



## Region I Conference Bid for 2007

The University of Colorado At Boulder Student Section is looking to bid at the 2006 conference for the Regional Conference of 2007 to be held at our university. However, we know that we cannot do this without the help of the incredible professional women in the Rocky Mountain Section. Therefore, we are looking to find women whom would be willing to put forth the time and effort in preparing the bid/conference with us, in order to present it in the spring of 2006. For this conference, we are hoping to have equal opportunities for both the professional and student members, so we would like the input of everyone. If you are interested in participating at any level, please contact Jenny Vallero, CU Boulder Secretary & Public Relations Officer, and Region I RSNE at [valleroj@colorado.edu](mailto:valleroj@colorado.edu) or 303.875.9217. Thank you for your time and efforts in hopefully making CU the next place to be!

*Submitted by Jenny Vallero*

## SWE Student Interest Groups (SIGs) Ready to Rumble

The Student Activities Committee (SAC), Membership Committee, Region Governors, Board of Directors and many more are pleased to roll out the Society's Student Interest Group (SIG) program. For those student groups interested in becoming affiliated with SWE that cannot meet the requirements of a student section, a new option is available—Student Interest Groups. SIGs allow student members to utilize the name of the Society for group functions, without the need to fulfill all the requirements of a student section. For full details, application procedures, and application form go to the Collegiate Programs "Start A Section" section. If you have any questions on this exciting new membership program please email [hq@swe.org](mailto:hq@swe.org).

*Taken from <http://www.swe.org/E-newsletter/>*

## 2005 National Conference

Online conference registration is now open. For more details about the conference and to register online, visit the National Conference Web site at [www.swe.org/2005](http://www.swe.org/2005). The conference will be held November 3-5, 2005, at the Anaheim Convention Center in Anaheim, CA. The preliminary program book will be mailed later this month. Make sure your member profile contains your current contact information. You can update your profile at [www.swe.org/update](http://www.swe.org/update).

## Dues Reminder

It's July 1 and a brand new fiscal year for SWE. If you have not submitted your renewal fee, why not start the fiscal year off right by submitting your renewal online at <http://www.swe.org/renew>. Renewing has never been easier; all you need is your login, password and credit card information. If you have forgotten your login and password, you can retrieve it at the Member Services Center (<https://www.swe.org/MSC-SWE/retrievelogininfo.aspx>).

*Taken from Cassida's Corner on <http://www.swe.org/E-newsletter/>*

*(Cassida Razor is membership manager, staff liaison to the Membership Committee, as well as registration manager for the National Conference.)*

## SWE seeking Director of Programs to join HQ staff in Chicago

This new position is seeking a person to be responsible for implementing and evaluating current programs; developing, implementing, and evaluating new SWE programs; managing national EWeek activities; and expanding outreach.

Minimum of a bachelor's degree (a technical/scientific degree is not necessary but would be a plus); five to ten years of experience in program management, project management, or directly related experience; exceptional written and verbal communication skills; and a track-record in successfully developing and implementing program offerings. Additional assets might include familiarity with nonprofit management and the ability to read, analyze, and interpret common scientific and technical journals.

*For more information and to apply please visit <http://www.swe.org>.*

## SWE Awards and Recognition

Consider applying for a SWE Section or Student Section award to recognize your programs to advance women in engineering. With SWE's fiscal year beginning on July 1, now is the perfect time to start preparing for FY06 awards. SWE acknowledges Sections/MALs for their accomplishments throughout the year. As you prepare your FY06 calendars/schedules, add "Win a SWE Award" to your initiatives and goals. Your Section/MAL could be considered for one of the following awards or recognition:

### SWE Section/MAL Awards Descriptions/Forms

- Career Guidance Awards
- Professional Development Awards
- Motorola Foundation Multi-Cultural Award
- Strategic Communications Award (includes Website Award and Newsletter Competition)
- Membership Awards
- How To Increase Your Membership

### Student Section Awards Descriptions/Forms

- Student Sections Career Guidance Awards

### Student Membership Contest and Membership Program Awards

- Boeing Team Tech Competition
- Boeing Multi-Cultural Program Award
- Student Technical Presentation Competition (TPC)
- Outstanding Student Section/Outstanding New Student Section

Make one of these awards a priority on your agenda for FY05. Visit the SWE website at [www.swe.org/awards](http://www.swe.org/awards) for more details or contact [hq@swe.org](mailto:hq@swe.org).

### Can We Be of Assistance?

Is there a subject(s) and/or question(s) that you would like to see covered or answered in Cassida's Corner? We welcome your ideas, questions and/or comments. You may contact us via e-mail at [hq@swe.org](mailto:hq@swe.org) and/or by phone at 312.596.5223. We look forward to hearing from you.

*Taken from Cassida's Corner on <http://www.swe.org/E-newsletter/>*

## Newsletter Sponsor

We thank Washington Group International, Inc., for their support in printing and mailing the SWE-RMS newsletter.

## MBA Student Requests Help

SWE Member Sharon Irish is currently working on her MBA research regarding dual career families and is in need of feedback from SWE members. Sharon has developed a questionnaire in which she is asking SWE members to fill out and submit to her. To learn more about Sharon and her project, please visit <http://www.swe.org/e-newsletter/COVERLETTER.htm> or fill out the questionnaire at <http://www.swe.org/e-newsletter/Questionnaire.pdf>

## Subscribe to SWE-RMS Email



**Subscribe to the SWE-RMS Email list to get the latest information on events and programs of the Rocky Mountain Section.**

**Be the first to know about tours, programs, networking meetings, and conferences. Be on the list. Be in the know!**

To subscribe to the SWE-RMS mailing list: email [listproc@lists.colorado.edu](mailto:listproc@lists.colorado.edu) with the message:

subscribe swe-rms last name, first

name

You should receive an email confirmation.

To unsubscribe, email [listproc@lists.colorado.edu](mailto:listproc@lists.colorado.edu), and leave the subject line blank, and type the following in the body of the message: unsubscribe swe-rms

## Region I History

Do you know where our regional name comes from? Region I is derived from the Square Root of -1, also known as the imaginary part, and includes Colorado, Kansas, Missouri, Nebraska, Oklahoma and Wyoming. The region includes 8 professional sections, 22 student sections and Members-at-Large.

*Taken from <http://www.swe.org/regioni/About.htm>*

---

***Region I will host its conference  
March 3 & 4, 2006, (proposed dates) at  
Kansas State University, Manhattan, Kansas.***

## Member Profile: Alina Shosky

**City of residence:** Boulder, Co; (Before July 1, 2005) and Broomfield, Co. (After July 1, 2005). I'll actually be the owner of my own place, this is a very exciting and terrifying moment for me.

**Family:** Right now it's just me. Of course, my parents and extended family live here in the Denver Metro area. I'm too young to have my own family. Besides, it would help to find someone to have those kinds of thoughts about.

**Member grade:** Former student now professional, 2 years going on 3 years.

### How long have you been a member of SWE?

To be perfectly honest, I'd have to look it up in order to find out when I became a member. I was a member for a year or a year and a half before I actually became actively involved in SWE. You know, I paid my dues but never really understood why; I just did it.

As far as I'm concerned I didn't "really" become a member until the summer of 2000.

That summer, I attended my first SWE National Conference in Washington D.C.. I have to admit that my reasons for going were completely selfish. I wanted to go to Washington D.C. and a SWE National Conference was a good excuse to get there. I mean, my room was going to be paid for, conference was going to be paid for and all I had to do was figure out and pay for my own transportation. Once I got to the conference though, my attitude toward SWE and what I wanted to do for SWE changed. I mean, before, it seemed to be a place to vent and meet other "girls" and that was it. I'm sure the intention of the officers at the time was not that, but that's where my thinking was. I met some great women and students at the conference, many of whom I remember when seeing them at subsequent conferences.

Going to the conference gave me global perspective. I realized the world was a lot larger than my experience and I wanted to be part of that. I wanted to learn all I could about myself, about the role of female engineers, and I wanted to know who was interested in the female perspective on engineering. Going to the conference gave me a different view of career development and I saw the grander scheme of what SWE is trying to accomplish. Even if it was only going to be small, I wanted to help make a difference for the

young women I worked with on a day-to-day basis. So, that was the inspiration.

### What positions have you held?

I had been volunteering for the WIEP (Women in Engineering Program) at CU (University of Colorado at Boulder ) for their Engineering Career Day for High School Girls, both planning and volunteering for the day of the program. This all happened through the spring of 2000 (before my little inspirational moment). I planned to carry on these duties through being the "Outreach Coordinator Chair" for the student section of SWE through FY2000/2001. That year I was gung-ho on trying to educate the girls around me about SWE and encourage all of them to participate in our activities. At that point I also got hired on by WIEP to manage their Engineering Career Day program along with Aditi Kapoor (also a SWE member, I might add). We sprinkled our knowledge to as many people as we could and of course encouraged everyone we knew to go to the SWE National Conference 2001, which was held in Denver that summer.

I held Vice-president FY2001/2002. I tried my best but I still think I could have done a better job. As a society we really didn't grow all that much that year, but we did manage to maintain a lot of people and started getting many of the freshman involved in SWE. Which was a good thing because many of the upper-classman graduated that year.

I stuck around Fall 2002 without an office because I was going to graduate that December with an electrical engineering degree. Yes, I attended CU for 5.5 years and only graduated with a B.S. in EE. But I have to admit it was worth the time.

So, Aditi graduated in December 2001 so she was elected SWE Counselor for our section for FY01/02, which I happily helped her out with after I graduated in December 2002. Then, in summer of 2002 she gratefully handed the position over to me, a position I still hold today.

It was only natural for me to become a professional member after I graduated and thanks to Heather Doty I was quickly integrated into professional membership.

### What have you enjoyed most about SWE? Why?

My reasons for enjoying SWE have varied over the short time I've been a member. There are so many aspects of SWE that I really connect with. I certainly enjoy going to the conferences, I meet so many interesting people there and I like going to all the workshops. Of course, I've been too poor to go to the last two conferences, which was really disappointing, but what can you do.

*(continued on next page)*

*(continued from previous page)*

I'm definitely going to this year's, even though my company won't sponsor me. I also just like hanging out with a group of women who can understand my thoughts. There's a certain way of thinking we all share that other women don't appear to have. Or perhaps that's simply my limited lifetime experience speaking. I also enjoy doing activities with the students; it makes me feel like I can be a role model for some of them. I can give many of them encouragement and help them understand that there truly is light at the end of the tunnel. I also enjoy the outreach aspect of SWE, both as a student and now as a professional. I don't care what age they are; girls need to understand that science is fun and useful. Anyone can learn math with the right teacher and girls are smart enough to be a rocket scientist.

Last year, Summer 2004, I took on the responsibility of organizing the North Denver/Boulder SWE Networking Nights. I'm sure my emails at one time or other have bombarded many of you who are subscribed to our email list. Which reminds me, I should send something out for July.

I hope to do a decent job for you as SWE-RMS secretary next year (FY2005/2006). We'll see how that goes.

#### **What is your current occupation/title?**

I am currently a Test Engineer 1 at Ball Aerospace & Technologies Corporation. No, I'm not a rocket scientist but I'm as close to it as I can get. I don't get to think up the ideas but I get to play with the ideas when they become reality. Which, in my opinion, is a lot more fun anyway.

#### **How did you get to that position?**

Let's see. Most of you who know me have heard this story many times, but for those of you who don't...

I started my internship career at Public Service of Boulder after my freshman year in 1998. That summer did not go too well for me. I certainly decided that I did NOT want to be a power engineer.

I had taken a careers class the spring of my junior year, which opened my eyes to the possibilities of what I can truly do in my field. As a whim, I decided to apply for both design and test engineering internships wondering what I would get. That spring as well, IBM held a Women in Technology forum here at the Boulderado. My two friends and I were the only students who showed up even though they had advertised at the local universities. There, I met the VP of the Printing Systems Division of IBM. That summer and the subsequent summer I interned at IBM as a

test engineer (these were after my junior and first senior years).

I liked working for IBM, but I didn't really see myself working there after I graduated. My attention span isn't long enough for me to think about doing the same thing all the time. I realize there were probably other things I could do, but the work wouldn't be different enough for me.

My favorite class in college was the senior projects class. I had loads of fun in that class and worked with three really good guys (both in knowledge and personality). Being an EE, I primarily worked on the electrical system of our project where as everyone else either worked on the digital circuits and firmware. I tried to like software but decided I am definitely better suited to hardware more than software.

Anyway, I bring these previous experiences to the forefront because I believe that these experiences (and of course all my ravings about my contributions to SWE) helped me obtain my internship at Ball. You see, I simply entered my resume into their website. I applied for everything that I thought would apply to me (you could still do that at the time) and got a call from one of their project managers. This particular story is amusing within itself but I won't disclose it at this time. So, because of my experience, honesty, potential, and a dash of luck I was able to find myself walking through the doors of a new world.

So, because of the project I was placed on for the summer of my second senior year (2002) needed long-term help, I was able to work part-time during my last semester of college and was hired on full-time in January of 2003.

#### **What was your college training?**

As I've noted above, I graduated from the University of Colorado at Boulder with a B.S. in Electrical Engineering. I don't know if any further college training is in my future. I'm just not in the mood to go back to school yet. Five and a half years has been plenty for me so far.

#### **Any words of wisdom for college students entering the work force:**

KEEP GOING! (As my Dahn Hak teacher keeps telling me when she's encouraging me to do something difficult.)

Never lose your perspective.

SMILE and LAUGH a lot! (even during the hard times, really it helps)

#### **Hobbies/interests:**

World Travel (and learning about different cultures), Creative Writing, Science Fiction, Reading, Dancing, Movies, Hiking, Camping, Theater, Museums, Yoga and Tai Chi.

So, that was my resume version of my interests and hobbies,

with only a little extra. Yes, when I have room to put it on there I do add this to my resume; you'd be surprised how

## **CU Denver and Health Sciences Center, Downtown Denver**

### **Continuing Engineering Education Program Fall Schedule of Courses 2005**

The Continuing Engineering Education Program offers a number of seminars, workshops, and short courses designed to provide continuing education and professional development opportunities for individuals in engineering and engineering-related fields. Call 303-556-4907 or visit [www.cudenver.edu/engineer/cont](http://www.cudenver.edu/engineer/cont) for more information.

Please note: if you decide to register for a course seven days or less before the course start date, your registration will include a \$35.00 Late Registration Fee. For instance, a Registration Late Fee is assessed if the course starts on August 10<sup>th</sup> and a registration is postmarked/faxed August 3 or later. For this reason, we are no longer able to take telephone registrations. Registration forms are posted on our website or we can email or fax a copy to you.

#### **F.E. and P.E. Refresher Courses**

*Professional Development/Non-Credit*

NCES 8040: Professional Engineer's Examination Refresher Course for Civil Engineering  
Saturdays, August 6 – October 15, 2005; 8:30 a.m. – 12:30 p.m.; \$525

NCES 8060: Professional Engineer's Examination Refresher Course for Chemical Engineering  
Saturdays, August 13 – October 8, 2005; 8:30 a.m. – 12:30 p.m.; \$425

NCES 8050: Professional Engineer's Examination Refresher Course for Electrical Engineering  
Saturdays, August 20 – October 15, 2005; 8:30 a.m. – 12:30 p.m.; \$425

NCES 8070: Professional Engineer's Examination Refresher Course for Mechanical Engineering  
Saturdays, August 20 – October 15, 2005; 8:30 a.m. – 12:30 p.m.; \$425

NCES 8030: Fundamentals of Engineering (FE) Examination Refresher Course  
Saturdays, September 17 – October 15, 2005;  
8:00 a.m. – 5:00 p.m.; \$475

NCES 8020: Professional Engineer's Examination Refresher Course for Civil Engineering: Boot Camp  
Thursday, Friday, Saturday, October 6 – 8, 2005;  
8:00 a.m. – 5:00 p.m.; \$495

many people strike up conversation because of this line.

---

#### **Project Management**

*Professional Development/Non-Credit*

NCES 8999: Project Management Methods: Preparation for the PMP and CAPM Examinations  
Tuesdays, September 20 – December 20, 2005;  
6:00 p.m. – 9:00 p.m.; \$1,650

NCES 8976: Leading a Successful Project Team  
Thursday and Friday, September 29 – 30, 2005;  
8:00 a.m. – 5:00 p.m.; \$495

NCES 8977: Estimating for Real Projects  
Tuesdays and Thursdays, October 4 – 18, 2005;  
6:00 p.m. – 9:00 p.m.; \$595

---

#### **Civil Engineering/Water**

*Professional Development/Non-Credit*

NCES 8322: River and Floodplain Modeling with HEC-RAS, Version 3.1.3  
Wednesday, Thursday, and Friday, August 10 – 12, 2005;  
8:30 a.m. – 4:30 p.m.; \$895

NCES 8271: Engineering Essentials for Wetlands and Wetland Regulations  
Friday and Saturday, August 26 and 27, 2005;  
8:30 a.m. – 4:30 p.m.; \$395

NCES 8382: Construction Site Stormwater Management and Permitting  
Fridays, September 30, 2005; 8:00 a.m. – 5:00 p.m.; \$249  
**NEW DATE/TIME**

NCES 8381: Constructing and Rehabilitating Dams in Colorado  
Wednesdays, October 5, 12, and 19, 2005;  
6:00 p.m. – 9:00 p.m.; \$395

NCES 8383: Introduction to Paleohydrology  
Thursday and Friday, November 3 and 4, 2005;  
8:30 a.m. – 4:30 p.m.; \$595

---

#### **Civil Engineering/Transportation**

*Professional Development/Non-Credit*

NCES 8291: Explicit Consideration of Safety in Highway Design  
Tuesdays, October 25 – November 22, 2005;  
5:30 p.m. – 8:30 p.m.; \$495

## **Mechanical Engineering/Manufacturing**

### *Professional Development/Non-Credit*

NCES 8183: Introduction to Geometric Dimensioning and Tolerancing  
Fridays, September 9 – October 28, 2005; 2:00 p.m. – 5:00 p.m.; \$695

NCES 8114: Cost Management for Manufactured Products  
Fridays, October 14 and 21, 2005; 8:30 a.m. – 4:30 p.m.; \$595

---

## **Computer Science/Information Technology**

### *Professional Development/Non-Credit*

NCES 8695: Optimizing Websites for Google Search Ranking  
Thursday, August 18, 2005; 8:00 a.m. – 5:00 p.m.; \$349

NCES 8652: Introduction to Databases with MySQL  
Thursdays, September 8 – October 27, 2005;  
6:00 p.m. – 9:00 p.m.; \$1,195

NCES 8634: Computer Networking/Cisco CCNA™ Certification Program  
Tuesdays and Thursdays, September 13 – December 6, 2005; 6:00 p.m. – 9:00 p.m.; \$2,995

NCES 8643: Unix Using the Visual QuickStart Guide, 2nd Edition  
Wednesdays, September 14 and October 19, 2005; 6:00 p.m. – 9:00 p.m.; \$795 HYBRID COURSE

NCES 8642: Discovering Linux and Free Applications with a "No-Install" Knoppix CD  
Saturday, September 24, 2005; 9:00 a.m. – 4:00 p.m.; \$349

NCES 8655: PHP Essentials  
Thursdays, November 3 – December 15, 2005;  
6:00 p.m. – 9:00 p.m.; \$795

---

## **Excel for Engineering Applications Program**

### *Professional Development/Non-Credit*

NCES 8775: Excel Basics in Engineering Applications  
Fridays, August 19 – September 16, 2005; 2:00 p.m. – 4:30 p.m.; \$395

NCES 8776: Advanced Engineering Analysis  
Fridays, September 23 – October 14, 2005; 2:00 p.m. – 4:30 p.m.; \$395

NCES 8777: Using the VBA Programming Environment  
Fridays, October 21– December 16, 2005; 2:00 p.m. – 4:30 p.m.; \$695

---

## **Java**

### *Credit/Non-Credit*

C SC 1802: Advanced Java Programming  
Mondays, August 22 – November 28, 2005;  
5:30 p.m. – 9:00 p.m.; \$1,275

C SC 1801: Java Programming Leading Toward Sun Certification: Preparation for the *Sun Certified Java Programmer 1.4* Exam  
Saturdays, August 27 – October 29, 2005; 9:00 a.m. – 3:00 p.m.; \$1,275

---

## **Systems Engineering**

### *Credit/Non-Credit*

ENGR 5302: Systems Engineering: Planning and Management  
Thursdays, August 25 – December 8, 2005; 4:00 p.m. – 7:00 p.m.; \$1,800

ENGR 5303: Systems Engineering: Special Topics  
(Information not available, TBD)  
TBD, Spring 2006, \$1,800

ENGR 5301: Systems Engineering: Principles and Practice  
TBD, Fall 2006, \$1,800

---

## **New Procedures and Policies**

### Enrollment Procedure

1. Students enroll when our department (Continuing Engineering Education Program) receives a registration form by hand delivery, fax, or mail.
2. Once enrolled, our department mails an official confirmation letter with rooming information and a map of the campus you are attending.
3. When a course formally begins, registrations automatically integrate into the University of Colorado at Denver and Health Science Center's Records System.
4. Authorized tuition (and possible fees) bills are distributed/mailed to students.

### Drop/Withdrawal Policy

If you decide to drop/withdraw from a course, for any reason, you must do so in writing by faxing our department at 303-556-6688 no less than three working days before the course start date to receive a full refund.

*(continued on next page)*

(continued from previous page)

### Refund Policy

Please choose wisely, if you begin a course and change your mind, there is no refund. If you do drop/withdraw from a course, our program deletes the registration, but we do retain contact information (mailing address, phone numbers, email address, etc) unless otherwise requested by the student.

### **Building Superior Engineers**

---

## **CU-Denver: Civil Engineering Water Courses**

### **Included this Fall 2005 Semester:**

- River and Floodplain Modeling with HEC-RAS Version 3.1.3
- Engineering Essentials for Wetland Regulations
- Construction Site Stormwater Management and Permitting
- Constructing and Rehabilitating Dams in Colorado
- Introduction to Paleohydrology

Website [www.cudenver.edu/engineer/cont](http://www.cudenver.edu/engineer/cont)

Call 303-556-4907 or toll free 1-877-859-7304

### **River and Floodplain Modeling with HEC-RAS**

#### **Version 3.1.3**

#### **Course Overview**

NCES 8322: This three-day course presents the latest version of HEC-RAS and its applications to model streams, rivers, and floodplains under a flood flow condition. The first day focuses on how to compute water surface profiles for a river network; Day two covers culvert and bridge hydraulics and modeling techniques; and Day three illustrates how to manage HEC-2 data files and GeoRAS for a floodway analysis by various methods. Workshops are designed to have hands-on operations using HEC-RAS to analyze common and practical floodplain problems. Participants will have an opportunity to prepare input files and analyze output.

#### **Course Topics**

- Water Surface Profile Calculation
- Data Requirements for River Models
- Developing a HEC-RAS Model
- Calculation of Water Surface Profiles
- Overview of Optional Capabilities
- Hydraulics of Bridge Waterways
- HEC-RAS Bridge Input-Output
- Bridge Modeling

- Overview of Culvert Hydraulics
- Culvert Modeling with HEC-RAS
- Importing HEC-2 Data
- Floodway Determination
- HEC-2 Data Import and Floodway Determination
- Troubleshooting with HEC-RAS
- Using GIS to Develop Geometric Data for HEC-RAS
- Importing HEC-RAS Results and Developing Mapping in the GIS

#### **Course Details**

**Dates:** Wednesday, Thursday, and Friday, August 10-12, 2005

**Time:** 8:30 AM – 4:30 PM

**Location:** Auraria Campus, Downtown Denver

**Tuition:** \$895.00 includes course notes and HEC-RAS software

### **CEUs: 2.1 Continuing Education Units Engineering Essentials for Wetlands and Wetland Regulations**

#### **Course Overview**

NCES 8271: This 2-day course provides an overview of what engineers, planners, and construction professionals really need to know about wetlands and wetland-related regulations. The first day of the course focuses on Clean Water Act Section 404 Nationwide and Individual Permits and Section 401 Water Quality Permits. Instructors will define what makes a wetland a wetland. The second day consists of field visits to wetlands and wetland mitigation sites in the metro area.

#### **Course Topics**

What is a Wetland?

- Characteristics, Vegetation, Hydrology, and Soil
- What types of Wetlands?
- Riverside, Wet Meadows, and Lakeside
- Wetland Functions and Values
- The Clean Water Act
- Section 404 – Nationwide Permits, Individual Permits, and Enforcement
- Section 401 – Certification, Relationship to Section 404 Permits, and Enforcement

#### **Course Details**

**Dates:** Friday and Saturday, August 26 and 27, 2005

**Time:** 8:30 AM – 4:30 PM

**Location:** Auraria Campus, Downtown Denver

**Tuition:** \$395.00 includes instructor notes

## **CEUs: 1.4 Continuing Education Units Construction Site Stormwater Management and Permitting**

### **Course Overview**

NCES 8382: This course provides instruction on National Pollutant Discharge Elimination System (NPDES) permitting for the construction industry. Regulatory changes in the early 21<sup>st</sup> century lowered the threshold area of disturbance requiring a permit from five acres to one acre for construction activities. The Colorado Department of Public Health and Environment (CDPHE) administers the general permit for Stormwater Discharges Associated with Construction Activities in Colorado. This course reviews the basis of stormwater permitting including the regulatory framework and receiving water impacts. Examining the requirements of a stormwater management plan (SWMP) and review “dos” and “don’ts” of construction site best management practices (BMPs). Instructor provides first hand knowledge of technical and administrative permit compliance and reviews potential consequences of non-compliance. Students learn fundamentals of regulatory compliance for stormwater management on construction sites. With recent increased inspections across the country and in the metropolitan Denver area, people involved in the construction industry including “big box” stores and the United States Environmental Protection Agency (USEPA) has put high production homebuilders on notice. Local and state regulators are raising awareness as well. This course provides students with a “common sense” approach to construction site stormwater management and educates students about creating a SWMP, as well as taking care of documentation required by the permit.

### **Course Topics**

- Regulatory Framework
- Receiving Water
- Impacts
- Clean Water Act
- General SWMP Requirements
- Enforcement
- Detailed SWMP Review
- Paperwork and Documentation
- Inspections
- BMP “Dos” and “Don’ts”

### **Course Details**

**Dates:** Two consecutive Fridays, September 23 and 30, 2005

**Time:** 1:00 PM – 5:00 PM

**Location:** Auraria Campus, Downtown Denver

**Tuition:** \$249.00 includes booklet containing slides used in lectures, photos, and CDPHE General Permit for Stormwater Discharges associated with construction activities.

## **CEUs: 0.8 Continuing Education Units Constructing and Rehabilitating Dams in Colorado**

### **Course Overview**

NCES 8381: In this exciting new course students gain skills related to dam rehabilitation techniques, their construction and failure modes, and the current issues surrounding dams. Participants develop proficiency with State Dam applications and the ability to evaluate if a dam meets current State Regulations in the State of Colorado. This course is designed for water resource professionals involved in dam design or have clients who are dam owners. This course will provide participants with the following four items:

- an understanding of the current status of dams in the United States
- an understanding of failure modes and how to prevent them
- an understanding of the State of Colorado dam safety and regulatory requirements
- an ability to understand and complete the appropriate forms to submit to the State of Colorado for a new dam or to retrofit a dam. Which forms to use for your structure and when to use them are discussed. The pros and cons of jurisdictional versus non-jurisdictional dams will also be discussed.

### **Course Topics**

- Current Status
- Federal Guidelines
- State Guidelines/Classifications
- Application to Construct a Dam
- Dam Failure Modes and Examples
- Dam Safety: What to look for as a dam ages
- Options for an Aging Dam: Retrofit, remove, or rebuild

### **Course Details**

**Dates:** Wednesdays, October 5, 12, and 19, 2005

**Time:** 6:00 PM – 9:00 PM

**Location:** CU at Interlocken Campus, Level (3)  
Communications, Broomfield

**Tuition:** \$395.00 includes instructor notes

## **CEUs: 1.2 Continuing Education Units Introduction to Paleohydrology**

### **Course Overview**

NCES 8383: Ken Wright, P.E., founder of Wright Water Engineers, Inc in Denver, has published several books on civil engineering at Machu Picchu and Mesa Verde through the American Society of Civil Engineers and the American Public Works Association. Dr. Andrew Earles has been a participant in these research efforts for the past six years. The Wright Paleohydrological Institute has supported their

*(continued on next page)*

*(continued from previous page)*

work conducted at Machu Picchu and Mesa Verde, as well as other sites including an ancient Roman granary in France and a floodwall in Olympia, Greece. This short course introduces the subject including work done through WPI.

### **Course Topics**

The value in the course is sharing information learned on the details of conducting these paleohydrological research projects including:

- Obtaining permits for research (can be difficult for National Park Service Land and even more so in a foreign country)
- Learning how to interact with other professionals on a multi-disciplinary research team including archaeologists, geologists soil, scientists, sediment experts, etc.
- Field methods: simple hand level surveying, GPS uses, bearings (Brunton compass), infiltration measurements, soil borings and classification and other types of measurements collected in the field
- Method for reconstructing data from thousands of years ago including dendrochronology, carbon dating, sediment stratigraphic analysis, ice core data, slope area method for extreme discharge events, and others
- Introduction to geomorphic analysis
- Tips for good documentation
- Potential funding sources for research

### **Course Details**

**Dates:** Thursday and Friday, November 3 and 4, 2005

**Time:** 8:30 AM – 4:30 PM

**Location:** Auraria Campus, Downtown Denver

**Tuition:** \$595.00 includes booklet containing all slides used in lectures and a 2006 Machu Picchu scenic calendar

CEUs: 1.4 Continuing Education Units

## **IMPORTANT REMINDERS**

### **Enrollment Procedure**

1. Students enroll when our department (Continuing Engineering Education Program) receives a registration form by hand delivery, fax, or mail. Visit [www.cudenver.edu/engineer/cont](http://www.cudenver.edu/engineer/cont) to find registration forms posted online. Call 303-556-4907 for more information.
2. Once enrolled, our department mails an official confirmation letter with rooming information and a map of the campus you are attending.
3. When a course formally begins, registrations automatically integrate into the University of Colorado at Denver and Health Sciences Center's Records System.
4. Authorized tuition bills (and possible fees) are distributed/mailed to students.

### **Drop/Withdrawal Policy**

- If you decide to drop/withdraw from a course, for any reason, you must do so in writing by faxing our department at 303-556-6688 no less than three working days before the course start date to receive a full refund.

### **Refund Policy**

- Please choose wisely, if you begin a course and change your mind, there is no refund. If you do drop/withdraw from a course, our program deletes the registration, but we do retain contact information (mailing address, phone numbers, email address, etc) unless otherwise requested by the student.

### **Late Registration Fee**

- If you decide to register for a course seven days or less before the course start date, your registration will include a \$35.00 Late Registration Fee. For instance, a Registration Late Fee is assessed if the course starts on August 6th and a registration is postmarked/faxed July 30th or later.

### Calendar of Events

For complete details, directions, and more, visit the RMS website calendar.

August 14, 2005	SWE-RMS Family Picnic (Time and location TBA)
<b>September 12, 2005</b>	<b>Deadline for SWE-RMS September/October 2005 Newsletter (anticipated release date: October 7)</b>
October 28 – 29, 2005	NCEES Exams – October 28 (PE, PLS), October 29 (FE, FLS)
November 2-5, 2005	SWE National Conference, Anaheim, California
November 14, 2005	Deadline for SWE-RMS November/December 2005 Newsletter (anticipated release date: December 9)
January 9, 2006	Deadline for SWE-RMS January/February 2006 Newsletter (anticipated release date: February 11)
March 3 – 4, 2006	Region I conference, Kansas State University, Manhattan, Kansas
April 21 – 22, 2006	NCEES Exams – April 21 (PE, PLS), April 22 (FE, FLS)
October 11 – 14, 2006	SWE National Conference, Kansas City, Missouri

Society of Women Engineers  
Rocky Mountain Section  
P.O. Box 260692  
Lakewood, CO 80226-0692