

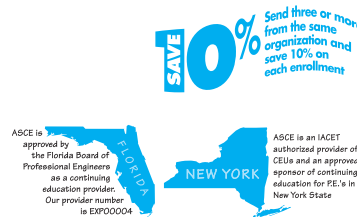
Locations and Accommodations:

*rate subject to cut-off dates and apply only the day before and the days of the seminar, with check-out on the last day of the seminar.

BOSTON, MA
OCTOBER 17-19, 2007
Four Points by Sheraton Boston
Logan Airport
407 Squire Road
Revere, MA 02151
781-284-7200
ASCE Hotel Rate: \$159 Single/Double*

SAN ANTONIO, TX
DECEMBER 12-14, 2007
Radisson Hill Country Resort and Spa
980 Westover Hills Blvd.
San Antonio, TX 78251
210-509-9800
ASCE Hotel Rate: \$119 Single/Double*

LAS VEGAS, NV
MARCH 19-21, 2008
Stratosphere Hotel & Casino
2000 Las Vegas Blvd South
Las Vegas, NV 89104
800-998-6937
ASCE Hotel Rate:
Wed-Thur: \$70 Single/Double*
Fri: \$80 Single/Double*



SAVE 10% Send three or more from the same organization and save 10% on each enrollment.

ASCE offers more than 500 online courses on a wide variety of technical, management, and regulatory topics. These courses are available through ASCE's distance learning partnerships. For a complete listing of these courses or to register, please go to:

www.asce.org/conted/distancelearning/

ASCE members receive discounts of 15% or more on most online courses.

HELPFUL INFORMATION:

SEMINARS:

Confirmation Letter and Time/Location: All seminar registrations will be confirmed in writing within two weeks of receiving your registration. Seminar time, location and hotel information will be included with your confirmation letter. Seminar fees include all course materials. Fees do not include hotel accommodations or meals. Hotel reservations should be made early as discounted rates are subject to cut-off dates.

Instructor Substitution: ASCE reserves the right to substitute an equally-qualified instructor for any seminar should unforeseen circumstances arise.

Cancellations: Cancellations must be made in writing via email or fax and must include registrant's name, confirmation # and name/date of the seminar. If you cancel 7 business days or less prior to the seminar start date, no refund/credit/transfer will be issued. You may transfer your registration to another registrant with no penalty up until the day of the seminar.* No credits/refunds will be issued for no shows. If ASCE must cancel a seminar due to insufficient enrollment, your registration fee will be refunded in full. ASCE is not responsible for non-refundable expenses such as airfare, hotels, transfer fees, or any other expenses associated with a cancellation.

*Price differential will be charged if transferring to a higher priced seminar or a non-member is replacing a member. Transfer may only be used one-time, no multiple transfers allowed.

CEUs/Certificates: One (1.0) CEU equals ten contact hours of instruction. A CEU certificate will be issued to each person who successfully completes a seminar and a permanent record will remain on file with ASCE. One (1.0) Continuing Education Unit (CEU) = Ten (10) Professional Development Hours. For details on your state's requirements, please go to:

http://www.ncees.org/licensure/licensing_boards/

Send a Team and Save: Register three or more from one organization for the same seminar and save 10% on each seminar registration. Registrations must be made at the same time to receive this discount.

On-Site Registration: Registration is available on-site at the seminar; however, we cannot guarantee that course materials will be available that day. Course notes and other materials will be mailed to you approximately two weeks after the seminar. Please be sure to contact ASCE no later than the day before the

seminar to confirm that the seminar will be held as planned.

Dress: Casual business attire is appropriate for all seminars.

Discounted Airfares: Use United Airlines or American Airlines and save money on airfares when traveling to ASCE Seminars. Call United Airlines Meeting Reservations Center at 1-800-521-4041, 7 days a week from 7:00 AM to 12:00 midnight Eastern Time and refer to ID number 563PM. Call American Airlines at 1-800-433-1790 and refer to ID number 18413. If you wish to use a travel agency, you must tell your agent to book your reservation under the above ID numbers to receive your discount.

Rental Cars: Special rates are available with Enterprise Rent-A-Car. Visit www.enterprise.com or call 1-800-736-8222 to make a reservation. Please use Code 16VCS73 and Password ASC to obtain your discounted rates.

MEMBERSHIP: Go to www.asce.org to join ASCE and save on future continuing education opportunities. Enter 08CEFCAT in the promotion code section of the membership application.

DISTANCE LEARNING COURSES:

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Fulfillment/Shipping: Orders are processed within 24 hours of receipt. All products are sent via UPS Ground unless otherwise requested.

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ASCE

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Locations: Please check one

- Boston, MA / October 17-19, 2007
 San Antonio, TX / December 12-14, 2007
 Las Vegas, NV / March 19-21, 2008

Fees: Please check one

A copy of your check or PO is required when faxing your registration

- \$1,235 Members
 \$1,445 Non-Members

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Please route to a colleague who will benefit by attending.

How to reach us:

Mail: ASCE Continuing Education
P.O. Box 79536
Baltimore, MD 21279-0536

Phone: 1-800-548-2723
703-295-6300 (international)

Fax: 703-295-6144

Email: Semianrs@asce.org

Please do not remove mailing/label/
Mail-FAX entire panel back with registration info

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ADVANCED COURSE

Dam Breach Analysis Using the Hydrologic Engineering Center's River Analysis System HEC-RAS

Participants should have sound experience in HEC-RAS steady flow computer modeling and some experience in HEC-RAS unsteady flow computer modeling.

Boston, MA / October 17-19, 2007

San Antonio, TX / December 12-14, 2007

Las Vegas, NV / March 19-21, 2008

"Excellent seminar to understand dam breach analysis and to take first step towards proficiency."

-Craig R. Findlay, Findlay Engineering Inc., Yarmouth, ME

"The seminar was very helpful. It helped me expand knowledge of unsteady flow and the common errors associated with crashing a model."

-Charles Thomas, Hydro Engineering Solutions, Auburn, AL

"Great seminar. The instructor was very informative and the class was very well organized."

-Michael Burns, Fant Reichert & Fogleman Inc., Greenville, SC

"A fast paced and effective workshop. I learned a lot about trouble shooting a HEC-RAS model."

-Jay Greska, Parsons Brinckerhoff Inc., Boston, MA

This is an ASCE Continuing Education Course, NOT JUNK MAIL. If you don't need CEU's pass this on to someone who does.



2.4 CEUs

Dam Breach Analysis Using the Hydrologic Engineering Center's River Analysis System HEC-RAS

Purpose and Background

This intensive, workshop-oriented, three-day seminar will prepare the engineer and water resource professional to use the HEC-RAS computer program for running dam breach simulations. Led by experts from WEST Consultants with practical experience in dam breach modeling, participants will learn how to approach and conduct a dam breach problem, estimate breaching parameters, construct an HEC-RAS unsteady flow model of the dam breach, and eliminate errors and instabilities in the model run.

The HEC-RAS modeling system was developed as part of the Hydrologic Engineering Center's "Next Generation" software and replaces several existing Corps of Engineers programs, including the HEC-2 water surface profile program. HEC-RAS incorporates various aspects of hydraulic modeling, including water surface profile computations and bridge hydraulics.

Version 3.1.3 of HEC-RAS includes advances in open channel hydraulic analysis such as:

- Dam and Levee Breach Analysis including multiple dam and/or levee breaching
- Availability of all widely used methods for bridge and culvert hydraulic analysis, which can be used in conjunction with dam breaching
- Ability to perform steady and unsteady mixed flow regime computations
- Many other capabilities developed from years of experience with HEC-2 and other major hydraulic analysis computer programs

HEC-RAS is user friendly, computationally efficient, and runs within, and fully supports, the Microsoft Windows environment. It uses the latest graphical user interface (GUI) technology for data entry, graphics, and display of program results. Complete context-sensitive help screens are available for every program feature and option. Software includes the following functions: file management, data entry and editing, hydraulic analyses, tabulation and graphical displays of input and output data, reporting facilities, and on-line help.

HEC-RAS is one of the most extensively-tested civil engineering computer programs ever developed. In addition to extensive in-house testing at the Hydrologic Engineering Center and at other Corps of Engineers' offices, the program has been through two full "beta" releases, during which the program was tested by thousands of engineers in the private and public sectors.

Seminar Features

Workshop participants receive the following publications and software:

- HEC-RAS software (latest version)
- HEC-RAS Hydraulic Reference Manual (on CD)
- HEC-RAS User's Manual (on CD)
- HEC-RAS Course Notes
- HEC-RAS Applications Manual (on CD)

Seminar Benefits (Learning Outcomes)

- Learn how to use the U.S. Army Corps of Engineers' HEC-RAS (River Analysis System) computer program to conduct dam breach analyses
- Gain hands-on HEC-RAS experience by participating in practical computer workshops

- Get an overview of hydraulic principles for rivers, waterway bridges, and culverts and how they work within a dam breach model
- Understand breaching parameters and how to choose them
- Obtain valuable insights in methods for minimizing computation errors and instabilities commonly associated with unsteady hydraulic models

Assessment of Learning Outcomes

Students' achievement of the learning outcomes will be assessed through 5 computer workshops. Each workshop will address issues discussed in the lectures and will test the students' understanding of the HEC-RAS software and specifically how to use it to construct, diagnose, and repair (if necessary) a dam breach model.

Who Should Attend?

Consulting engineers, water resource planners, engineers employed by local, state, or federal government agencies who are currently, or at some point plan to execute and/or review dam breach hydraulic studies. Participants should have sound experience in HEC-RAS steady flow computer modeling and some experience in HEC-RAS unsteady flow computer modeling. They should also be able to follow simple computer instructions.

Seminar Instructors

The seminar will be taught by one of the following qualified instructors:

CHRISTOPHER R. GOODELL, P.E., D.WRE, M.ASCE is a senior hydraulic engineer with WEST Consultants with over 10 years of experience in computational hydraulics, river hydraulics and hydraulic design. He spent two years at the Hydrologic Engineering Center (HEC) actively working on the development of HEC-RAS. In addition, Mr. Goodell is a contributing author to the HEC-RAS manuals and has applied HEC-RAS to a wide range of complex problems, including dam breaks, bridge and culvert hydraulics, spillway and outlet works design, stable channel design, and floodplain mapping. He also has experience in moveable bed hydraulics and has contributed to the incorporation of sediment transport and sediment impact modeling into HEC-RAS. Mr. Goodell earned his B.S. degree in civil engineering at Oregon State University and his M.Eng. in Hydraulic Engineering from the International Institute for Hydraulic Engineering (IHE) in Delft, The Netherlands. Mr. Goodell has taught HEC-RAS courses and provided technical support for HEC-RAS since 2000.

MARTIN J. TEAL, P.E., P.H., D.WRE, M.ASCE has worked with hydraulic models for more than 15 years and is currently a Vice President with WEST Consultants. His experience includes working as a hydraulic engineer for the U.S. Army Corps of Engineers and as a civil engineer for a large multinational firm in Chile. As a private consultant with WEST, he has dealt with complex hydraulic, hydrologic, and sedimentation problems. He has used computational models, such as HEC-RAS, as a principal tool to deal with these problems for clients in both the public and private sectors throughout the United States and internationally. Mr. Teal earned his BS in Civil Engineering from the University of California, Berkeley, and his MS in Civil and Environmental Engineering (Hydraulics) from the University of Iowa. He has taught HEC-RAS courses since 1997 throughout the U.S. and Latin America.

RAYMOND WALTON, Ph.D., P.E., D.WRE, M.ASCE has nearly 30 years of experience directing water resources projects for a variety of federal, state, local government and private clients. He is a nationally-recognized expert in water resources and computer modeling, including surface water, groundwater and water quality systems. He is currently a Vice President with WEST Consultants. Dr. Walton started with the Rivers Division of Hydraulic Research Station in the U.K., developing and applying hydraulic flood routing models. He taught hydraulics, hydrology, water resources, and mechanics at N.C. State University. He then worked for more than 15 years for two large firms on the east coast and in Washington state, where he managed numerous water resources engineering and modeling studies. He has applied mod-

els to numerous rivers, estuaries and coastal areas to simulate flooding, circulation, and water quality, and he has applied HEC-RAS to more than 100 river systems throughout the United States. He received his B.Sc. in Mathematics from University College, London, his M.Sc. in Engineering Hydrology from the University of Newcastle-Upon-Tyne, and his Ph.D. in Hydraulics from the University of Florida.

NOTE: In the event that one of the listed instructors is unavailable to teach, a qualified instructor from WEST Consultants will be appointed to replace him. Questions? Please call ASCE Continuing Education at 1-800-548-2723.

SUMMARY OUTLINE

TIME: 8:00am - 5:00pm

DAY ONE:

- Intro to Dam Breach Modeling
- HEC-RAS Review
- Computer Workshop on Unsteady Flow Modeling
- HEC-RAS vs. HEC-HMS Dam Breach Modeling
- Setting up an HEC-RAS Dam Breach Model
- Computer Workshop on Adding an Inline Weir and Breach

DAY TWO:

- Diagnosing Problems with a Dam Breach Model
- Computer Workshop on Diagnosing a Dam Breach Model
- Fixing an HEC-RAS Dam Breach Model
- Computer Workshop on Fixing an HEC-RAS Dam Breach Model Breach Parameters

DAY THREE:

- Calibration of Dam Breach Models
- Computer Workshop on Breach Parameters
- Case Studies/Student Projects



In-House Presentations

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- Presented at your organization
- Scheduled at your convenience
- Tailored to the needs of your staff

An on-site program can reduce the per person cost by more than 25% and your total training cost by 50%.

Call ASCE Continuing Education at: **1-800-548-2723**