



**California/Nevada Section
Bimonthly Update
May 1, 2007
Eighth Edition**

- * **Professional licenses issued**
- * **Butte College Update**
- * **UCD BAE wins Picnic Day float award**

* **Professional licenses issued**

Congratulations to Randell Ishii, Carolyn Jones, and Betsy Gerwig on obtaining their Agricultural Engineering licenses in California.

* **Butte College Update**

Butte College is the largest community college campus in California, having 928 acres of land including wetlands, riparian areas along 3 branches of Clear Creek, grasslands, oak and grey pine woodlands, and about 80 acres of agricultural lands, including a soon-to-be organic vineyard. The developed campus covers only a small portion of our lands. The entire campus is designated as a wildlife refuge and our environmental stewardship efforts have been recognized. Development of the community is part of the experience we provide our students expecting that they will continue these activities in their careers.

HEO - Our Heavy Equipment Operators (HEO) program is impacted with 59 students in the major and 99 students enrolled in 4 sections of the HEO class. Most are also in Air Brakes, Hydraulics, and Farm Machinery. In shop mechanical classes, we have 39 students in Hydraulics and 37 in Air Brakes.

With the cooperation of our colleagues, 24 of our students attended the ASABE CA/NV Section Meeting in February. My instructional partner and I wish to express our appreciation and pride in the abilities and cooperation of this outstanding group of young people.

We are currently revising curriculum to incorporate multiple sections of Air Brakes and Hydraulics by combining the classes as well as combining Diesel Engines and Equipment Maintenance and Repair this fall. We also plan to integrate a First Aid/CPR class and certification into the curriculum.

HEO Projects - We generate some funding for our program through community project work. Examples include earthwork for three soccer fields in Oroville's River Bend Park, grading and site prep at Ishii Hills Middle School, building an overflow parking lot at Chico Airport, and building a barn and facility foundation pad for Handi-Riders, a charitable non-profit horseback riding group for challenged children.

Mechanized Ag - Incorporated into the HEO program, this program includes just a few classes (without Surveying), and only 1 section of HEO. We prepare students for shop careers with CalTrans, HOLT of CA, Petersen Tractor, etc. Generally, only 3-4 of our students aim to be mechanics. While we try to provide them with the information and experiences necessary to adequately prepare them for the workplace, we would like to improve the actual shop experience. While the changes described above will de-emphasize the mechanical component of the program, we have a plan.

Negotiations have begun with CalFire (formerly CDF) and Butte County for construction of a fire station/emergency operations center and a full heavy equipment/truck/support vehicle shop on the Butte College Campus. The largest benefit of this arrangement will be use of the emergency operations facility to allow us to add another fire academy, providing approximately \$250,000 in FTE generation for the college.

CalFire shop managers have agreed to allow our mechanics students to work as intern/apprentices in their shops while enrolled in our program. They appear to be excited at the prospect of having 3-4 shop helpers each year at no cost other than finding them productive work to do and asking a journeymen to guide them.

Welding Expansion - Butte College has one of the best welding programs in the state. Our instructors are active officers in AWS sectional activities and regularly attend AWS meetings with their students. Our welding program is essentially a 2-year program compressed into 1 year. Entered in the fall, the students enroll in 50 hours a week of classes in the Welding certification program, do a winter session pipe fitting class between fall and spring, and then have a short certification course. They spend most of their time in actual welding operations and exit the program certified and immediately employable.

We have been equipment-limited to about 33 students, stretching over the stated capacity of 30. The planned expansion will double our capacity. We have moved the machine shop from the welding building to the Mechanized Ag building.

Our classroom expansion, new welding booths, and equipment will result in larger lectures which will split into 2 labs, requiring extra staff only for the lab portions. The expansion will be ready for students in the Fall.

Sustainability & Cattle on Campus - We are currently involved with the California State University at Chico (CSUC) in a partnership instigated by the Carnegie Foundation as the American Democracy Project as one of three university-community college partnerships in the country chosen to develop a program fostering active citizenship in our students and our community. We have chosen sustainability as the vehicle for this enterprise and have been somewhat surprised at the speed with which this has been seized by students and faculty at both institutions. Last November, our students organized a sustainability conference which attracted over 900 people to workshops, informative presentations, and discussions. It became the largest such gathering in this country on sustainability.

Our plan is to acquire a small cattle herd (~20 head) and develop some irrigated pasture with a rotational grazing strategy which will allow us to restore the native grasslands and improve our rangelands while being a profitable, or at least self-sustaining, small, organic cattle operation. While improving our environment, we will provide a means to expand our animal science curriculum, attracting new students and providing them an increasingly valuable experience. Since Animal Science is the second largest Ag program at CSUC, we anticipate increasing the number of student transfers. Additionally, we are partnering with local ranches, including the Llano Seco Ranch, to increase industry involvement with our programs. We plan to become a living laboratory to showcase the environmental and economic benefits and development strategies of sound grazing practices.

We also hope to develop an agricultural education partnership with CSUC Ag to increase the number of candidates for secondary teaching in agriculture.

Conclusion - We believe that along with the career skills and abilities our students gain to succeed, we should also provide and encourage cooperation and the characters required for success in life, in industry, and in their communities. And that's just us!

(Submitted by Bruce Enyeart at 2007 Section Meeting. Edited by Carolyn Jones and Victor Duraj for this Update)

*** UCD BAE wins Picnic Day float award**

For the last three years, the College of Engineering has entered a "float train" in to UC Davis' Picnic Day Parade. The "float train" idea, originated in the BAE department, consists of eight warehouse wagons, each featuring one of the

eight engineering departments. The tracking nature of the trailers allows for a crowd pleasing “snaking” along the parade route. In two of the last three years, the aggregate entry has won in the campus-wide competition and the BAE entry has earned the intra-college award. The BAE entry was coordinated and built by the recently formed BAE student club, which will be featured in an upcoming Update. This year, UC Davis Dean of the College of Engineering, Enrique Lavernia, and CAEAA President Phil Vulliet presented the Picnic Day winning College of Engineering parade float trophy to Nick Howells of the Biological & Agricultural Engineering (BAE) Department. A photo of the presentation can be seen at <http://engineering.ucdavis.edu/pages/about/news/picnicday/2007gallery/index.html>.

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- If you have ideas for Update items or would like to get involved in the leadership group, let us know.