

## SWE Outlook

## February 2006

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We will gladly include news items, photos, and activities from SWE Student Sections and nearby SWE Sections in SWE Outlook.

Announcements for other organizations will be included as time and space permit. Please send inputs to newsletter editors Aina Zahari at <a href="mailto:azahari@rohmhaas.com">azahari@rohmhaas.com</a> or Jurica Lee at <a href="mailto:jurica\_lee@yahoo.com">jurica\_lee@yahoo.com</a>

The New Year marks the halfway point for our SWE year. The first half of the year has been busy with our monthly meetings and the conference committee has been laying groundwork for the Region E conference. Diana Fernie, our new website coordinator, has the new website up and running. Please take the time to check it out at <a href="https://www.philaswe.org/">https://www.philaswe.org/</a>.

The second half of the SWE year will be busier than normal. There is the regularly held Future City Competition on January 28<sup>th</sup>, The Widener/SWE Engineers Mini Camp for girls on February 11<sup>th</sup>, and Engineers Week activities February 17<sup>th</sup> through the 25<sup>th</sup>. Due to facility issues, the Vanguard/SWE Technology Day planned for February is being rescheduled for September. Look for details over the summer. In addition to these events, the scholarship activities will be ramping up in the next month. Suzanne Chiavari will be looking for assistance with judging and other scholarship related activities. If you are interested, please contact Suzanne, <a href="mailto:schiavari@amwater.com">schiavari@amwater.com</a>, to find out how you can help. Last and definitely not least, the Conference committee will be working hard to finalize the conference. Jen Garner is planning on having meetings every other week. She is still looking for volunteers for both planning and day of activities. Please help our section make this a great conference by volunteering even a little bit of your time.

Finally, it is time again to think about officer elections. Over the next month and a half we will be looking for nominations for President, Vice President, Treasurer, Secretary, and Section Representatives (1-2). If you would like more information on any of these positions or would like to nominate yourself, please contact me, <a href="https://habernardin@yahoo.com">habernardin@yahoo.com</a>.

Heather Bernardin

#### Some websites to visit...

SWE Philadelphia NEW website: http://www.philaswe.org/

SWE Region E conference site:

http://www.philaswe.org/conference/conference.html

Future City: http://www.futurecityphilly.org/

Widener/SWE mini camp:

http://www.widener.edu/Academics/Schools amp Colleges/School of Engineering/News Special Events/Special Events/Special Events/Special Events for High School Students/2006 Engineering Mini Camp for High School Girls/3603/

2006 Delaware Valley Engineers Week http://www.dvewc.org/

## SWE Calendar - FY06

Date		Event	Location
Feb '06 (4 <sup>th</sup> , 5 (11 <sup>th</sup> , 5 (Jan 24 <sup>th</sup> – Feb 1 (16 <sup>th</sup> , Thu (17 <sup>th</sup> – 25 <sup>th</sup> , 5	Sat) 5 <sup>th</sup> ) irs.)	Expanding Your Horizons Conference Widener/SWE Engineering Mini-Camp EWeek seminars Seminar: Dealing with Difficult People Engineers Week activities	Easton, PA Chester, PA Web Web Various
(25 <sup>th</sup> , Fe		PA Junior Academy of Science	Easton, PA
Mar '06 (6 <sup>th</sup> , Mo (8 <sup>th</sup> , We (14 <sup>th</sup> , Tu (19 <sup>th</sup> , S (31 <sup>st</sup> - April	d) es) at)	Webseminar: Speaking with Authority/Gaining Confidence Conference Planning Meeting Webseminar: Top Ten Guide for Working Mothers AAUW Touch the Future Program Region E Conference	Web TBD Web Lansdale, PA Philadelphia, PA
Apr '06 13 <sup>th</sup> , Tho	,	Annual Scholarship Banquet (6 PM)  Webseminar: Culture and Gender diversity	Sheraton Park Ridge, King of Prussia Web
May '06 (8 <sup>th</sup> , M	on)	Technical Tour	TBD
June '06 (13 <sup>th</sup> , Tu	es)	Annual Section Planning Meeting	TBD

## **National News**

• On the national level this year, the Society of Women Engineers and Northrop Grumman Corporation are co-chairing Engineers Week. Engineers Week is a formal coalition of more than 70 engineering, education, and cultural societies, and more than 50 corporations and government agencies. Dedicated to raising public awareness of engineers' positive contributions to quality of life, Engineers Week promotes recognition among parents, educators, and students of the importance of a technical education. This year's theme is Engineers Make a World of Difference.

Eight free, one-hour long **webseminars** have been scheduled between January 24<sup>th</sup> and February 15<sup>th</sup>. The sessions will make your EW eek and outreach experiences a success. No pre-registration needed! Visit the EW eek website (http://www.eweek2006.org/) for details on the seminars and for other information on 2006 Engineers Week. You can learn how to effectively make presentations and reach out to students in middle school, and how to connect with educators in your area.

This year's main program, Connecting Educators to Engineering, is focused on bringing tools and great information to educators around the world. SWE still needs moderators for the online forum, which is part of the program. Moderators just need to allocate a minimum time commitment to check the forum several times a week and respond to specific questions and issues discussed. Forums last through the end of April.

#### The **SWE MISSION** is to:

- > stimulate women to achieve full potential in careers as engineers and leaders;
- expand the image of the engineering profession as a positive force in improving the quality of life; and
- demonstrate the value of diversity

## **Section News**

## SWE/Widener Engineering Mini-Camp

The SWE/Widener University Engineering Girls Camp for high school girls will be on **Saturday**, **February 11** at the Widener University campus in Chester, PA. The 9:00 a.m. – 4:00 p.m. camp is an opportunity for high school girls interested in science and math to explore engineering careers in a hands-on laboratory setting with women from the SWE Philadelphia and Delmarva Sections, as well as female engineering students and alumni from Widener University. A separate Parents Program runs concurrently with the Girls Camp.

Vicki Brown, associate professor at Widener University is calling for volunteers to lead a lab. Individuals who can only volunteer for part of the day are also welcomed. Women engineers will try to be matched with labs that are related to their field of work. All the labs are fairly simple and straightforward and there will be students available to help you. Many of the labs were run last year, so some of you will be familiar with some of them. Possible labs for 2006 include:

- 1. Roller Coaster Design CE/ME (girls build roller coasters out of pipe insulation & duct tape)
- 2. Tower Building CE (girls build structures from straws and tape and test them under gravity & lateral loads)
- 3. Water Treatment CE/ChE (girls clarify "dirty" water samples using activated charcoal & collagen, lab set up by a CE prof. someone needed to assist him)
- 4. Bridge Design Software CE (girls use software to design bridges & run computer simulations)
- 5. Pavement Design with Chocolate Asphalt CE (girls model asphalt pavement with chocolate no-bake cookies, lab will be set up for you)
- 6. Electrical Engineering EE (girls build circuits, lab will be set up by an EE prof, someone needed to assist)
- 7. Programmable Robots EE/ME/CSci (girls program already-built Lego robots to maneuver through a maze)
- 8. Lego Cars ME (girls build and race Lego cars)
- 9. Chemical Engineering ChE (reaction kinetics, lab will be set up by a ChE prof, someone needed to assist)
- 10. Aerodynamics & Flight ME/EE (girls build & fly paper airplanes, MaryAnn Skehan organizes this one but may need extra help)
- 11. Soils & Foundation Design CE (lab will be set up by a CE prof, someone needed to assist him)
- 12. Bioengineering ME/ChE/EE (acid reflux valve, lab will be set up by a ME prof., someone needed to assist him)
- 13. Bioengineering ME/ChE (artificial skin, lab will be set up by a ChE prof, someone needed to assist him)
- 14. Parents Program morning session only (all disciplines to talk about their career experience with parents)

Do contact Vicki at <a href="mail.widener.edu"><u>vlb0001@mail.widener.edu</u></a> or 610-499-4607 to let her know if you can volunteer and which labs would best suit your interests and background. Volunteers usually have a good time doing the activity.

### 2006 Region E Conference

Plans are well under way for the 2006 Region E conference, co-hosted by our SWE Philadelphia Section and the SWE-Drexel Student Section. Please **look at pages 6-8** for information on registration, conference workshops, and logistics. Up-to-date information, more details and other useful links can be found on the Regional Conference website (<a href="http://www.philaswe.org/conference/conference.html">http://www.philaswe.org/conference/conference.html</a>).

### Science Fair Judges Needed

SWE Philadelphia, Lehigh Valley, and DelMar Peninsula Sections serve as judges and provide SWE Special Awards at local science fairs. The Philadelphia Section also provides judges and special awards at the regional Delaware Valley Science Fairs Competition. If you are interested in serving as one of the judges who determine the projects that advance to the next level of competition, please visit <a href="www.Drexel.edu/dvsf/regional\_fairs.htm">www.Drexel.edu/dvsf/regional\_fairs.htm</a> for contact information of science fair coordinators throughout the region. If you wish to serve as a SWE judge, please contact Barb Faust at Barbara.Faust@swe.org.

## Donation Request - SWE Philadelphia Section

Our SWE Philadelphia section is calling on members to submit donations to Michelle Lore (<a href="mailto:mlorer74@comcast.net">mlorer74@comcast.net</a>) to help support our activities. A direct mailing has been sent to Section members to help us raise funds for our Scholarship Program for college students and SWE-Widener Engineering Mini-Camp Program for high school girls. Extra member support this year will be appreciated.

## Announcements/ Regional News

## **Expanding Your Horizons Conference**

SWE Lehigh Valley, Lafayette College, and the National Canal Museum are sponsoring a **career conference** for young **women in grades 5-8**. The conference will be held on Saturday, Feb. 4 at Lafayette College in Easton, PA. 16 volunteers are needed for the day, for the following assignments:

Registration/ Food - 3 people, 7:30 am - 1:00 pm

Nurse Assistant - 1 person, 8:00 am - 1:15 pm

Workshop Leader Assistant - 12 people, 8:30 am - 12:30 pm

Lunch, morning snack, and a t-shirt are included for all volunteers. Please contact Kathy Kinsey of Air Products at (610) 481-3323 if you can help out on the day itself, help distribute brochures and press release or aid in seeking financial support.

## 2006 Delaware Valley Engineers Week Events

#### **Engineers' Week Proclamation**

The 2006 Engineers' Week in the Delaware Valley will kick off with the Proclamation Luncheon at the Union League, 140 South Broad Street, in Center City on Friday, February 17, 2006. This event, which begins with a cash bar at 11:30 AM followed by lunch at noon, will introduce the 2006 Delaware Valley Engineer of the Year and present the Engineers Week Proclamations and Engineering Achievement Awards. Cost: \$35.

#### Young Engineer of the Year Dinner

This event to honor the 2006 Delaware Valley Young Engineer of the Year will be held at the McCall Country Club, Lynn Boulevard in Upper Darby, on February 22 '06. The evening begins at 5:30 PM with a reception and cash bar, with dinner at 6:15 PM. This event is presented by the Engineers' Club; cost is \$35.

#### **Engineers Week Banquet**

The banquet, the "main event" of Engineers Week, will be hosted by the University of Pennsylvania at the Inn at Penn on Saturday, February 25. This event starts at 6 PM with a reception and cash bar followed by dinner at 7 PM. The cost of this event is \$60. The banquet will feature and recognize:

- 2005 and 2006 Engineers of the Year
- Outstanding Engineering Achievements
- Young Engineer of the Year
- Outstanding Math and Science Teachers
- Undergraduate Student Papers
- Outstanding High School Students
- Future City Competition Winners
- Outstanding Service Awards

Reservations are required one week in advance of the event. For more information, visit <a href="www.dvewc.org">www.dvewc.org</a> or contact Richard A. Mulford, P.E. at the Engineers' Club (215-985-5701).

## SEAP Open for 2006

Do you know of high school students who would be interested in **summer research opportunities**, with stipend, with the **Office of Naval Research**? The program, to be held in several states, will begin on 19 June and end on 11 August. The **Science and Engineering Apprentice Program (SEAP)** gives motivated students the opportunity to be exposed to Navy projects. Participants receive hands-on experience in the fields of engineering, science, and computers in a R&D environment. Students experiment with a technical career and learn about other types of careers that are available in the division. Our engineering mentors work with high school students during the summer to give them a first-hand understanding of professional methods to foster their desire to pursue college-level training. Interested students must apply online at <a href="https://www.asee.org/seap">www.asee.org/seap</a> by 17 February 2006. Questions can be directed to the SEAP Coordinator at the Naval Surface Warfare Center in Philaldelphia, at 215-897-7219 or via <a href="mailto:Jacqueline.Yeager@navy.mil">Jacqueline.Yeager@navy.mil</a>.

## PA Junior Academy of Science

On Saturday, February 25, 2006, junior and senior high school students affiliated with the Pennsylvania Junior Academy of Science Region III will present their science, computer, and math projects at Easton Area High School in PA. Please consider donating your time and talent to serve as a judge of these presentations. Your help is needed to promote the appreciation of science, technology, and math in today's young people. Hundreds of judges are needed. If you are interested, contact Megan K. Basile via e-mail (<a href="mailto:mbasile@stsd.org">mbasile@stsd.org</a>) or at 610-366-9234 immediately.

## AAUW Touch the Future Program

The Lansdale Chapter of the American Association of University Women (AAUW) is sponsoring its 13<sup>th</sup> annual program, **Touch the Future: A Celebration of Women in Math and Science**, on Saturday, March 19, 2006, at the Walton Farm Elementary School in Lansdale, PA. Volunteers are requested to conduct hands-on half-hour workshops for middle school students. At most, any workshop leader will have five sessions. The number of workshops will depend on the final number of presenters and the number of student participants. SWE members have conducted workshops for at least the past five years. If interested, contact Lee L. Wolfe, P.E., Workshop Leader Coordinator, by phone at 610-337-0274 ext.128 or at lee\_wolfe@urscorp.com.

## Opening Engineering for Girls

SWE Region E is sponsoring a new website for girls to learn about engineering. Opening Engineering for Girls is the Gold Award project of Girl Scout Lauren Clark. The website (<a href="http://www.swe.org/SWE/RegionE/OpeningEngineering/">http://www.swe.org/SWE/RegionE/OpeningEngineering/</a>) includes basic information on what engineering is and what high school courses are required to prepare for an engineering education, as well as a very comprehensive list of resources for exploring engineering in middle school and high school. Lauren also included her experiences as a girl interested in math, science and engineering, and a very heart-felt encouragement to other girls with similar interests. Share the link with a girl you know who would benefit from hearing another girl's perspective, or who might be interested in a summer program about engineering.

## • F.I.R.S.T ROBOTICS - Financial Donation Request

Mount Saint Joseph Academy (MSJA), an all girls school, is seeking support for two F.I.R.S.T. robotics teams. F.I.R.S.T. (For the Inspiration and Recognition of Science and Technology) is a unique, high school educational program that strives to build appreciation and involvement in science, technology, engineering, and math. MSJA's team, the Firebirds, is in their 6th year of National Competition. Last year they were at Atlanta for the Nationals. In summer 2005, a faculty member of MSJA presented the F.I.R.S.T. program to the Aggrey Memorial High School of **Ghana**. With the team's help the Ghanaians are now the first African team registered in a F.I.R.S.T. competition. The Firebirds' goal is to raise enough money to support both teams so that the Aggrey team can complete their robot, and travel to Philadelphia in March to partake in the Regional competition. If you would like to contribute or can help find corporations that would be interested in supporting the endeavor, please contact Gabrielle Jordan of MSJA at 215-757-9628.

#### 2006 REGION E CONFERENCE SCHEDULE

### Friday, March 31 (Sheraton University City, Fairmount Suite)

6:00 - 9:00 pm Registration

6:30 - 8:30 pm Chocolate Social

#### Saturday, April 1

8:00 - 9:30 am	Registration and Breakfast	Sheraton University City, Fairmount Suite
8:30 - 9:30 am	Career Fair Registration	Drexel University, Main Building Great Hall

9:30 am - 3:30 pm Career Fair

10:00 - 10:50 am Workshop 1 Drexel University, Main Building Classrooms

11:00 – 11:50 Workshop 2

12:15 - 1:30 pm Lunch Drexel University

1:30 – 3:00 pm Open time for career fair, informal meetings, networking

3:00 - 3:50 pm Workshop 3 Drexel University, Main Building Classrooms

4:00 - 4:50 pm Workshop 4

6:30 – 8:30 pm Conference Banquet at Sheraton University City, Benjamin Franklin Ballroom

Evening Social Outing, Explore Philadelphia

#### Sunday, April 2 (Sheraton University City, William Penn and University Suites)

8:00 – 9:00 am Breakfast

9:15 - 11:30 am Regional Business Meetings

#### Workshop Topics, times TBA

Round Table, Section Best Practices

CLCC – Learning Leadership Styles Graduate School

CLCC – Nuts & Bolts of SWE Engineering-to-Management
CLCC – Building Membership Revamping your Resume

CLCC - Conflict Resolution Communication with Non-Engineers

Evaluating and Negotiating Job Offers Dual Career Families

Engineering for the Community PE Licensure and Technical Certifications

Gender Roles in the Workplace

Business Etiquette Finances

## Registration Form SWE Region E Conference

March 31 – April 2, 2006

Drexel University/Sheraton University City, Philadelphia PA Women Engineers: Bridging the Past, Present, and Future Registration to be Postmarked/E mailed by March 17, 2006

Questions: Jen Garner, 215-393-3597; foilfencer27@verizon.net; www.philaswe.org

Personal Information:	
Name	Phone
Address	E mail
	SWE Member No.
University	Company
(if student) Major	(if professional) Title
Section Affiliation	Not a SWE Member check here

Conference Registration: Full Registration includes all events and meals Friday through Sunday. Student full registration includes 2 nights hotel stay, 4 students per room. Professional full registration does not include hotel stay. At least one person per room will have to present a credit card for additional room charges during their stay.

Please circle your registration choice and cost (e.g. "Full with Hotel", "Saturday only", etc.)

	Full Registration With Without		Saturday	Add Friday	Add Sunday
	Hotel Hotel	Only	Social	Meeting	
Student Member	\$100	\$45	\$30	\$10	\$15
Professional Member		\$70	\$50	\$10	\$15
Student Non- Member	\$110	\$55	\$40	\$15	
Professional Non- Member		\$100	\$80	\$15	

If registration is postmarked or e m	ailed after March 17,	2006, add \$25.	
Total Registration: \$			
Please confirm you are attending	☐ Friday Social	☐ Saturday Banquet	
(check all that apply)	☐ Sunday Breakf	ast	
Please indicate any special needs	during the conferenc	e including meals: 	
Payment Method:	neck Enclosed	□ Pay Pal	
Make check payable to Society of Nelow. Send registration form via 6 US mail to	_		
	Jennifer Garne 551 Edgemont A Lansdale, PA 19	ve	
Hotel Reservations, for Professional 215-387-8000 and indicate you are \$145 per night plus tax. Reservation SWE rate. http://www.philadelphia	attending the SWE	Region E Conference. Hotel Ra	ate is
Hotel Reservations, Students:			
Preferred Roommate (s):			
Workshop Preferences: Please inc planning purposes only. Workshop workshops that you rank.		•	
CLCC – Learning Leadership S CLCC – Building Membership Graduate School Revamping your Resume Finances Engineering for the Community Engineering to Management Communication with non-Engine	y	CLCC – Nuts & Bolts of SWE CLCC – Conflict Resolution Evaluating and Negotiating Jo PE Licensure and Technical ( Dual Career Families Round Table (Section Best P Business Etiquette Gender Roles in the Workplan	ob Offers Certs ractices) ce
<u>Volunteer Opportunities</u> : If you wo (registration, workshop rooms, care			šl.

## Professional Development

#### **❖SWE National Seminars**

Mark your calendars for the following SWE Web and live seminars. Information on registration and meeting times will be made available on <a href="https://www.swe.org">www.swe.org</a>.

Topic	Audience	Date
3 Part Communications Web Seminar Series (3:00 p.m. EST)		
Part 1 - Dealing with difficult people	Entry/Middle level managers	2/16/2006
Part 2 - speaking with authority/gaining confidence	Entry/Middle level managers	3/6/2006
Part 3 - culture and gender diversity	Entry/Middle level managers	4/25/2006
Work Life Balance - Top Ten Guide for Working Mothers Web Seminar	All	3/14/2006
Project Management Best Practices One Day Seminar	Middle level managers	3/31/2006
Leadership Styles Web Seminar	Senior level and Executive	4/12/2006
Six Sigma: What is it and how can it advance my career Web Seminar	Entry/Middle level managers	5/10/2006
Three Women Engineers who've made it & what they've learned Web Seminar	All	5/17/2006
Time Management: How to get it all done and stay sane when you don't Web Seminar	Entry/Middle level managers	6/7/2006
Team Building & Conflict Resolution One Day Seminar	Entry/Middle level managers	6/22/2006

SWE Professional Development Spring 2006 programming kicks off with part one of a communications series. Tune in at February 16 '06 (3:00 p.m. EST) for "Make Things Happen! – How to Build Buy-In, Even with Difficult People." This session focuses on gaining strong persuasion skills and getting your ideas across. Let Connie Dieken, journalist and experienced television news anchorwoman, take you on an important journey to develop skills for life and transform you into a high-performer. You'll learn how to influence and convince people more easily.

#### Spring 2006 Engineering Tours of the Delaware Valley

The Engineers' Club of Philadelphia is sponsoring four engineering tours this Spring. Each tour awards 2.5 Professional Development Hours (PDH) towards P.E license renewal. Club membership is not required. Each club member and a guest may attend at no charge, except for the Longwood Gardens Tour. Cost for non-members is \$10 per person, except for Longwood Gardens. For more information or to make reservations, please contact the Engineer's Club directly via phone (215-985-5701), e-mail (info@engrclub.org), or fax (215-985-5704).

## Two Rivers Landing - Home of Crayola Factory & National Canal Museum, Easton, PA.

Wednesday, March 15, 2006 at 11:30 AM - Tour the factory and the museum. Lunch will be served at the McDonald's Lunch Room at 1:15 PM. Tour group is limited to 30 persons.

## **QVC - The World's Leading Electronic Retailer**, West Chester, PA.

Saturday, April 1, 2006 at 10 AM - This tour provides a behind-the-scenes look at a fascinating national TV retail operation. Tour group is limited to 40 persons.

Verizon Fiber Optic Cable System, Southeastern PA Wednesday, April 12, 2006 at 10 AM - Learn more about the wonders of fiber optics and Verizon's on-going efforts to use this technology to improve communications service in our area. Tour group is limited to 40 persons.

Longwood Gardens, Kennett Square, PA Saturday, April 29, 2006 at 10 AM - Visit one of America's foremost horticultural displays. Tour group is limited to 40 persons. Cost: \$10 for club members and guests, \$20 for non-members.

## Engineers' Club of Philadelphia Courses for Spring 2006

#### Construction

- **C-1 The 2003 International Building Code** 10 weeks starting Monday 3/13/06, 6-8:30 PM, \$600. Primarily covers in depth the non-structural provisions of the code with a structural and materials over view. This code has been adopted as the state code of PA, NJ, NY, MD and two counties in DE. The 2003 International Building Code® will be provided as a text.
- **C-2** Home and Building Inspection 10 weeks starting Monday 3/13/06, 6-8 PM, \$500. Things you need to know to inspect all types of external, internal, and structural systems. A text, supplemental information, and a field trip will be provided.
- **C-3 Construction Project Management** 8 weeks from Thursday, 3/16/06, 6-8:30 PM, \$500. Develops a comprehensive management system for planning, scheduling, estimating costs & financial control of projects.
- **C-4 Owners Representative for Construction "Clerk of the Works"** 9 weeks starting Wednesday, 3/15/06, 6:30-8:30 PM, \$500. A comprehensive review of the methods and procedures required to be an owners representative for a construction project.

#### **Electrical**

- **E-1 Basic Protective Relaying** 10 weeks starting Tuesday, 3/14/06, 7-9 PM, \$500. Application and testing of protective relays found in utility and industrial electric power systems.
- **E-2 Fiber Optics & Network Wiring** 12 weeks starting Tuesday, 3/14/06, 6:300-8:30 PM, \$650. A hands-on course for the installation, trouble shooting, and repair of small fiber optic networks. This course satisfies the requirements for students who want to take the certification test for fiber optic installers.
- **E-3** Fundamentals of Instrumentation & Control 8 weeks starting Thursday 3/16/06, 6:30-8:30 PM, \$550. Fundamentals of instrumentation and process control as found in industrial plants.

#### Fire Protection Engineering

- **F-1 Fire Alarm & Detection Systems** 10 weeks starting Monday 3/13/06, 7-9 PM, \$500. An in-depth review of fire alarm and detection systems including building and fire code requirements, NFPA and design of commercially available systems.
- **F-2 Sprinkler Systems Basics** 10 weeks from Monday 3/13/06, 7-9 PM, \$600. Detailed review of the NFPA standards for commercial and residential sprinklers, fire pumps, standpipes, water supplies, and underground.

#### Mechanical

- **M-1 Heating & Ventilation** 10 weeks starting Wednesday, 3/15/06, 7-9 PM, \$600. Building heating codes, heat loss calculations, heating and ventilation system design, and equipment selection.
- **M-2** Basic Piping Design 10 weeks starting Tuesday, 3/14/06, 7-9 PM, \$500. Basic theory and application of piping design found in boilers, air-conditioning systems, refineries, nuclear and fossil fuel power plants, chemical processing, metallurgical industries and drainage systems.
- **M-3** Air Conditioning 10 weeks starting Thursday, 3/16/06, 7-9 PM, \$500. Building cooling codes, heat gain calculations, cooling and air conditioning systems design, and equipment selection. Successful completion of Engineers' Club Heating & Ventilation Course is a prerequisite.

For more course and registration information, please call Tom Payne (215-985-5701).



### SWE Philadelphia Section The Engineers' Club of Philadelphia 215 South 16<sup>th</sup> St, Suite 36 Philadelphia, PA 19102

Address Correction Requested

Visit our Web Site at <a href="http://www.philaswe.org">http://www.philaswe.org</a>
Contact Us by E-mail: <a href="phila\_info@swe.org">phila\_info@swe.org</a>

# SWE Philadelphia Section Newsletter February 2006

SWE-Widener Engineering Mini-Camp for High School Girls (Saturday) February 11, 2006

Participate in Engineers' Week activities throughout the area!

**ASPIRE - ADVANCE - ACHIEVE** 

The Society of Women Engineers is a non-profit, educational service organization dedicated to making known the need for women engineers and encouraging young women to consider an engineering education.