The BRAE Weekly

October 21, 2014

BRAE 433

On October 10-12th , Dr. Styles and his BRAE 433 Concrete Design class took a trip up to Cal Poly's Swanton Pacific Ranch to build a pair concrete structures to help the ranch improve their facilities and to give the students hands-on experience working with concrete.

The two student-lead teams were each in charge of designing, planning, and building a concrete structure in two days. The first team lead by Trevor Sa, designed a 32 ft. x 12 ft. concrete slab to support a mill saw that would improve the efficiency of the ranch's lumber production.

Story continued on page 2.

Student Opportunities	College & BRAE News	October Calendar
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The construction of this slab required building the formwork from the bottom up, and using surveying equipment to give the slab a slight downward slope. The second team, lead by Luis Vazquez, was in charge of cutting into an existing slab and installing a larger base to support a jib crane, which would help the ranch's railroad workers move heavy objects in and out of the carts more easily.

After successfully pouring concrete Saturday afternoon, and adding some finishing touches on Sunday morning, the railroad crew generously took the students on a trip along the ranch in the train. The students groups gained great hands-on experience and worked successfully in teams to execute their designs. The students would like to thank Swanton Ranch for their hospitality.

Written by: Luis Vazquez
Courtesy photos from: Luis Vazquez and Dr. Styles

P3: People, Prosperity and the Planet Student Design Competition for Sustainability Closes December 16th, 2014

EPA's P3 Program is a unique college competition for designing solutions for a sustainable future. P3 offers students quality hands-on experience that brings their classroom learning to life.

The competition has two phases. For the first phase of the competition, teams are awarded a $15,000 grant to develop their idea. They bring the design to the National Sustainable Design Expo in Washington, D.C. to compete for the P3 Award and a grant of $90,000 to take their design to real world application.

Student Opportunities

CWS, Inc & Eco-Shell, Inc, Crain Orchards, Inc.

Project Design Specialist (PDS)

Accountability Objective and Areas of Responsibility:
The Project Design Specialist (PDS) is responsible for working with the Project Manager, Monty Baker, to develop computer assisted drawings for specific projects. In addition, the PDS will provide technical drawings and fabrication support for the shop operation for projects requiring fabrication. Time will be split between Crain Walnut Shelling, Inc., EcoShell, and Crain Orchards Inc., depending on the priorities of each project.

See **page 4** for the Complete Job Listing.

Contact Info:
Monty Baker
Project Support Specialist
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(530) 529-1585 ext. 2044

The GREEN Program

The GREEN Program is the premiere experiential learning program for future clean energy and sustainability leaders. The short-term immersion programs take students on adventures to the epicenters of clean tech, sustainability, and innovative industries. They are now accepting Applications. http://thegreenprogram.com/apply/

See more information on **page 5**.

JOB DESCRIPTION
CWS, Inc & Eco-Shell, Inc, Crain Orchards, Inc.
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All work, ideas and drawings are to remain the property of employer and shall be kept confidential.

The Project Design Specialist (PDS) will prepare drawings for each project as assigned and continue to provide improved and/or modified version(s) of drawings until a final version is approved by appropriate parties involved in each project including the HACCP team when applicable.

Obtain and maintain HACCP certification and required training or continuing education courses. Utilize HACCP principles with regards to projects that change or upgrade plant design and processes. Provide continued involvement in HACCP program annual reviews to optimize continuous improvement(s) in the program. In addition, PDS will have future involvement in other food safety programs and certifications such as BRC.

Other responsibilities include but not limited to:

1. Be on call for support of operations including harvest each year.
2. Develop project ideas for Crain Walnut Shelling, Inc and Eco-Shell, Inc.
    a. Attend shows, expos and conferences as necessary to gather information from surrounding industries, suppliers and competitors
    b. Continue to learn and gain knowledge of design programs and software that may allow more efficient work output

Execution of Responsibilities Include:

- Solid Works and AutoCad detailing of projects to create drawings for bid packages to vendors. Primarily using Solid Works.
- Effective time management and prioritization of work
- Maintaining project files or computer assisted drawings on the company file server while restricting access to authorized users.
- Maintaining information / materials in an organized and efficient manner
- Assistance in the development of manufacturing and installation timelines
- Be involved in project reviews and spend time with operators to gain knowledge of equipment use/function.

The Project Design Specialist (PDS) reports directly to the Project Manager. All job functions shall be performed per Company Standard Operating Procedures and Employee Handbook. Any deviations shall be reported and approved by the supervisor.

I acknowledge and accept the job description as outlined above.

Employee Signature: _____ **Date:** _____

Student Opportunity from page 3

The GREEN Program - Now accepting Applications

The GREEN Program is the premiere experiential learning program for future clean energy and sustainability leaders. The short-term immersion programs take students on adventures to the epicenters of clean tech, sustainability, and innovative industries.

- Engage in hands-on, experiential education with industry experts and professionals
- Behind the scenes access to innovative clean energy facilities and sustainability projects
- Supercharge your resume with a global perspective and unique cultural experience
- Network and develop relationships with powerhouse student leaders and professionals
- Bridge the gap between traditional textbook learning and real-time industry insight
- Participate on world-class bucket list adventure excursions
- Earn an academic transcript during our 8-10 day programs

Take a step out of the classroom and experience the clean energy and sustainability industries, while having the adventure of your life with The GREEN Program.

8-Day Winter & Spring: Renewable Energy + Sustainability + Extreme Climate OR 10-Day Summer: Renewable Energy + Sustainability

Experience:

- World-class educational environment
- Student-driven passion Capstone Projects
- The epicenter of renewable energy
- Bucket list adventure excursions
- Transferable academic transcript issued by Iceland School of Energy - Reykjavik U

10-Day Winter: Water Resource Management + Sustainable Practices

Experience:

- Ancient Inca technologies and wonders of the world - Machu Picchu
- The implementation of water sanitation technology in the third world
- Immersive and historically rich Inca culture
- Peru's natural resource policy
- Transferable academic transcript issued by Universidad San Ignacio de Loyola

9-Day Summer: Sustainable Design + Urban Regeneration + Thought Leadership

Experience:

- The technologies behind sustainable design and urban regeneration
- Philadelphia's Green Building and energy efficiency case studies
- The crossroads of sustainable design and implementation
- The fusion of global markets and sustainability
- Transferable academic transcript issued by Philadelphia University

Contact Info:
Alex Tanenbaum
Partnerships & Outreach
Alex@theGREENprogram.com
2158210935 | theGREENprogram.com

Society of Women Engineers

Name: *Back to School Test Bank Drive*
Date: 9/29-10/17
Location: SWE Office (Bonderson 212)

Description: Took classes over the summer? Plan on throwing away your midterm and final exam papers? Instead of throwing them away turn them into the SWE office and earn points for some SWE swag!
-Questions? Contact Nimisha Patel, npatel25@calpoly.edu

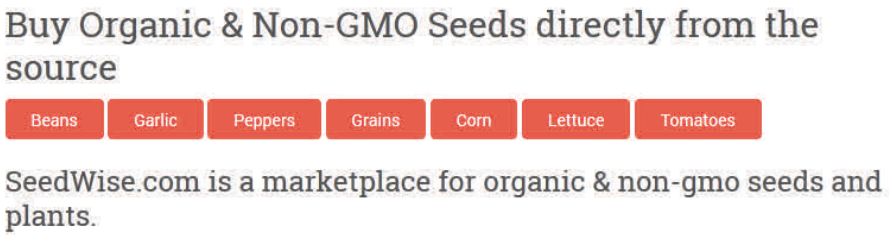
Name: *Girl Scout Day*
Date: 10/18
Time: 8:45 AM -12:45 PM
Location: Cal Poly

Description: Hey everyone! We need volunteers for Girl Scout Day! The event will take place on Saturday, October 18th from 8:30 AM to 1:00 PM. We need volunteers to help with check in, lead the engineering activities, serve as a group leader for the troops, and assist with clean up! If interested, please fill out the form below: (https://docs.google.com/forms/d/1_m4AHE8_gM2ZzqTWXC0z6Sf1y-m3rqc_QcluKTzV41Y/viewform)
-Questions? Contact Kristina Mai, klmai@calpoly.edu

College News

Seed Wise

Check out this new platform that was created by a local web developer that allows people to purchase organic non-gmo seed's directly from the farmer. The website is Seedwise.com



Dr. Samantha Gill

Did you know that one of our very own BRAE professors also works for the Natural Resources Management & Environmental Sciences Department? Meet the vastly involved Professor, Dr. Samantha Gill. Dr. Gill has been a part of Cal Poly since 1997. She obtained her Bachelor of Science Degree from Humboldt State in Forestry and Math and got her Doctorate Degree in Forest Biometrics at UC Berkley.

At Cal Poly she teaches Forest Resources, Forest Mensuration, Applications of GIS in Natural Resources, Computers and Surveying. Alongside teaching, she still has time to research and be a club advisor for the Cal Poly Logging Team. Her research interests include Forest Measurements and Modeling Application, specializing in Forest Biometrics. Lately, she was a part of an urban and statewide forest inventory project. They surveyed 695 plots. That's a lot of trees!

Away from the office, Dr. Gill enjoys bicycling, needle pointing, rubber stamping and volunteering at a local Christian Church working with a children's program called Awana's. This professor can do it all!

To learn more: Stop by her office hours on Monday from 11-12, Wednesday 10-12, and Thursday 1-3pm.

Faculty Highlight

POSTER PICTURES

With the new school year upon us, it's time to update the BRAE Poster in the Lobby!

Want a new picture displayed?

Email me an appropriate picture and we would be happy to include it.

Here are a few photo requirements:

- ◊ Clear resolution
- ◊ Individual picture (not cropped from a group photo)
- ◊ Solid Background

Email to: amoore21@calpoly.edu
Thanks!

BRAE News

- ◊ **The Central Coast Chapter of the California Land Surveyors Association** is having State's President Elect Jay Seymour at their October Meeting on Wednesday October 22. More information can be found at http://www.californiasurveyors.org/chapter_nl.asp?ch=13

- ◊ The department's **Industry Advisory Council** (IAC) will meet on Thursday October 23. The meeting will start off with a fine lunch of burgers from the Thursday barbecue and then they will meet with staff and faculty as well as tour the facilities. The IAC is how the department learns what the industries and professions expect from our graduates. Please feel free to introduce yourself to any of the Council members as you see them walk around the facilities or while they are having lunch.

- ◊ **ASABE Robotics Club Meeting**, 6:00 PM, 10/22/2014, 122– Building 8

MONTH of OCTOBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13 AES Intramural Flag Football Game 7:30pm	14 TODAY CAFES Student Council Meeting AES,ASABE, SMB Officer Meeting 6pm	15	16 AES Weekly BBQ	17 CAFES Fall Preview (www.cafes.calpoly.edu/fall-preview)	18
19	20 AES Intramural Flag Football Game 7:30pm	21 TODAY CAFES Student Council Meeting AES Intramural Softball Game 8:30pm AES,ASABE, SMB Officer Meeting 6pm	22 BRAE 236 Field Trip to Monterey County Central Coast Chapter of the California Land Surveyors Association ASABE Robotics Club Meeting, 6:00 PM, 122-BLDG 8	23 AES Weekly BBQ BRAE Advisory Council Meeting Farm City Night in Downtown SLO 5:30-9:00pm	24 Cal Poly Parents and Families Day from 2pm-4pm	25 Tractor Pull in Redding
26 ABET site visit by Program Evaluation Dr. Sue Nokes	27 ABET site visit by Dr. Sue Nokes Selected Students meet with Program Evaluation AES Intramural Flag Football Game 7:30pm	28. ABET site visit by Dr. Sue Nokes CAFES Student Council Meeting Registration for Fall Sports Day Due AES Intramural Softball Game 8:30pm Tractor Pull Meeting 7pm, Building 8-122 AES,ASABE, SMB Officer Meeting 6pm	29 AES 2nd General Meeting– Lab 4	30 AES Weekly BBQ	31	