Canadian Society for Civil Engineering | Société canadienne de génie civil

HEC-RAS V.5 Modelling
Including Advanced Applications

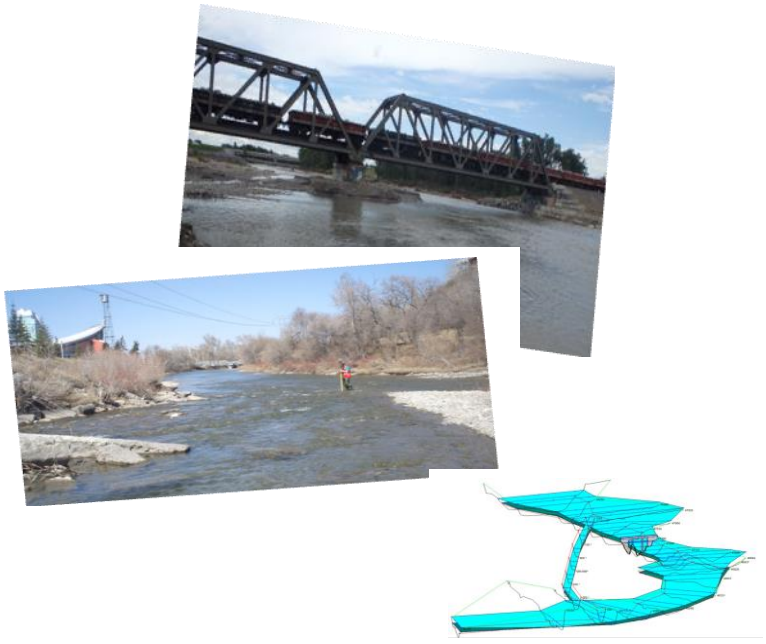
The Content

The course covers the basic theoretical background of one-dimensional hydraulic modelling, model calibration, bridges and weirs, flood flow simulation and inundation mapping, flow separation, simulation of unsteady flow and an introduction to two-dimensional modelling. The participants will have the opportunity to practice using HEC-RAS on their own computers during the course based on exercises that cover each topic. An emphasis will be given on conveying general modelling principles including field data collection, quality control, purpose of hydraulic modelling and discussing the limitations of one- and two-dimensional hydraulic modelling in general and HEC-RAS in particular.

The course is suitable for practitioners that have a basic understanding of river hydraulics and already have basic knowledge of using HEC-RAS.

The Instructor

Gaven Tang, M.A.Sc., P.Eng., is a Water Resources Engineer with Golder Associates in Calgary. He completed a Masters of Civil Engineering (Hydrotechnical Speciality) in 2012 from UBC. He has been involved in a variety of Water Resources Engineering and River Engineering related projects since joining Golder in 2012, including: 1D, 2D, and 3D hydraulic modelling; inundation mapping and flood hazard studies; flood mitigation design; and dam breach studies. He was part of the team that received a Canadian Consulting Engineering award for work on flood mitigation innovation in Calgary.



Course Outline

Introduction
Theoretical Background
Model Calibration
Bridges and Weirs
Flood Simulation and Inundation Mapping
Flow Separation
Unsteady Flow Simulations
Introduction to Two-Dimensional Modelling
Discussion and Summary