



Pipeline Press







Chemistry: A Pipeline to 21st Century Careers

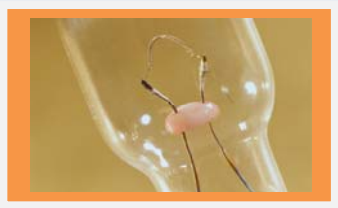
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Cool Chem Fact Did you Know?



Tungsten A Real Hot Wire!

Tungsten (74) is a metal with high melting temperature - 1650°C. Due to this as well as its ability to be drawn into very thin metal wires, it is commonly used in light bulbs. Tungsten carbide is very hard and thus is often used in mining machines. Without tungsten, the carbide-enforced mining machines the tunnel France-UK could not be built.

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Director's Message...



Dear Readers,

Year three of our National Science Foundation grant is quickly coming to and end. Noteworthy accomplishments include the acquisition of state-of-the-art analytical instrumentation to be used in all of our chemistry classes and the approval of our New Chemical Laboratory Technology academic program. More significant to students however, is the opportunity to conduct independent laboratory research projects using the Nuclear Magnetic Resonance Spectrometer, the UV-Vis Spectrophotometer with an integrating sphere or the newly acquired Gas Chromatograph with a Mass Spectrometer detector. Our chemistry classes continue to grow. We are currently running at capacity. Students also welcome academic challenging courses such as the Organic Chemistry Honors classes. They are energized, engaged and excited to be given special assignments to conduct mini-research projects and to build a chemistry learning community. Chemistry students also had the opportunity to participate in an informal conversation with the President of the American Chemical Society, Dr. Thomas Lane when he paid a visit to our College last November.

This semester we began conversations with the Career Technical Education Coordinator at Sequoia Unified High School District and the Basic Skills initiative coordinator at our campus to determine possible venues of effective collaboration that will benefit all of our students.

Our chemistry outreach efforts continue to gain momentum as well. We have delivered several workshops on-campus and off-campus on forensic applications of visible spectrometry; acid-base chemistry; qualitative and quantitative aspects of rates of reaction; and nanomaterials. All of these workshops have been very well received by their intended audiences.

This March, I will present our work at two conferences very relevant to chemical education to be held in San Francisco. Additional information about these conferences can be found in the "Upcoming Event Section" of this newsletter. Conference registration sponsorship made possible by our NSF grant will be distributed to high school and college educators on our mailing list. I will invite my colleagues to consider attending one or both of these conferences for an opportunity to exchange ideas about the teaching and learning of chemistry that goes on in our classrooms.

Please feel free to contact me at medinaj@smccd.edu with your questions or to learn more about our Chemical Laboratory Technology program; our Chemistry Honors courses; or our activities and events.

Jeanette Medina

Volunteer Industry Partners Needed

We are seeking to establish valuable industry alliances to assist us with the development of an Associate in Science in Chemical Laboratory Technology degree and a Chemistry Laboratory Technology Certificate. For additional information contact Dr. Jeanette Medina, Project Director at (650)306-3255 or (650) 306-3304, by email at Canada.NSFGrant@smccd.edu.

Employers Wanted!

If you are an employer who has Chemical Laboratory Technicians on your staff we would like to hear from you!

Please contact us at:
(650) 306-3304
email us at:

Canada.NSFGrant@smccd.edu

Cañada College News

National Ford Motor Company Commercial Shot on Campus

Bay Area celebrity Mike Rowe was on campus in November to shoot a national television commercial for the Ford Motor Company. Rowe is the creator and executive producer of Discovery Channel's Emmy-nominated series Dirty Jobs With Mike Rowe. According to Les Milne of LM Production Services, the campus was chosen because of its natural beauty and the staff's willingness to work with the production team. Cañada President Tom Mohr said projects like the television commercial bring in valuable resources. "We need to be creative in these tight budget times," he said. "We're looking at all options to raise revenues."

Cañada Enrollment Snapshot

Spring Semester is off to a soggy start and with numerous activities planned for February we're keeping our fingers crossed that the sun reappears soon. Student enrollment remains strong. At the end of the first day of class the following increases were noted as compared to Spring 08-09.

Course enrollments - up 13.0%
Headcount - up 8.0%
FTES - up 8.1%

Many classes have waiting lists.

Project News:

Associate in Science and Certification of Achievement in Chemical Technology Approved

On **November 10, 2009**, Jack Scott, Chancellor of the State of California Community Colleges, approved the Associate in Science and Certification of Achievement in Chemical Technology at Cañada College. The following courses were added to our catalog and the first class (CHMT 310) was offered in Spring 2010.

Course Title (CORE)

CHMT 310 - Introduction to Chemical Laboratory Technology,
CHMT 340 - Introduction to Chemical Laboratory Instrumentation,
CHMT 672 - Cooperative Education, Internship

Grant Website Proves to be Useful Dissemination Tool

In November 2008, we launched our website, www.canadacollege.edu/nsfgrant/. It has proven to be an inexpensive and valuable tool for disseminating important information about our grant. We have been able to keep our academic and industry partners abreast of our activities, findings, and progress. In addition, it has been a useful recruiting tool as we work to connect with other grants and programs.

Over the past 10 months (March -December 2009) we have been tracking "hits" to our website. During this period there were over **2700 "page views" were recorded**. A copy of this summary report highlighting our website activity is available on our website.

Upcoming Events

Spring 2YC3 Conference, San Francisco, March 19-20, 2010

"Recruiting and Retaining High School Students in College Chemistry Programs"
Dr. Jeanette Medina will join two other speakers in this panel discussion.

ACS National Meeting, San Francisco, March 21-25, 2010

"Strategies for Enhancing Student Transfer and Success", CHED Symposium
Dr. Jeanette Medina will give an oral presentation on the subject of student success and career opportunities.

NanoDays are from March 27-April 4, 2010.

NanoDays is a nationwide festival of educational programs about nanoscale science and engineering and its potential impact on the future. NanoDays events are organized by participants in the Nanoscale Informal Science Education Network (NISE Net), and take place at over 200 science museums, research centers, and universities across the country from Maine to Hawaii. This year we will be participating in NanoDays activities at both Cañada College and the San Mateo Main Library.



For additional details about our grant go to the National Science Foundation Website at:

<http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=0703188>



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We're on the Web!
www.canadacollege.edu/nsfgrant

Newsletter archives can be found on the Photo Gallery page of our site

Events This Quarter

October 18-24, 2009 – National Chemistry Week Activities

During National Chemistry Week a group of organic chemistry students set up and manned an information booth located on the landing of our new student center to talk with students about our chemistry program. Brochures with information about our new Chemical Technology program were distributed. Bagels and juice were provide to over 100 students.



October 21 – 23, 2009 ATE - Principal Investigators Conference – Washington DC

Melody Yang attended the - Principal Investigators Conference, "Technicians in the Green Economy", hosted by the American Association of Community Colleges (AACC) in collaboration with NSF. The conference provided an opportunity for Senior Grant Personnel to meet with other ATE grantees and share promising practices and program information. Dr. Yang greeted convention attendees at our Cañada College booth to provide information about our grant activities including our new Chemical Technology program.



November 10, 2009 - Second Annual NSF Advisory Board Meeting at Cañada College Campus

A group of individuals from industry, government agencies and academia met on the Cañada College campus to discuss issues pertaining to the creation of a the new program in Chemical Laboratory Technology that was offered for the first time at Cañada College beginning Spring Semester 2010. In addition, Dr. Melody Yang presented an overview of the many wonderful outreach activities she has developed and presented over the past three months. This PowerPoint presentation can be view on our web site: www.canadacollege.edu/nsfgrant



October 27, 2009 - 'Chocolate, Food of the Gods'-Speaker Howard Peters, Ph.D., Redwood City Main Public Library

This talk included the history of chocolate, all aspects of the processing the delicacy, the chemistry, biochemistry, and biology of chocolate, the health aspects that show this food is good for you, discussions about the 'dark side' of chocolate, and the circulating legends (& trivial connections) about chocolate. The presentation was open to the general public and over 120 chocolate lovers of all ages attended, including middle school, high school, and college students.

