, environmental, and policy aspects to prepare professionals for climate-related water challenges. Participants will master advanced water resource analysis, design, and sustainable management to build resilient water systems for communities and ecosystems.

WHO SHOULD ATTEND?

This course is ideal for water resources engineers, civil engineers, environmental engineers, hydrologists, and public works professionals involved in water system planning, design, and management who are responsible for ensuring sustainable water supply, flood protection, and environmental conservation.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Analyze watershed hydrology and surface-groundwater interactions.
- Design water storage, conveyance, and distribution systems.
- Develop flood risk management and drought resilience strategies.
- Apply integrated water resources management principles.
- Utilize hydraulic modelling software for system analysis.
- Evaluate water quality impacts and environmental flow requirements.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Watershed hydrology and hydrological process analysis.
- Surface and groundwater resource assessment methods.
- Water infrastructure planning and design principles.
- Floodplain management and hydraulic structure design.
- Water allocation and conflict resolution strategies.
- Climate change adaptation in water resources planning.
- Sustainable water governance and policy frameworks.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded