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CSULB Sustainability

Highlighting sustainability efforts at California State University, Long Beach

Highlights of 2015 CHESC!

Reflecting on What We Learned at CHESC

The decision to attend any conference is motivated by the desire to gain new insights, learn about the latest innovations, and make connections with leaders in the field.

It was these opportunities that motivated the more than twenty CSULB students, faculty and staff that attended this year's California Higher Education Sustainability Conference (CHESC) hosted by San Francisco State University. That, and the fact that we were also there to receive three best practice awards!

CHESC, which has been held annually at universities

New This Fall! Free Campus Shuttle!

Now picking up at 3 convenient locations:

- Stearns/Los Coyotes
- Ferro/Los Coyotes,
- Garford/Park

Click here for more info!

Need A Capstone?

Take ES&P 392: Climate Action and Neutrality at CSULB

CSULB is offering a brand new class in Fall 2015, and it is open to students of all majors and

presentations, inspiring keynote addresses, and lots of networking opportunities. Highlights from this year's event were the rousing keynote by American environmental advocate, civil rights activist, and attorney, Van Jones, the Student Convergence, the Sustainability Officers' Workshop, and the awards ceremony, during which CSULB was the most recognized CSU campus.

Members of the CSULB delegation are planning to meet in the coming weeks to share what they learned at the conference and discuss how to utilize those lessons to advance CSULB's own sustainability goals.

Check out the video above for a glimpse of the CSULB team's time at the conference.

Check Out This Water Action Plan Video!

Check out this short video to learn about CSULB's Water Action Plan, one of the projects for which the school was awarded an honorable mention in the water conservation best practices category!

RESERVE YOUR SPOT TODAY FOR THE FACULTY GREEN THREAD WORKSHOP!

Capstone that focuses on CSULBs efforts to achieve climate neutrality and sustainability through service learning assignments. Students will work with staff, faculty, and community partners, and will develop important skills through hands-on experience. The class is currently open, so if you want to get involved, consider taking the class!

The Green Thread Workshop, which is open to all faculty, will be held Friday, September 11, 2015! In this workshop, faculty will learn how to connect sustainability issues to core concepts in their own disciplines and connect with engaged faculty across disciplines to enhance student understanding and awareness.

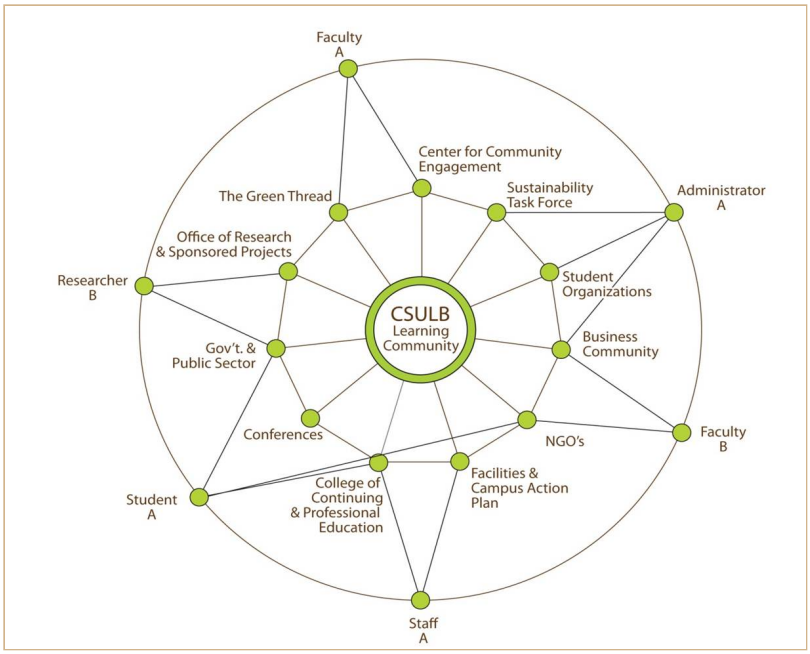
SPACE IS LIMITED!
RSVP to sustainability@csulb.edu before Friday, September 4, 2015.

How Sustainable is CSULB?

Efforts are underway to evaluate and measure just how sustainable CSULB is according to the Sustainability Tracking, Assessment & Rating System™ (STARS®).

STARS is a transparent, self-reporting framework that colleges and universities can use to measure their sustainability performance in the areas of academics, engagement, operations, planning and administration. STARS is designed to help institutions understand how well they are doing at achieving the

The Learning Community Team Works to Bring Sustainability to Life



In April 2013, a workshop was held to explore the idea of developing a sustainability-focused learning community at

way to track their progress over time and compare their performance to other universities.

Stay tuned for more on our progress in the coming months!

stars

YouTube

Check out our new Sustainability YouTube page here!

Want to get involved? Try these resources!

- Sustain U
- Sustainability Task Force Working Groups
- Environmental Science and Policy Club
- Students for Sustainable Health
- Geoscience/Geography Student Association
- Grow Beach
- CSULB PowerSave Campus
- CSULB Engineers for a Sustainable World
- CSULB Center for Community

regularly to collaborate. One of the goals of the sustainability-focused learning community is to help prepare the next generation of leaders to face the challenges of integrating sustainability into their decisions, both as professionals or in their everyday life choices.

Since the workshop was held, an interdisciplinary team of faculty who make up the Sustainability Learning Community work group has taken steps to bring CSULB's learning community to life. Current efforts include initiating the production of several short videos that will highlight campus sustainability activities, working to develop a sustainability mobile app that will be integrated into the existing CSULB app, and presenting the white paper entitled "Sustainability: Our Community as a Living Lab" at this year's California Higher Education Sustainability Conference (CHESC).

The group is also planning its first seminar presentation for the fall semester on the topic of "Sustainable Aquaculture." The topic was chosen because of its relevance to our region, as there are an increasing number of activities planned to develop the fisheries off our coast in the Southern California Bight. The topic also has implications for the local economy, small and large businesses, the environment, tourism, and quality of life for residents – all important elements of sustainability! More details about the seminar will be provided with the next newsletter!

New Sustainability Website Coming FALL 2015!

Have something you'd like us to highlight in next month's newsletter?

Contact Us!

Transportation

This newsletter highlights the sustainability achievements of Cal State University, Long Beach students, faculty, & staff and promotes awareness & collaboration.

Our mailing address is:
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CSU CAMPUS AS A LIVING LAB

LONG BEACH

PROJECT NAME: Environmental Impact on Campus Water Quality

CALL CHAMPION: Holli Fajack

LEAD FACULTY PARTNER: Dr. Elaine Bernal

Learning Outcomes

Describe proposed course in one sentence; including campus sustainability element

Focusing on water conservation efforts, Chemistry in Today's World (CHEM 100, a course for non-science majors, provides a chemical context for sustainability initiatives and issues, particularly those related to water, at the campus level and in the local, national, and global community.

What specific skills will students learn? What knowledge will they gain?

- *Quantitative and qualitative techniques for water testing*
- *Communicating scientific and technical information to a general audience*
- *Understanding the implications of water quality in the campus and local communities*
- *Understanding water conservation challenges and initiatives on campus and beyond*

What Sustainability Outcomes does your team want the students to achieve?

We want students to contribute to data collection and analysis that will inform our campus water conservation practices while also becoming informed consumers of water who have the knowledge and skills to advocate for water conservation and water quality in their communities.

Connecting to CALL

How does this proposed course align with CALL program objectives?

Physical Planning & Facilities Management (PPFM) is committed identifying and pursuing operational improvements that will reduce CSULB's impact on the environment and conserve resources. The goal of the project and intention of the course redesign is to link water quality testing to actual actions that PPFM can take to minimize stormwater contamination and reduce campus water use. Further, while this project focuses on water quality and conservation, we also want to use this course as a platform for students to interact with Facilities staff and in the process, become more aware of campus sustainability efforts.

Which activities can CALL program support?

I would like to possibly create short video interviews from Physical Planning & Facilities Management (PPFM) or Chancellor's Office staff on different water conservation efforts on campus and system-wide

What is the team's vision for the next year as part of the CALL redesign program?

The vision is to potentially develop a policy related to campus water testing which would identify how frequently water should be tested and how information should be disseminated to the campus and CSU communities.

Overcoming Obstacles

Are there mismatches between desired learning outcomes and sustainability outcomes?

There is a challenge of ensuring that the CHEM 100 course activities and analysis conducted by student will remain relevant to the needs of PPFM in meeting sustainability outcomes over time. The question remains—specifically how will the water quality testing be of practical use to PPFM in the short and long term?

Do you need to modify existing outcomes?

Outcomes will likely need to be reevaluated and possibly modified at various intervals. This would be achieved through regular collaboration and communication with the CALL Champion and key PPFM staff.

Tracking Success

How will you know if students achieved Sustainability Outcomes?

Students would have achieved sustainability outcomes if the data collection and analysis they conduct is used to inform PPFM's water conservation efforts and if the students themselves are able to articulate to their peers and PPFM the connections between campus sustainability issues, the chemistry of water and their lab and lecture activities.

How will you know if this redesigned course is an improvement over the current version? How will you measure?

Improvement can be tracked through content analysis of their discussion and written assignments. The current version of the course only has lab report forms, textbook homework, and multiple choice exams as assessments.

Taking Action

What tasks/activities will the students perform?

The Landscaping & Grounds Department is currently transitioning CSULB's upper campus from using potable water to reclaimed water. While the department does work with a consulting agency to test campus water quality for the grounds once a year, the students in CHEM 100 can perform additional qualitative preliminary testing every semester.

Students will use the WaterSafe testing kit to test for Lead, Bacteria, Pesticides, Nitrates, Nitrites, Chlorine, Hardness & pH levels, and deliver a report and presentation to PPFM Staff.

What role will facilities/sustainability officer have in redesign process and course delivery?

The sustainability officer will be a liaison between PPFM and myself and my students.

Future Tasks

Designing the assignments

Online Discussions via LMS (content from course textbook):
Prompt: "Is there any such thing as pure drinking water? Discuss what is implied by this term, and how the meaning of this term might change in different parts of the world."
Prompt: "Infants are highly susceptible to elevated nitrate levels because bacteria in their digestive tract convert nitrate ion into nitrite ion, a much more toxic substance.
Give chemical formulas for both the nitrate ion and nitrite ion.
Nitrite ion can interfere with the ability of blood to carry oxygen.
Explain the role of oxygen in respiration. Hint: Review Sections 1.1 and 3.5 for more about respiration.
Boiling nitrate-containing water will not remove nitrate ion. Explain."
Prompt: "Water quality in a chemistry building on campus was continuously monitored because testing indicated water from drinking fountains in the building had dissolved lead levels above those established by the Safe Drinking Water Act.
What is the likely major source of the lead in the drinking water?
Do the research activities carried out in this chemistry building account for the elevated lead levels found in the drinking water? Explain."

Structure of assignments (group/solo)

Solo Activity:
"Hard water may contain Mg^{2+} and Ca^{2+} ions. The process of water softening removes these ions.
- How hard is the water in your local area? One way to answer this question is to determine the number of water-softening companies in your area. Use the Internet, as well as ads in your local newspapers and yellow pages, to find out if your area is targeted for marketing water-softening devices.
- If you chose to treat your hard water, what are the options?"

Group Activity

Water Testing Activity will be in groups of three, and each group will produce a report and brief presentation to the class. Data will be aggregated and produced as a poster to be presented at the Sustainability Mixer. I will ask students to volunteer for 30-45 minute shifts to present the poster.

CALL OBJECTIVE

The 'Campus as a Living Lab' Grant Program is a unique opportunity to partner faculty and facilities management staff in using the campus as a forum for the exploration of sustainability concepts and theories.