GOOD LUCK WITH THE REST OF THE QUARTER

Check out some of the fun activities that students in BRAE 433 get to participate in!
What is BRAE 433 up to?

In this course, expect to learn a lot with hands on experience!
Below are pictures of students in the course in previous quarters.

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**Engineers Without Borders Announcements**

Meetings:

Malawi: Bldg 10-115, Monday from 7-9pm
Nicaragua: Bldg 10-124, Monday from 7-9pm
Thailand: Bldg 10-126, Monday from 7-9pm
Local Projects: Bldg 10-221, Monday from 7-9pm
Fundraising: Library 216M, Thursday from 10-11am
For BRAE 312, our team was tasked to use an existing nozzle from the year before and modify the nozzle or create something new. We decided to take some of the pieces from an old nozzle, add some fabricated parts and make use of some parts from the local fire department. The pieces we kept were the six-inch to four-inch reducer and the flange welded to the reducer so we could attach the nozzle to the pump and use a smaller pipe diameter for our straight section. The pieces that we added or fabricated were the four-inch straight pipe and a special reducer. We wanted to use a four-inch pipe section for the longest run of our pipe because it had the ideal flow characteristics, which gave us the velocity we wanted to enter our next piece. The next piece was a threaded reducer that was made from scratch. Making the reducer was one of the most interesting parts of the project; we all had a part in fabrication and it actually worked. All of the parts were welded together and painted. The last pieces of the nozzle were inserting a stream straightener and attaching the fire hose nozzle. The stream straightener was designed to take any turbulent flow in the pipe and attempt to “straighten” it so the velocity loss due to friction through the nozzle would be limited. The fire hose nozzle was a very interesting addition to the project; it reduced our fabrication time and increased our chances of winning the competition.

Charlie Brennan, one of our group members, was able to “talk shop” with some of the local firefighters about nozzle design and flow characteristics; this gave us tremendous insight on our project. On testing day, the wind was beginning to pick up and did not stop for the testing. With a little adjusting of the nozzle angle we were able to get the most out of our nozzle with a winning distance of 216 feet. The entire experience was awesome from start to finish. It was great to take the concepts Dr. Styles has taught us in class and apply them to a real project.
Use Floor Sweep to Clean Up Floor Spills

Wet and/or slick surfaces pose a safety hazard and must be cleaned appropriately.

If you spill oil, gasoline, coolant, etc. onto the floor, or find a spill in one of the shop areas, use the floor sweep containers located in Labs 5 and 7 to clean up the safety hazard.

Clean-Up:

1) Evenly spread floor sweep over the entire spill.
2) Allow floor sweep to soak up spill.
3) Once spill is dry, clean up floor sweep and put back in container or discard in the dumpster.
### DECEMBER CALENDAR

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<td>Club Officer Meeting 6pm 8-122</td>
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**Finals Week**  
**Good Luck Students!**

**Winter Break**  
**See you all in 2016!**
STUDENT OPPORTUNITIES

Engineering Technician I, II, or III DOQ

Location: Fresno, CA
Pay Scale: Engr Tech I – Starting at $17.50 an hour DOE
           Engr Tech II – Starting at $20.27 an hour DOE
           Engr Tech III – Starting at $22.34 an hour DOE
FLSA STATUS: Non-Exempt
Employment Type: Full Time
Representation: Represented

To apply for this position, please visit www.fresnoirrigation.com and click on Employment Opportunities where you can download an application.

SUMMARY:
Under varying degrees of direction, performs a variety of office and field duties including planning, design and coordinating construction and maintenance of District facilities; develops construction plans and drawings; prepares reports, easements, contract documents and other engineering documents, provide assistance to other engineering staff, customers, construction personnel, outside agencies and others as necessary; and performs other related duties as required.

DISTINGUISHING CHARACTERISTICS

Engineering Technician I – This is the entry level class of the Engineering Technician series. Employees work under immediate supervision performing assigned tasks. Employees may have limited job related experience and are trained on the job.

Engineering Technician II – This is the intermediate level class of the Engineering Technician series. Employees are distinguished from the Engineering Technician I by performing assigned tasks requiring with some degree of independent initiative and judgment but still working under immediate supervision.