

Advance your academic and professional development with these 5-day field intensive courses! Or take all 3 workshops as a 3 credit graduate level engineering class.

ENGINEERING FOR ECOSYSTEM RESTORATION SUMMER WORKSHOP SERIES

June 2 - 6, 2008

River Processes- Fluvial Geomorphology and Channel Processes

June 9 - 13, 2008

Stream Ecology and Restoration – Function Based Hydraulic Structure, Biological Assessment and Bioengineering Design

June 16 - 20, 2008

Great Lakes Ecology and Modeling Primer

Academic and PE Education Credits

Receive 36 contact instructional hrs (3.6 CEUs) towards continuing education requirements for Professional Engineers' or Certified Professionals' in Soil and Erosion Control registration renewal for each workshop attended. Or take all 3 workshops for 3 academic credits. The University at Buffalo School of Engineering and Applied Sciences is a recognized accredited educational organization for PE Continuing Education by the New York State Department of Education. See www.eng.buffalo.edu/pece for additional information.

Who Should Participate

Civil and Environmental Engineers, Environmental Scientists, Biologists, Ecologists, Environmental Regulators, Land Use Planners, Consultants, Students and Developers.

For Workshop Details and Agendas

Visit the Great Lakes Program Website
<http://www.eng.buffalo.edu/glp/events/summer2008.htm>

Workshop 1: June 2 – 6, 2008

River Processes- Fluvial Geomorphology and Channel Processes

Instructor: **Dr. Sean Bennett**, *Fluvial Geomorphologist* at University at Buffalo and **Dr. Andrew Simon**, *Geologist with the Channel and Watershed Processes Research group* at the USDA-ARS National Sedimentation Laboratory in Oxford, Mississippi.

- Overview of physical parameters of riverine ecosystems; fluvial geomorphology, hydraulics, sediment transport and vegetation.
- Apply fluvial geomorphic methods to natural restoration design.
- Field and analytical techniques for streambank stability and erosion.
- Rapid assessments of stream function and state.



McKinstry Creek during construction July 2005

Workshop 2: June 9- 13, 2008

Stream Ecology and Restoration – Function Based Hydraulic Structure, Biological Assessment and Bioengineering Design

Instructors: **Dave Derrick**, *Research Hydraulic Engineer* with USACE ERDC, **Paul Fuhrmann**, *Habitat Restoration Specialist* with Ecology and Environment Inc. and **Dr. Chris Pennuto**, *Macroinvertebrate Ecologist* at Buffalo State College.

- Stream restoration design based on form and function of stream ecosystems.
- Overview of biological parameters of riverine ecosystems.
- Bioengineering techniques and riparian management including the use of native species and the control and impact of invasive species.
- Three days of hands on case studies of local western NY stream and riparian restoration projects.
- Field biological assessments, characterizations and statistical analysis.

Workshop 3: June 16 - 20, 2008

Great Lakes Ecology and Modeling Primer

Instructors: Helen Domske, *Sea Grant Senior Extension Specialist*, **Dr. Randal Snyder**, *Fishery Biologist* at Buffalo State College and **Dr. Joseph Atkinson**, *Environmental Engineer* at University at Buffalo

- Great Lakes ecological networks.
- Field sampling practicum on Lake Erie.
- Introduction and overview of model development for Great Lakes management applications.



Restored McKinstry Creek during first major event September 2005

REGISTRATION FORM

Name and title of attendee(s): _____

Company: _____

Address: _____

Phone: _____ email: _____

Registration Fee Options in US Dollars only:

Course Registration

- \$750 for one workshop
- \$1000 for two workshops (or 2 people)
- \$1500 for three workshops (or 3 people)

For students matriculated in a degree-granting program and who wish to obtain academic credit, graduate tuition will be charged (1, 2 or 3 credits) instead of the above fees – contact Michele Sacco (information below) to register.

Registration includes coffee/tea/soda breaks, lunch (on classroom days), transportation to field sites and presentation materials.

Payment Options: Check Enclosed

Total Amount: _____

Make checks payable to UB Foundation, Inc. and send payment and registration to

Marge Hewlett, School of Engineering and Applied Sciences
416 Bonner Hall, Amherst, NY 14260 [mhewlett@eng.buffalo.edu]
(716) 645-2768 x 1106 Fax: (716) 645-2495

Credit card payment is also available – please contact Michele Sacco for further information [msacco@eng.buffalo.edu]; (716) 645-2768 x 1132]

www.eng.buffalo.edu/pece

Location 414 Bonner is located on the North Campus of the University at Buffalo, in Amherst, New York.

Course Times 8:15 Registration; Class 8:30-4:30
A “bagel” breakfast all mornings and lunch on classroom days.

Bring Laptop with CD drive for lectures, wear field clothes, bring hip boots or waders (or old shorts and sneakers), camera, rain gear, bug spray, sunscreen, etc. all days and a bag lunch and water for field trips.

Directions and Parking Upon receipt of registration, participants will be sent parking permits and a detailed map.

Visitor Info/Accommodations Everything you need to know about visiting UB (hotels, directions, etc.) can be found at www.buffalo.edu. Just click on “Visiting UB.”

UB School of Engineering and Applied Sciences
716-645-2768 x1106 FAX: 716-645-2495

Marge Hewlett, EngiNet™
416 Bonner Hall
Amherst, New York 14260

UB University at Buffalo
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UB University at Buffalo
The State University of New York

PRESENTS:

ENGINEERING FOR ECOSYSTEM RESTORATION SUMMER WORKSHOP SERIES



Sampling cruise on Lake Ontario.

A series of three *field intensive*, Academic and Professional Development Courses *each* with 36 Continuing Education contact hours towards P.E. and other professional requirements, or 1 graduate level academic credit per workshop.

Sponsored By: School of Engineering and Applied Sciences
414 Bonner Hall
UB North Campus, Amherst, NY
and
New York Great Lakes Research Consortium
Syracuse, New York

Workshop 1: June 2 - 6, 2008
Workshop 2: June 9 - 13, 2008
Workshop 3: June 16 - 20, 2008

Schedule is subject to change; all offerings depend on sufficient enrollment.

Great Lakes Program Website -
<http://www.eng.buffalo.edu/glp/events/summer2008.htm>

Contact Dr. Joseph Atkinson for further details:
(716) 645-2088, atkinson@eng.buffalo.edu