



**S**ociety of **W**omen **E**ngineers  
Sacramento Valley Section



# Valley Views

A Bi-Monthly Publication for the  
SWE Sacramento Valley Section

January - February 2012

## SWE SVS CALENDAR OF EVENTS

### January

26 Joint Section Meeting  
Rancho Cordova

TBA Scholarship Fundraiser  
Planning Meeting  
Sacramento

### February

1 Y.E.S! Planning Meeting  
Rancho Cordova

10 Quarterly Luncheon  
Davis

19-25 Engineers Week  
Nationwide

29-March 3 Regional ABJ Conference  
Hawaii

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# LETTER FROM THE EDITOR

Happy New Year! I hope your winter vacation was full of joy, fun and relaxation. Vyomini is on her vacation but she will be back soon to join us for upcoming SWE Sac Valley events. As your newsletter editor, I get to preview many of the events in advance and I'm really impressed with the schedule for this year. Thank you for continuing to be a SWE member and for fostering enthusiasm for math, science and engineering.

I'd like to extend a special welcome Laura Doyle, Liana Loutan and Anne Manuel to the section. They are featured in the "New Member Profiles" column on page 3.

In an effort to continue offering scholarships and mentoring services to local students, SWE Sac Valley needs your help! Please view the "Call For Volunteers" section on page 6 of the newsletter for more information and then decide how you can fit in to help influence a young person's life.

The next two months include several opportunities to meet with other women engineers at the regional and national levels. On January 26th, please join us at a Joint Meeting with the Sierra Foothills Section (see flyer at the end of the newsletter). Sharon Stiles, Financial Services Professional, will provide a realistic overview of how to set and reach financial, investment, and retirement goals. February 10th is the Quarterly Luncheon in Davis, and this is followed by a National, week-long celebration of engineers called Engineers Week, running February 19th to 25th. At the end of February, women engineers from 10 states and internationally will convene in Hawaii for the 2012 SWE Regional ABJ Conference.

Details about upcoming events are featured in the "Upcoming Events" section of the newsletter on page 4. For a preview of events through June, please see the calendar at the end of the newsletter or visit our website at <http://swe-goldenwest.org/svs/>. Feel free to contact any of the officers listed on the "Officer Roster" on page 7 if you have questions, suggestions or wish to volunteer. I'm also always looking for new ideas and articles for our newsletter. The "Member Corner" section is dedicated to anything you wish to share with other members.

Thank you for being a part of SWE Sac Valley.

All the best for 2012,

Andrea Bergamini  
SWE Sac Valley Newsletter Editor

# REGIONAL SWE NEWS

## National SWE

### Engineers Week

The Society of Women Engineers is a sponsor of Engineers Week. It takes place from February 19th to 25th. Please visit <http://eweek.org> for more information.

More information about National SWE is available at <http://societyofwomenengineers.swe.org/>

## Regions A, B and J

### Conference in Hawaii

The 2012 SWE Regional ABJ Conference will be held February 29th to March 3rd. The SWE University of Hawaii at Manoa Collegiate section and the SWE-Hawaiian Islands Proposed Professional section will be co-hosting the event at the Sheraton Waikiki. More information is available at <http://www.swewestern2012.org/>

## Region A

### San Joaquin Valley

The San Joaquin Valley Professional Section is active. If you live near Stockton, Fresno, or Merced, please visit: <http://swe-goldenwest.org/sjvs/> to learn more.

### Sierra Foothills

Sierra Foothills is our neighboring SWE section. Members of both sections are welcome at many of the other section's events. For more information about the Sierra Foothills Section, please see their new website at <http://swe-goldenwest.org/sfs/>

# NEW MEMBER PROFILES

interviewed by Wendy Cohen

**Laura Doyle** received her BS in civil engineering from Loyola Marymount University in 2003. She came to UC Davis for her MS and PhD, which she received in 2007 and December 2010, respectively. Laura's doctoral work focused on hydrodynamic and water quality modeling in the Delta system. In particular, she developed a 3-dimensional water quality model to investigate low dissolved oxygen (DO) in the Stockton Deep Water Ship Channel (DWSC). As part of her research, Laura conducted field studies to collect data necessary to calibrate the model. Laura's studies found that the alteration of the San Joaquin River in the vicinity of the Port of Stockton, which includes widening and deepening of the channel to allow for the passage of ships, is a major contribution to the water quality problem in the DWSC. The San Joaquin River carries a large source of organic matter, which becomes trapped in the turning basin, becoming a constant source of DO consuming material. Laura is continuing her research on the Delta system modeling, as a post-doc at the UCD John Muir Institute for the Environment. Laura is in charge of a number of 2 and 3 dimensional hydrodynamic and water quality modeling projects on the Delta system and also helps develop graduate courses and mentors graduate students. When asked about hobbies she enjoys, Laura said she had a baby a year ago, right after finishing her PhD, so she doesn't have much spare time. When she does, she enjoys photography, running, yoga and cooking. Laura said she joined SWE because she wants to do more outreach to young girls to encourage them to pursue a technology career. And she's already pursuing that goal by volunteering for the Young Engineers Session in March. Thanks very much, Laura, and welcome to SWE Sac Valley!

**Liana Loutan** received her BS in chemical engineering at UC Davis in June 2010. She started out as an electrical engineering major, but then interned at an energy company where she learned about chemical engineering applications in the energy field. Liana says chemical engineering is a broad field with applications in many industries. A big one is the food and beverage industry, where many of her fellow students ended up. In that industry, chemical engineers design process control protocols for the food and beverages. Liana continues to look for work in her field, and last Fall had a seasonal job working in a winery. She was part of SWE for a couple of years in college. In her spare time, Liana enjoys travel, reading and spending time with her friends. Welcome to SWE Sac Valley, Liana!

**Anne Manuel** has a multi-faceted background. She was in the Air Force for 4 years, from 2003 through 2006, where she received training as a licensed nurse and emergency medical technician (EMT). During these 4 years, she worked as an EMT and medic in a Base Intensive Care Unit **and** attended UC Davis full-time. She worked night shifts at the Base, and when she got off work, she drove to Davis to go to school.

In December 2006, Anne completed her BA in English Literature and her stint in the Air Force. In 2007, she started pursuing a PhD in neuropsychology because she wanted to help people. During this time, she worked as a licensed nurse in a Post Traumatic Stress (PTS) unit. The service members who came there were discharged from the military because the PTS made them too unstable to remain in the field. These patients received the usual therapy and psychiatric help, but Anne noticed something else. She saw that when the patients used technology to create something, or even just played video games, their mental distress was greatly alleviated. She realized there is a correlation amongst people, science, and technology, and she didn't have to choose between a career to help people and a technology career.

Thus, Anne discontinued the PhD program, and in October 2008, started at DeVry University in Elk Grove to pursue a BS in Electronics Engineering. DeVry is a technical college offering numerous fields of study. She said the professors there work in the field more than their counterparts at other universities, and this provides more real life experience. With this degree, which she expects to complete in September 2012, Anne wants to develop technologies that will help people suffering from ailments such as PTS.

Anne never knew that SWE existed before she joined and is interested in our mission and goals. In her spare time, she tutors nursing students and loves playing with her Golden Retriever. Welcome to SWE Sac Valley, Anne!

# UPCOMING EVENTS

## January

### **Joint Section Meeting with Sierra Foothills Section**

When: Thursday, January 26th  
Time: 12:00 – 1:00 pm  
Where: The Old Spaghetti Factory  
12401 Folsom Blvd  
Rancho Cordova

Cost: \$15 includes entree, drink and dessert  
Guest Speaker: Sharon Stiles, Financial Services  
Professional

RSVP: Wendy Cohen at [wcohen@dcn.org](mailto:wcohen@dcn.org) , let her know  
your entree selection by January 20th

Come learn about a topic critical to everyone - how to set and reach financial, investment, and retirement goals. Sharon will answer common questions, such as : “How much will I need to accumulate to live comfortably?” , “How much do I need to put away each month?” and “How can I get my investment dollars to work as hard as I do?”. Members of both Sacramento Valley and Sierra Foothills sections will attend this annual joint meeting, so it’s a great opportunity to catch up and renew friendships. Please see attached flyer at the end of the newsletter for more information.

### **Scholarship Fundraiser Planning Meeting**

When: TBA  
Time: 12:00 – 1:00 pm  
Where: Sacramento Area Sanitation District  
Office  
10060 Goethe Road  
Sacramento  
Contact: Vyomini Pandya, [vyomini21@gmail.com](mailto:vyomini21@gmail.com)

Help organize and share your ideas for our annual Scholarship Fundraiser. If you can't attend in person, a conference line will be available. Contact Vyomini for details.

## February

### **Y.E.S! Planning Meeting**

When: Wednesday, February 1st  
Time: 6:00 pm  
Where: Black & Veatch Office  
10995 Gold Center Dr, Suite 100  
Rancho Cordova  
Contact: Heather Sheridan, [sheridanhm@bv.com](mailto:sheridanhm@bv.com)

This is our last planning meeting before Young Engineer Sessions (Y.E.S!) on March 10th. Volunteers are still needed to lead groups of Girl Scouts. Additional information about is under “Call for Volunteers”, or please attend this meeting.

### **Friday Quarterly Luncheon**

When: Friday, February 10th  
Time: 12:00 – 1:00 pm  
Where: Black Bear Diner  
255 Second Street  
Davis  
Contact: Wendy Cohen, [wcohen@dcn.org](mailto:wcohen@dcn.org)

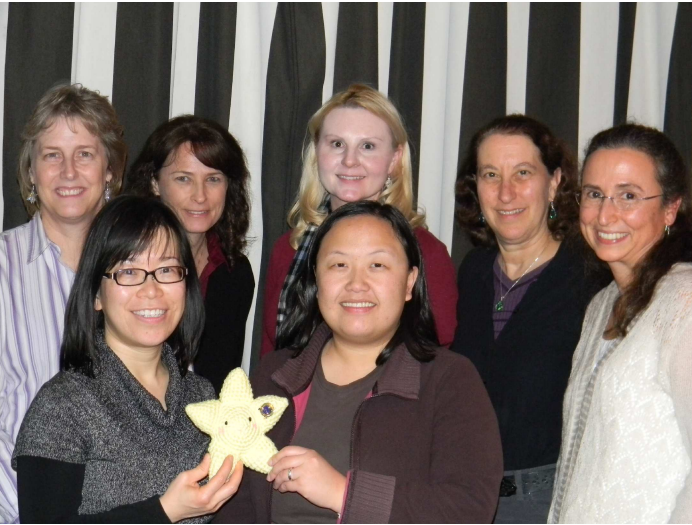
Get away from the office for an hour and come relax and socialize with SWE friends in the Davis area. Even if it's last minute, you're welcome to just show up!

# PAST EVENTS

## 2011 Holiday Social

by Sue Bianchi

On Friday, December 16th, seven SWEsters met at our annual holiday hot spot, Ettore's European Bakery & Restaurant. We enjoyed a great meal from soups, salads & subs to the divine desserts of Europe. We went over a few quick business updates about the Joint Meeting in January, the Young Engineering Session in March, and the Scholarship Fundraiser in May and then on to meeting new friends and catching up with our old friends.



2011 Holiday Social

Back row from left: Theresa Arnold, Elizabeth Bigley, Paula McDonald, Wendy Cohen, Ally Jahn.

Front row from left: Carmen Lee, Sue Bianchi

## Rubicon Brewery Tour

by Vyomini Pandya

We had the pleasure of great company and a unique opportunity to learn about beer brewing operations at the Rubicon Brewery located in downtown Sacramento. Rubicon is one of the oldest breweries in the Sacramento area. Nine SWE members attended the tour. The owner Glynn Philips gave us a technical tour.



Making beer is a very simple process- 1) get the malt ready 2) make wort 3) brew 4) ferment 5) filter, and 6) deliver! Malt is essentially the barley that has been germinated and dried to extract the starch stored in the grains. Once the malt is ready, it is dropped into warm water and then gradually heated to around 75°C in a large cooking vessel called the mash tun. In this mash tun, the grain and heated water mix create a cereal mash to dissolve the starch into the water, transforming it into sugar, mainly maltose. This sugar rich water is then strained through the bottom of the mash and is now called wort. The spent grains from previous steps are filtered out and the wort is ready for brewing to extract color, flavor and aroma. Hops are added in this step to preserve the beer for a longer time and add aroma. At Rubicon these three steps take 9 hours for 10 gallons of beer.



Before fermenting, the wort is cooled via a heat exchanger so that the yeast is not harmed. Fermentation is a metabolic process that generates alcohol and carbon dioxide- both very important in a good beer. The fermentation process can take weeks. Brewers measure specific gravity of the liquid to determine the alcohol content to know when the beer is ready. Once the fermenting process is done, the beer is filtered one last time and cooled before serving. Brewmasters at Rubicon brewed 2000 barrels in 2011. One barrel is about 31 gallons, so 2000 barrels have 62,000 gallons of beer! Best wishes to Glynn and Rubicon Brewery, and thanks for such a great tour!

# CALL FOR VOLUNTEERS

## Speaker's Bureau

Tasha Perreault is putting together a list of volunteers who are willing to speak in elementary, middle school and high school classes. This is an excellent and direct way to have an influence on a young person's life! Tasha can be contacted at [tasha.perreault@gmail.com](mailto:tasha.perreault@gmail.com).

Please let Tasha know if you are willing to speak in classes, whether you prefer a certain age group or geographic area in the Sacramento region, how often you could speak (i.e. once a week, twice a month, etc), and your field of engineering. Once there is a list of willing speakers to fill requests, Tasha will send letters to schools to tell them of our availability. We'd like to possibly do something in conjunction with National Engineers Week, which is February 19-25.

When speaking in the classroom, we are presenting ourselves as role models to show both girls and boys that there are women engineers who help society in many ways with their knowledge and expertise. We usually tell the kids about how we became interested in engineering, our academic path to our career, what we do and what it's like to work as an engineer, and balancing career and family. A primary message is that any one of these kids can become an engineer or scientist, and thus work to make the world a better place, but they must continue taking math and science classes throughout their schooling.

## Young Engineer Sessions (Y.E.S!)

Y.E.S! is a hands-on engineering event for 6th to 8th grade Girl Scouts and will take place on March 10, 2012. SWE members guide the girls through four modules on math, science and engineering topics, and the girls earn a scout badge. We need six additional volunteers; four to accompany each group of scouts on the event day, one to lead a module and another to assist the module leader. All supplies and training are provided. Please contact Heather at [sheridanhm@bv.com](mailto:sheridanhm@bv.com) for more information or to volunteer.

## Scholarship Fundraising Committee

With tuition rates on the rise and high unemployment, it is a crucial time for us to support women pursuing engineering degrees. The Scholarship Fundraising Committee is now being formed to raise money for local collegiate women in engineering and to organize the Section's Annual Fundraiser. More detailed descriptions are available at the end of the newsletter. Position duties begin this month and run through May. Please consider joining the committee to support efforts to raise funds and offer scholarships to more recipients than last year.

**Committee Chair** - Manage the committee and the event. Update President with progress.

**Sales Executive** - Assist the committee in advertising and promoting the event. Update Chair with progress.

**Event Manager** - Assist the committee in selling admission and raffle tickets for the event. Update Chair with progress.

If interested in a position, or volunteering in any capacity, please contact Vyomini Pandya at [vyomini21@gmail.com](mailto:vyomini21@gmail.com)

## Officer Positions Open Fiscal Year 2011-2012

Please consider volunteering for one of the following unfilled officer positions.

**Vice President** - Assist Section President in coordinating and planning events, meetings, and outreach efforts.

**Collegiate Coordination Committee Chair** - Remain current with the status of the Section's collegiate chapters and coordinate any outreach efforts requested by the collegiate chapters.

For detailed information about the duties of any of the officer positions, please contact Vyomini Pandya at [vyomini21@gmail.com](mailto:vyomini21@gmail.com).

## MEMBER CORNER

If you have an article, poem, technical paper, book, tool or Sacramento Valley hot spot you would like to share with everyone, please send it to the newsletter editor for inclusion in the next bi-monthly issue!

# OFFICER ROSTER

**President**      ***Vyomini Pandya***  
(916) 876-6677  
[vyomini21@gmail.com](mailto:vyomini21@gmail.com)

**Vice President**      ***OPEN***  
Contact Vyomini Pandya

**Treasurer**      ***Liz Raley***  
(916) 638-3058  
[elizabethgraley@att.net](mailto:elizabethgraley@att.net)

**Section Rep**      ***Paula McDonald***  
(916) 832-0019  
[paulalmcdonald@sbcglobal.net](mailto:paulalmcdonald@sbcglobal.net)

**CSUS Counselor**      ***Sue Bianchi***  
(916) 876-6383  
[bianchis@sacsewer.com](mailto:bianchis@sacsewer.com)

**UCD Counselor**      ***Linda N. Finley***  
(916) 557-7411  
[Linda.N.finley@usace.army.mil](mailto:Linda.N.finley@usace.army.mil)

**Collegiate Coordination Committee Chair**      ***OPEN***  
Contact Vyomini Pandya

**Scholarship Fundraising Chair**      ***OPEN***  
Contact Vyomini Pandya

**Scholarship Committee Chair**      ***Erin Marquis***  
[engineeringerin@gmail.com](mailto:engineeringerin@gmail.com)

**Speaker's Bureau**      ***Latasha Perreault***  
[tasha.perreault@gmail.com](mailto:tasha.perreault@gmail.com)

**Membership Chair**      ***Wendy Cohen***  
(530) 756-7518  
[wcohen@dcn.org](mailto:wcohen@dcn.org)

**Newsletter Editor**      ***Andrea Bergamini***  
[andrea.g.bergamini@gmail.com](mailto:andrea.g.bergamini@gmail.com)

**Web Site Administrator**      ***Alice Ames Jahn***  
[alicejahn@alumni.ucdavis.edu](mailto:alicejahn@alumni.ucdavis.edu)

**Y.E.S! Chair**      ***Heather Sheridan***  
(209) 986-5656  
[sheridanhm@bv.com](mailto:sheridanhm@bv.com)

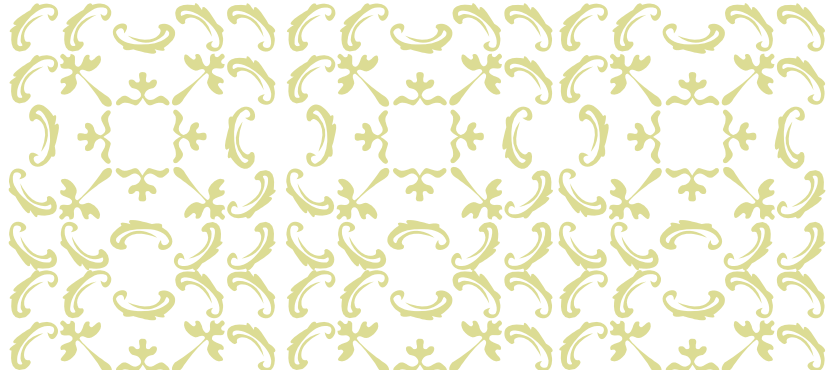
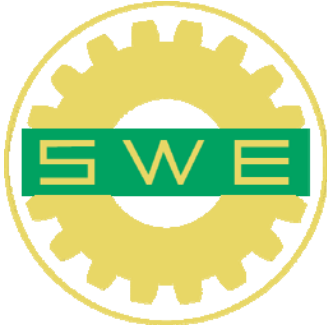
## Annual Business & Calendar Events

Fiscal Year 2011 – 2012

Date	Event	Time/Location	Coordinator
January 2012	Scholarship Fundraiser Planning Meeting	SASD Office 10060 Goethe Road Sacramento	Vyomini Pandya <a href="mailto:vyomini21@gmail.com">vyomini21@gmail.com</a>
January 26, 2012	Joint Meeting w/Sierra Foothills Section	The Old Spaghetti Factory, 12401 Folsom Blvd Rancho Cordova	Wendy Cohen <a href="mailto:wcohen@dcn.org">wcohen@dcn.org</a>
February 1, 2012	Y.E.S! Planning Meeting	Black & Veatch Office 10995 Gold Center Dr, Suite 100, Rancho Cordova, 6 pm	Heather Sheridan <a href="mailto:sheridanhm@bv.com">sheridanhm@bv.com</a>
February 10, 2012	Quarterly Friday Lunch	Black Bear Diner 255 Second Street Davis	Wendy Cohen <a href="mailto:wcohen@dcn.org">wcohen@dcn.org</a>
February 10, 2012	Newsletter Articles DUE	Send week of February 22, 2011	Andrea Bergamini <a href="mailto:andrea.g.bergamini@gmail.com">andrea.g.bergamini@gmail.com</a>
February 2012	ABJ Spring Senate Meeting	TBD	TBD
February 19-25, 2012	Engineers Week	Nationwide	Please visit <a href="http://eweek.org">http://eweek.org</a>
February 29 - March 3, 2012	Region ABJ Conference	Sheraton Waikiki Oahu, Hawaii	Please visit <a href="http://www.swewestern2012.org/">http://www.swewestern2012.org/</a>
March 2012	Scholarship Fundraiser Planning Meeting	SASD Office 10060 Goethe Road Sacramento CA 95827	Vyomini Pandya <a href="mailto:vyomini21@gmail.com">vyomini21@gmail.com</a>
March 2012	2011 Scholarship Application DUE	SWE SVS Scholarship P.O. Box 924 Rancho Cordova, CA 95741	Erin Marquis <a href="mailto:engineeringerin@gmail.com">engineeringerin@gmail.com</a>
March 10, 2012	Y.E.S! with the Girl Scouts	Sacramento 8 am – 3 pm	Heather Sheridan <a href="mailto:sheridanhm@bv.com">sheridanhm@bv.com</a>
April 2012	Send out Fiscal Year 2011-2012 Officer Ballots	SWE SVS P.O. Box 924 Rancho Cordova, CA 95741	Wendy Cohen <a href="mailto:wcohen@dcn.org">wcohen@dcn.org</a>
April 13, 2012	Member Bring a Member Luncheon	Downtown 6 pm – 8 pm	Vyomini Pandya <a href="mailto:vyomini21@gmail.com">vyomini21@gmail.com</a>
April 13, 2012	Newsletter Articles DUE	Send week of April 19, 2011	Andrea Bergamini <a href="mailto:andrea.g.bergamini@gmail.com">andrea.g.bergamini@gmail.com</a>

April 2012	Business Meeting	SASD Office 10060 Goethe Rd Sacramento, CA	Vyomini Pandya <a href="mailto:vyomini21@gmail.com">vyomini21@gmail.com</a>
April 28, 2012	Girl Scouts 100 <sup>th</sup> Celebration	Cal Expo	Vyomini Pandya <a href="mailto:vyomini21@gmail.com">vyomini21@gmail.com</a>
May 3, 2012	Scholarship Fundraiser	SASD Office 10060 Goethe Rd Sacramento, CA	Vyomini Pandya <a href="mailto:vyomini21@gmail.com">vyomini21@gmail.com</a>
May 11, 2012	Quarterly Friday Lunch	Dos Coyotes 8519 Bond Road #100 Elk Grove 11:30 am – 12:30 pm	Sue Bianchi <a href="mailto:bianchis@sacsewer.com">bianchis@sacsewer.com</a>
May - June 2012	Region A Awards Banquet	TBA	TBA
June 8, 2012	Newsletter Articles DUE	Send week of June 21, 2011	Andrea Bergamini <a href="mailto:andrea.g.bergamini@gmail.com">andrea.g.bergamini@gmail.com</a>
June 2012	Vineyard Water Treatment Plant or FRWA intake structure	Sacramento, CA	Vyomini Pandya <a href="mailto:vyomini21@gmail.com">vyomini21@gmail.com</a>
June 2012	Planning Meeting	TBA	Vyomini Pandya <a href="mailto:vyomini21@gmail.com">vyomini21@gmail.com</a>

*Note: TBA/TBD – To be Announced / To be Determined*



## *Society of Women Engineers*

# *Joint Section Meeting*

*Date:* Thursday, 1/26/2012

*Time:* 6:00 pm

*Location:*

Old Spaghetti Factory  
12401 Folsom Blvd  
Rancho Cordova

*Cost:* \$15 per person

*Resup with Entree:*

Wendy Cohen  
[wcohen@dcn.org](mailto:wcohen@dcn.org)  
By Friday, 1/20/2012

*Menu Choices:*

### Entrees

1. Fettuccine Alfredo
2. Spinach & Cheese Ravioli
3. Spaghetti w/ any sauce  
(Mizithra cheese & brown butter,  
Mushroom, Marinara, White Clam,  
Meat Sauce)

Includes drinks (milk, ice tea,  
hot tea or coffee) and dessert  
(vanilla or spumoni ice cream).

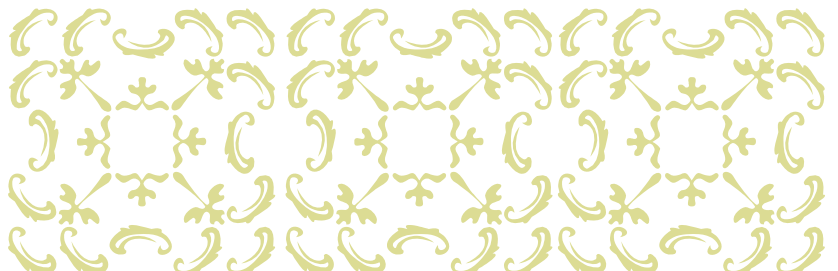
Please note any dietary needs.

## **Investing for the Future: "How-To" and "When-To" Strategies**

Guest Speaker: Sharon Stiles

This session is geared specifically to those of us in the "accumulation" phase of life. A realistic overview of how to set and reach financial, investment, and retirement goals is the focus. You will get answers to some of the most commonly asked questions such as: "How much will I need to accumulate to live comfortably?" "How much do I need to put away each month?" And "How can I get my investment dollars to work as hard as I do?" Also included in this discussion is specific information regarding the balance and rebalancing of retirement holdings, especially important in turbulent economic times. We have all heard the time-honored philosophy "buy low, sell high." In this presentation, you will learn how to do just that, simply and easily.

*Sharon is a financial services professional with Key Concepts Financial and Insurance Services. She is an "educator" in her field and focuses primarily on teaching her audiences a variety of concepts designed to maximize the benefits of every dollar invested, without her clients having to take unnecessary risk.*



For the Sacramento Valley Section and the Sierra Foothills Section

Note: By registering for the event, you are obligated to pay your registration fees unless you notify the SVS section prior to the deadline of Jan. 20, 2012.