Welcome Back!!
Fall has come again and it’s time to shake off the summer daze and get right back into another busy, yet fun quarter!

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CPP Women in Engineering  2015 Graduation Ceremony
Women in Engineering congratulates the outstanding 2015 female graduating class. After rigorous workloads, late nights, and immense dedication these women move on to bright adventures. One in every 14 engineers in California is a Cal Poly Pomona graduate, and these women are that! Top row (left to right): Bianca Argueta, Melissa Troutt, Amanda Garcia, Elizabeth Romo, Nicole Guerena, Melissa Hilsabeck, Holli Rosdail; Bottom Row (left to right): Tasnia Ibtesam Ponkri, Danielle Noriega, Rashonda Edwards, Samantha Hong, Erin Mascarinis, Hadasa Reyes, Abigail Medenilla

Mark your calendars!
- October 15  Engineering Club Welcome Fair
- October 23  Resume Building Workshop
- November 3  WE Chat
- November 13  WE Ambassador Quarterly Meeting
- November 13  WE Chat
- November 17  WE Chat
- November 20  WE Study Session
- November 26-27  Happy Thanksgiving!
- December 14 - Jan 1  Winter Break
WE Chats: Provide the opportunity for students to connect with female faculty from their respective departments and learn about career paths, challenges, successes, and advice on how to become a well-rounded engineer.

WE Talks: Alumnae are invited to speak with the female student engineers, offering tools for success from educational opportunities to professional development.

WE Socials: Enjoy interactive community engagement days for ambassadors to make lasting friendships and memories.

WE Outreach Events: Participate in various outreach opportunities to influence the next generation to pursue STEM careers and lead the future of engineering. Stimulate minds by conducting engineering activities these young girls find inspirational and fun.

WE Study Sessions: Study sessions with light snacks will be held once per quarter to provide study groups for ambassadors to excel academically. Being under heavy course loads in engineering, it is important for ambassadors to have access to a study area.

END OF THE YEAR GET TOGETHER

Be sure to get involved this quarter to earn points towards the End of the Year Get Together. Enjoy great laughs, friendships, and lasting memories. The get together includes lunch, fun games, and relaxation with unlimited ice-cream! The top ambassadors will receive a prize. You won’t want to miss.

How it works

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<thead>
<tr>
<th>Event</th>
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<tr>
<td>WE Chats</td>
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<td>WE Talks</td>
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<td>WE Socials</td>
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<td>WE Study Sessions</td>
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<td>WE Training &amp; Volunteering</td>
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Good times come and go, but memories last forever...
On February 23, 2015 about 100 middle school girls attended the first annual Introduce a Girl to Engineering Day. The attendees came from Project Lead The Way schools aimed towards improving the number of females in engineering. The following activities with simple electrical, mechanical, and chemical aspects were introduced to the girls: blinky bug, roller coaster, and handmade ice cream.

On March 5, 2015 the second annual E-Girl event was held in collaboration with Dr. Monica Palomo’s EGR299S Service Learning class. Mechanical, civil, and electrical activities challenged the girls during the event. A Lego-house, water pump, and wire-maze all came together to demonstrate how home appliances run.

Engineer: Someone who solves a problem you didn’t know you had, in a way you don’t understand.
How did you come across this opportunity?
When I took Operations Research, Dr. Shokoufeh Mirzaei presented an opportunity to perform research at the Lawrence Berkeley National Lab to the class. After showing interest, I submitted a resume and an application.

What research are you conducting?
When a protein misfolds, it causes neurodegenerative diseases such as Alzheimer’s and Parkinson’s disease. The research consisted of acquiring an efficient and effective scoring function to predict protein folding. Therefore, if one is able to come up with an effective scoring function, it can be used alongside experimental methods for application in the biomedical field. My specific task was to take protein models submitted by scientists across the nation through The Critical Assessment of Protein Structure Prediction (CASP) and WeFold websites, and run them through a series of tests ultimately producing features for each protein model. These features created a dataset, which was then inputted into the scoring function. With the use of supercomputers at the National Energy Research Scientific Computing Center (NERSC), I worked with over one million protein models.

Who else is involved in this research?
My team was comprised of seven people. I worked with the guidance of Dr. Shokoufeh Mirzaei and our mentor Dr. Silvia Crivelli from the Lawrence Berkeley National Lab. The other three Cal Poly Pomona Industrial Engineering students were Vivian Loi, Chester Carlson, and Natalia Azoqa. I was able to meet and work with Joshua Pritchett, a Computer Science student from the University of Alabama at Birmingham.

What have you enjoyed most about this experience?
I enjoyed learning about all of the tasks supercomputers can accomplish. It was interesting to learn about the current research at National Energy Research Scientific Computing Center. NERSC aids research in fields such as: astrophysics, engineering science, and environmental science, just to name a few. I also enjoyed stepping outside of my comfort zone and learning about computational approaches to a problem. I am confident that the skills I acquired during my summer research internship will be useful in the future when I plan to earn my master’s degree.

Often we hear from students who are uninformed of how to become involved in undergraduate research and little known fact, we have an office which does just that. It is called the Office of Undergraduate Research, and it is located in 9-258. You can stop by Monday through Friday from 9 AM to 5 PM or visit their website at cpp.edu/~our-cpp/. Their website is filled with information on how to get started with research on campus, applications to existing programs, funding for your research, and information about multiple conferences of research currently taking place at Cal Poly Pomona. You can participate in undergraduate research during the school year or during the summer here at Cal Poly Pomona or across the country at various different colleges.

Website for the Office of Undergraduate Research: https://www.cpp.edu/~our-cpp/
**GHADA GAD**  
**PH.D. CIVIL ENGINEERING: CONSTRUCTION**  
**B.S., M.S. CONSTRUCTION ENGINEERING**

Dr. Ghada Gad is one of a few new faculty members in the Civil Engineering Department. After completing her undergraduate and master’s degrees in Construction Engineering from the American University in Cairo in Egypt, Gad moved to the US in 2009 to attend Iowa State University for her Doctorate in Civil Engineering, with an emphasis in construction. Her masters research was on construction materials (self-healing concrete), while her PhD research was geared towards construction management where she studied the effect of risk and social factors, such as trust and culture, on dispute resolution in international contracts. During her Masters, Gad worked in a Bechtel subsidiary in Egypt in the procurement and contracts department. One of her current hobbies is teaching her two boys construction engineering by playing with Legos after school.

**ANA LAURA GUERRERO**

**PH.D. BIOENGINEERING**  
**B.S., M.S. INDUSTRIAL ENGINEERING**

Dr. Ana Laura Guerrero is a new faculty member in the Industrial and Manufacturing Engineering Department. With both her bachelors and master’s degrees in Industrial Engineering, Guerrero attended UC Riverside to get a Doctorate in Bioengineering. Guerrero worked at Delphi Automotive for four years during her education and has done research with breast cancer and breast milk. Ana is the former president of Association for Women in Science at her school's chapter and is a strong promoter of women in STEM. Growing up, Guerrero was constantly around manufacturing since her hometown was an industrial city and her dad worked in the automotive industry. Now she enjoys traveling, spending time on the beach, and reading thrillers and fiction books. One of her favorite books at the moment is “The Count of Monte Cristo,” by Alexandre.

**NICOLE WAGNER**

**M.S., PH.D. MECHANICAL ENGINEERING**  
**B.S. CHEMISTRY**

Dr. Nicole Wagner is a new faculty member in the Industrial and Manufacturing Engineering Department. Dr. Wagner received her bachelor’s degree in Chemistry from SUNY at Stony Brook, after which she went on to study Mechanical Engineering and received both her master’s and doctoral degrees from the University of Minnesota. During her graduate studies, Dr. Wagner conducted research on wear-resistant, nano-structured ceramic films. After graduation, Dr. Wagner took the opportunity to work at Intel Corporation as a process engineer and 3M Company as a research engineer. Dr. Wagner understands the importance of having confidence in one’s technical ideas when working as a women in STEM, in both industry and academia.
A frog is at the bottom of a 30 meter well. Each day he summons enough energy for one 3 meter leap up the well. Exhausted, he then hangs there for the rest of the day. At night, while he is asleep, he slips 2 meters backwards. How many days does it take him to escape from the well?

Note: Assume after the first leap that his hind legs are exactly three meters up the well. His hind legs must clear the well for him to escape.

Answer: Each day he makes it up another meter, and then on the twenty-seventh day he can leap three meters and climb out.

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**SCHOLARSHIP OPPORTUNITIES**

The **Office of Financial Aid & Scholarship** website contains multiple links leading to scholarships that are endorsed by Cal Poly Pomona including department scholarships, internal Cal Poly Pomona scholarships, and external scholarship opportunities. Each of these are frequently updated to allow students to apply to as many as possible to make paying for college easier. There are a wide range of scholarships focusing on academics, community service, financial need, and diversity. Many students feel they will not receive scholarships because they see themselves as unqualified. However, there are many scholarships that remain unapplied to, leaving the money unclaimed. It is highly recommended that you apply to scholarships throughout the school year.

Cal Poly Pomona’s Scholarship Website:  
http://www.cpp.edu/~financial-aid/types-of-aid/scholarships/

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**We want to hear from you!**

As we plan the 2015-16 school year, we want to know your ideas on what you would like to see for the coming year. This program is meant for your success, and we want to make that happen.

Please email your suggestions to: cpp_we@cpp.edu

Thank you!

**Brooke, Shannon, & Teresa**

CPP Women in Engineering  
Student Coordinators

“If you don’t go after what you want, you’ll never have it. If you don’t ask, the answer is always no. If you don’t step forward, you’re always in the same place.”

-Nora Roberts