

# FLOODPLAIN DELINEATION WITH HEC-RAS AND GIS

SEPTEMBER 6-8, 2011

TEXAS A&M UNIVERSITY  
COLLEGE STATION, TEXAS

## Course Information

With increasing property losses due to flood damage, floodplain management and flood hazard mapping are becoming more critical for hazard managers. One tool used to assist hazard managers is the U.S. Army Corps of Engineers Hydrologic Engineering Center's HEC-RAS software program. This program is a widely used tool for various open-channel hydraulics analysis and design tasks. In addition, the Hydrologic Engineering Center's HEC-GeoRAS program is a very popular add-on within the ArcGIS platform. This program is used to develop and map the results of HEC-RAS analyses.

This course will focus on the fundamental concepts of open-channel hydraulics and include hands-on applications of the HEC-RAS and HEC-GeoRAS software packages. Instructors will discuss steady and unsteady flow simulations using HEC-RAS and the delineation and mapping of floodplains using the HEC-GeoRAS tool.

## PARTICIPANTS RECEIVE:

- 20 Professional Development Hours
- 2 Continuing Education Units

## Registration Information

A minimum of 10 RSVPs must be received for this workshop to be scheduled. Individuals interested in workshop will be placed on a first come first served waiting list. If 8 or more individuals accumulate on the waiting list, workshop will be scheduled for September 6-8, 2011. Contact: Courtney Smith ([courtneysmith@ag.tamu.edu](mailto:courtneysmith@ag.tamu.edu)) for more information.

\*Early registration fee (received by August 19, 2011): **\$475**; Registration fee (received after August 19, 2011): **\$525**.

## Venue

The course will be **Tuesday, September 6, 1 p.m. to Thursday, September 8, 5 p.m.** at the **Centeq Building** on the Texas A&M University Campus. Please note that all attendees are responsible for their own hotel reservations and travel. Information regarding local accommodations can be found at <http://watereducation.tamu.edu>.

## Instructors

**Francisco Olivera**, Ph.D., P.E., is an Associate Professor of Civil Engineering at Texas A&M University. Dr. Olivera has more than 25 years of experience in water resources engineering and more than 12 years on the use of GIS for hydrologic and hydraulic modeling. Dr. Olivera's development experience includes: *CRWR-PrePro*, *Arc Hydro* (co-developer) and *ArcGIS-SWAT*.

**Matthew Zeve**, P.E. CFM, is a Senior Project Manager in the Houston office of TCB/AECOM., a multi-disciplinary consulting firm. He has more than seven years of experience in water resources analysis and planning and four years experience in teaching hydrologic and hydraulic software and technical material to public and private entities.

- Learn the latest techniques of floodplain mapping
- Discuss the differences between steady and unsteady flow simulations
- Become familiar with HEC-GeoRAS mapping procedures

## More about this Course

Participants will study the fundamentals of hydraulics (basic equations; uniform flow; specific energy and critical flow; weirs, gates and sluices; and gradually variant flow); steady/unsteady flow analysis with HEC-RAS; floodplain delineation with HEC-GeoRAS.

Civil engineers and floodplain managers seeking to learn about floodplain analysis using the HEC-RAS and HEC-GeoRAS software programs will benefit from this