

Website: <http://2yc3.org>

Chemistry Outlook

An Activity of
The Committee on Chemistry in the Two-Year Colleges
Division of Chemical Education
American Chemical Society



Lance Lund, Chair

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Notes From The Chair

Lance S. Lund
Anoka Ramsey Community College
Coon Rapids, MN

Serving an organization run by volunteers brings many rewards and challenges. I am very proud of the effort put forth by the individuals currently serving in various capacities that surround me as chair. I can confidently say that the future of the 2YC₃ is very bright. However, in order for this bright future to remain on track, a very pressing need must be addressed. The 2YC₃ is currently in need of a webmaster and a newly designed website. On the surface, the everyday user will notice that the current website works with a fair amount of functionality. However, the infrastructure presently in place is out-of-date and does not readily accommodate the growth and functionality that will take the 2YC₃ into the future.

My vision for a new website is one in which members and sponsors would have a unique username and password to access their accounts. With the click of a button or two, one could quickly determine their current membership or sponsorship status and pay their dues or fees online. The names of members and sponsors would automatically be posted to the website upon payment, with the ability to opt out for privacy purposes. There would also be the ability to register and pay for conferences online, including the selection of meals and workshops with limited seating options.

Most features currently in place on the website would be retained, such as access to current and old newsletters, regional advisory boards, information on upcoming conferences and conference planning information, job postings, and archives of past meetings. New additions to the

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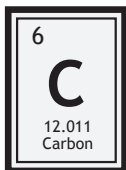
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ACS
Chemistry for Life™





2010

188th CONFERENCE/21st BCCE

Aug 1-5, 2010

University of North Texas,
Denton, TX

Contact: Thom Jose
Blinn College, Bryan, TX
Email: tjose72@yahoo.com

189th CONFERENCE (Western)

September 10-11, 2010

Portland Community College
Portland, OR

Contact: Patty Maazouz
Email: patty.maazouz@pcc.edu

190th CONFERENCE (Eastern)

November 12-13, 2010

Wake Technical Community College
Raleigh, NC

Contact: Dee Dee Allen
Email: daallen@waketech.edu

“Notes from the Chair” ...continued from page 1

website may also include an online discussion board or a forum to share innovative teaching materials and techniques. Might the future also include an online conference, webinar, or live streaming of conference presentations? Who knows?

After all, it was just in November 2008 that the ability to make credit card payments for membership dues and college sponsor fees on our website through PayPal was added. Though this arrangement has some limitations, we have collected payments for membership from a few individuals for whom it had been several years since they were current with their dues.

Here comes the tough part for a small, grassroots organization run by volunteers. How does such an organization pull something like this off? Is there someone within our membership that has the skills to develop such a website or knows anyone that does?

Are you that person? Would you be willing to take on this challenge as a pet project or know someone that could? Might you and a colleague have a desire to work together on such a project? Think about it. If you have an interest, please contact me at chair@2yc3.org and we just might put you to work.

The office of webmaster is an elected position with a three-year term that is set to expire on December 31, 2011. The office was recently vacated due to personal reasons, so candidates interested in the position will be considered for appointment to serve the remainder of the term. If you are interested in pursuing the office of webmaster with a colleague, it is possible that co-webmasters may be considered.

Five years ago, I was appointed as webmaster under similar circumstances. The shell of a website was developed from scratch over a weekend, after which it took many hours to populate the website with the content you see today. Our outgoing webmaster, Andy Aspaas, brought new functionality to the 2YC₃ website, including the ability to make payments by credit card through PayPal and the implementation of 2yc3.org email addresses for members of the executive committee. I am grateful for his contributions and wish him well as he pursues his personal and professional endeavors.

I would like to close by publicly thanking the conference chairs and organizers of the recently held conference at the City College of San Francisco – Bob Price, Torrey Glenn, Malinda Pauly, Larry Fong, Tim Su, and Ray Fong. With over 160 registrants, it was the best attended conference in the last 15-20 years, likely the best ever. There was something on the program for everyone. Future conference chairs would certainly benefit from their experience. I plan on attending the BCCE this August and encourage your attendance as well. I sincerely wish you all the best as you wrap up the academic year and head into summer!

188th 2YC₃ Conference / 21st BCCE

“A New Decade for Opportunity”

University of North Texas
Denton, TX

August 1 - 5, 2010

27 Co nference Information

58.933
Cobalt

For registration, lodging information, travel directions, and the latest information on the conference program, visit the conference website: <http://bcce2010.org>.

General Chair: Diana Mason

Program Chairs: Amina K. El-Ashmawy & Maria Oliver-Hoyo (program@bcce2010.org)

Two-year College Program Coordinators: Susan Shih & Thom José

Preliminary Program

Sunday, August 1

- 2:00 – 5:00 PM ChemEd Bridges: A Retrospective on Its Impact (Thomas Higgins and David Brown)**
- 2:00 – 2:05 Introduction
- 2:05 – 2:25 ChemEd Bridges: Past, Present and Future (Harry Ungar)
- 2:25 – 2:45 Two-Year College Faculty Networking: Keeping the Passion and Remaining Sane Through the First Years (Torrey Glenn)
- 2:45 – 3:05 Curriculum Reform in Chemistry at a Community College (Bal Barot)
- 3:05 – 3:25 Using Web Based Resources to Teach Organic Chemistry (Christine Brooms)
- 3:25 – 3:40 Break
- 3:40 – 4:00 NSF-DUE Programs of Interest to Community Colleges (Eun-Woo Chang)
- 4:00 – 4:20 Bridging Chemistry Curriculum: Contextualization through Instrumentation (Armando Rivera)
- 4:20 – 4:40 Positive Impact of ChemEd Bridges Support at Hinds Community College (Pamela Clevenger)
- 4:40 – 5:00 Panel discussion
-
- 2:40 – 4:40 PM Community College and University: Sharing Funding, Research, Students, Faculty, Instruments and Expertise (Carolyn Judd)**
- 2:40 – 2:45 Introduction
- 2:45 – 3:05 University of St. Thomas: Strengthening Higher Education through Shared Funding and Resources (Thomas Malloy)
- 3:05 – 3:25 Houston Community College: Adapting Our Environment to Include Research and Fine Instruments (Yiyang Bai)
- 3:25 – 3:40 Break
- 3:40 – 4:00 Houston Community College and University of St. Thomas: Student Perspective on Joint Environmental Science Research (Israel Garza)
- 4:00 – 4:20 Rice University: Nanotechnology Experience for Community College Students (Carolyn Nichol)
- 4:20 – 4:40 Panel discussion: A Closer Look...Does Sharing Work and Who Benefits? (John Moore)

Other Talks of Interest

- 3:40 – 4:00 **Assessment in Chemistry Education**
Need for an Objectives-Driven Standardized Exam in Introductory Chemistry (Theodore Dolter)

Sunday Events

- 6:02 PM Opening Ceremonies (The Auditorium)
Opening of the Exhibit Hall (Student Union)
Raisin' ${}_{20}\text{Ca}_{10}\text{Ne}$ Opening Party featuring The One O'Clock Lab Band
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Monday, August 2

9:20 – 11:20 AM **Community College and University: Sharing Funding, Research, Students, Faculty, Instruments and Expertise (Carolyn Judd)**

- 9:20 – 9:25 Introduction
9:25 – 9:45 Access to NMR Spectroscopy for Two-year College Students: The NMR Site at Trinity University (Michael Shanklin)
9:45 – 10:05 Texas Wesleyan University: Reflections on Research and Resource Collaborations (Robert Landolt)
10:05 – 10:25 Houston Community College and University of St. Thomas: Students Funded by a CCRAA Department of Education Grant Learned Biochemical Techniques in a Summer Enrichment Program (Susan Grigsby)
10:25 – 10:40 Break
10:40 – 11:00 Undergraduate Science Research Experience (USRE) and its Transformative Nature for Houston Community College Students (Bartlett Sheinberg)
11:00 – 11:20 PUENTES: A Bridge between Laredo Community College and Texas A&M International University Science Departments (James Newton)

2:00 – 4:40 PM **Supporting and Engaging Two-Year College Programs: Exploring the ACS Role (Jodi Wesemann)**

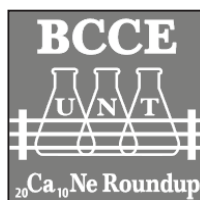
- 2:00 – 3:25 Leveraging the ACS Guidelines for Chemistry in Two-Year College Programs and Other ACS Resources: How Can They Be Put to Good Use? (John Clevenger)
3:25 – 3:40 Break
3:40 – 4:10 Developing Resources to Complement the ACS Guidelines for Chemistry in Two-Year College Programs: What Is In the Guidelines and What Is Missing? (Susan Shih)
4:10 – 4:40 Increasing the Impact of Two-Year College programs: What Else Needs To Be Done? (Scott Donnelly)

Other Talks of Interest

- 11:00 – 11:20 **Assessment in Chemistry Education**
Students' Expectations, Success and Attitudes in Online Chemistry Courses (Shawn Kellie)
- 9:25 – 9:45 **Research Programs and Experiences at All Levels**
Developing a Research Culture at Collin College (Bassam Attili)
10:05 – 10:25 Teaching by Research Projects in a Community College (Bal Barot)
2:25 – 2:45 Bridging Small Business Innovation and Community College Research Teams (David Brown)

Monday Events

- 6:02 AM 6.02 km Mole Fun Run
1:00 – 1:45 PM 2YC₃ General Membership Meeting (Student Union rm. 418)
JCE/2YC₃ Ice Cream Social after the plenary talk
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Continued next page...

Tuesday, August 3

9:00 – 12:00 PM

Practices and Policies that Foster Excellence in the First Two Years

(Jodi Wesemann and Cathy Nelson)

- 9:00 – 9:40 Student Excellence – What Does It Mean? (Cynthia Larive and John Clevenger)
9:40 – 9:55 Engaging the Next Generation of Scientists: Making the First Chemistry Course Relevant (Scott Donnelly)
9:55 – 10:10 Engaging the Next Generation of Scientists: Making the First Organic Chemistry Course Relevant (Bob Howell)
10:10 – 10:25 Developing Higher-Order Thinking Skills in the First Two Years of Chemistry (Thomas Holme)
10:25 – 10:40 Break
10:40 – 11:10 Strategies for Increasing Participation and Fostering Excellence (Cynthia Larive)
11:10 – 12:00 Active Learning in the First Two Years of Chemistry (Susan Shih, Lee Park and Hongqui Zhao)

2:00 – 5:00 PM

Practices and Policies that Foster Excellence in the First Two Years

(Jodi Wesemann and Cathy Nelson)

- 2:00 – 2:55 Development of Student Skills in the First Two Years of the Chemistry Curriculum (Mary Berry, Miles Koppang and Barbara Sawrey)
2:55 – 3:25 Having Your Cake and Eating It Too: Taking Advantage of Professional Development Opportunities (Lee Park, Scott Donnelly and Larry Kaplan)
3:25 – 3:40 Break
3:40 – 4:30 Anecdotes Are Not Enough: Demonstrating Excellence through Assessment (Diane Bunce, Lucy Eubanks, Tom Holme and Barbara Sawrey)
4:30 – 5:00 Student Excellence – Where to Next? (John Clevenger and Cindy Larive)

Tuesday Events

Texas BBQ and all the fixin's at the Circle R Ranch
Boot Scootin' with the Grammy Nominated Crawfish Band

Wednesday, August 4

2:00 – 5:00 PM

Where Is Chemical Technology Headed in 2010? (John Kenkel)

- 2:00 – 2:05 Introduction
2:05 – 2:25 ACS Chemistry-Based Technology Education: Moving Forward with Change (Joan Sabourin)
2:25 – 2:45 The Big Shift Change and the Big Rollover: Understanding Forces Shaping Chemical Technician Demand and Impacting Technology Program Design (Austin Taggart)
2:45 – 3:05 Innovative Approach to Teaching Chemical Instrumental Analysis (Michele Mangles)
3:05 – 3:20 Break
3:20 – 3:40 Economic Changes in the Chemistry-Based Industry in San Diego and Their Impact on Technician Education at Southwestern College (David Brown)
3:40 – 4:00 Ten Years after the NSF-ATE Grants: Where Are We Now? (John Kenkel)

Other Talks of Interest

Mentoring Faculty: Lengthening and Strengthening the Chain

- 10:25 – 10:45 Professional Development Challenges and Opportunities (Amina El-Ashmawy)

Wednesday Events

- 6:02 AM Mole Day Breakfast
6:02 PM Pachanga featuring Al D. Hyde and the Key Tones
-

Thursday, August 5

Talks of Interest

Curricular Revisions to Improve Student Learning

- 7:55 – 8:15 Students as Individuals: How Community Colleges Excel in Student Learning (Bryan May)
8:15 – 8:35 NSF Catalyzes Curricular Change at Our Community College: NMR Award Drives Innovation and Implementation of Guided Inquiry Labs (Paul Martino)

Registration

The registration fee includes: a 21st BCCE Conference Bag, a Conference Badge, a printed copy of the program book, a pocket guide, and other printed materials from sponsors of the conference. A Conference Badge allows admittance to plenary and keynote sessions, exhibition area, symposia, social events, and transportation on UNT campus buses. Additional fees are charged for workshops, outings, tours, and the Mole Day Breakfast. No meals are included with the registration fee – meals are “on your own”. There will be no single day registrations available for the 21st BCCE.

For insurance reasons, all accompanying guests using on-campus housing or attending any 21st BCCE functions MUST REGISTER with the conference. A guest badge will be issued to each guest that is attending with you including children. The guest badge covers admittance to plenary and keynote sessions, exhibition area, symposia, most social events, and transportation on UNT campus buses. It does not assure a conference bag with materials for any events. Guests may purchase field trip(s), planetarium, and Circle R tickets separately.

	Early Registration (prior to 3 June 2010)	Final Online Registration (3 June 2010 - 26 July 2010)
Regular Registration	\$250	\$300
Secondary School Educators	\$200	\$250
Undergraduate/Graduate Students	\$125	\$175
Guest Registration*	\$20	\$30
Child (under 17) Registration*	\$10	\$10

*Circle R tickets are \$50 for persons over 12 years

Lodging

The fees include linens (towel, wash cloth, two sheets, bath mat, pillow & pillow case for the conference). Check-in is 3 PM and check-out is 1 PM. The housing fees for on-campus housing are finalized and are posted below. The fees are all inclusive – that is all taxes are included in these rates. Additional information can be found on the on-campus housing page. You can register for on-campus housing using the online registration form for the conference.

Legends Hall*
221 North Texas Blvd.
Denton, TX 76201
(940) 565-3862

Traditions Hall*
502 North Texas Blvd.
Denton, TX 76201
(940) 565-2701

Amenities

Linens, shared bath with one other room,
air conditioned rooms

Linens, shared bath with one other room,
air conditioned rooms

Nightly Rate (per person)

Single occupancy with shared baths: \$30.25

Single occupancy with shared baths: \$30.25

*A cot can be added for \$7.50 per person with linens (child only).

Conference Inns, Suites, & Hotels

Off-campus housing is also available. Many of the local hotels are providing BCCE participants State of Texas rates (State Rate = \$85). Ask for the CCE rate when calling the hotels to make reservations!

\$85 Holiday Inn - Conference hotel (shuttle to and from campus)

\$70 Quality Inn & Suites

\$82 Best Western Inn & Suites (I-35 @ University Rd.)

\$85 Heritage Inn - Special conference rate...owner is a chemist by degree!

\$85 Hampton Inn & Suites

\$85 ComfortSuites@UNT (by the University of North Texas) Conference attendees can also call 1.800.4CHOICE(246423) and give the client code: 00069163 or call hotel directly at 940.898.8510 and ask for LBCCE Rate.

\$85 Fairfield Inn and Suites

\$85 Best Western Crown Chase (behind Texas Roadhouse Restaurant)

\$99 Courtyard by Marriott

\$109 Homewood Suites (includes hot breakfast, dinner drinks from 5 – 7 PM)

\$129 Wildwood Inn (standard rooms)

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About The University of North Texas and Denton, TX

The University of North Texas (UNT) is the leading university in the Dallas/Fort Worth metroplex. It is the third largest university in Texas with over 36,000 students. UNT offers 97 Bachelor's, 101 Master's and 49 PhD programs. It was named one of America's Best College Buys® for 10 consecutive years. UNT is the largest provider of online credit courses among Texas public universities. It has been repeatedly named one of the top 100 colleges for Hispanic students and The College of Music was named one of the nation's best music programs in Schools that Rock: The Rolling Stone College Guide. The UNT Chemistry Department is the largest in the region with 20 full-time faculty and over 80 graduate students, visiting scientists and post-doctoral students.

Denton is home to over 70,000 residents and two major universities (UNT and Texas Women's University). In 2008, Money magazine named Denton one of its "best places to live." Denton is home to two state-of-the-art medical centers. Denton is at the crossroads of I-35 West and I-35 East. It is 35-40 miles from two major airports (Love Field, home to Southwest Airlines, and the Dallas-Fort Worth International Airport)...make sure your shuttle service knows which one you are flying into!

190th 2YC₃ Conference Preliminary Information and Call for Papers

Green Chemistry: Practical Applications and Educational Relevance

November 12-13, 2010
Wake Technical Community College
North Campus
Raleigh, NC

Location Information

Please join us in the capital city of Raleigh, NC. Raleigh is a friendly southern city located in the heart of North Carolina, an area rich in academic, historical and cultural interests. There is always something for everyone - restaurants, museums, cultural arts and shopping. Wake Technical Community College opened in 1963 and is part of the North Carolina Community College System. It is currently the second largest community college in the state, with an annual enrollment of more than 65,000 students. The meeting will be hosted at our new Northern Campus which is an environmentally friendly campus with LEED certification.

Preliminary Information

The conference will focus on green chemistry and what it means for educators in the two-year undergraduate curriculum. There will be concurrent symposia, panel discussions, and workshops available to choose from. Topics may include green chemistry in the lecture or the lab, the role of technology in greening our courses and other relevant educational topics.

Call for Papers

We are currently extending an invitation to all faculty interested in contributing to the program. We are looking for presentations, workshop leaders, or panel discussions on topics relevant to green chemistry and/or the field of chemical education.

Contact Information

Program Chair:	DeeDee Allen	daallen@waketech.edu	919-866-5585
Local Arrangements Chair:	Tracy Cheatham	tmcheatham@waketech.edu	919-866-5311
Exhibits Chair:	Ajit Dixit	asdixit@waketech.edu	919-532-5612

189th 2YC₃ Conference

*Kaleidoscope:
Celebrating New Innovations in Two-Year College Chemistry Programs*

Preliminary Program Information

September 10-11, 2010
Portland Community College
Sylvania Campus
Portland, OR



Conference Theme

Are you interested in learning new teaching methods to enhance student learning in your classroom? Is your college encouraging the development of on-line chemistry courses? Have you wondered how to incorporate nanotechnology or green chemistry into your class? The 189th 2YC₃ Conference is sure to provide you with ideas to enhance your classroom with a kaleidoscope of methodologies!

Preliminary Information

We are pleased to announce our keynote speaker Professor Thomas Greenbowe of Iowa State University, who is a leading innovator in improving teaching techniques in the undergraduate chemistry classroom. Tom works collaboratively with high school chemistry teachers, community college chemistry instructors, and university chemistry and education faculty to improve the introductory chemistry experience and curriculum. Dr. Greenbowe will present the keynote address as well as a workshop on how to incorporate some new methodologies in your lab and classroom!

Our conference will include symposia, workshops, and panel discussions focused on distance learning, nanotechnology in two-year colleges, green chemistry, and community outreach programs that include partnerships between 4-year colleges/universities and community colleges, as well as other presentations of general interest. In addition, there will be many opportunities to meet vendors with state-of-the-art lab equipment and classroom technologies, including on-line homework and classroom-response clickers used to enhance student learning in your courses.

Special Workshop Announcement: Arrive a day early to attend an all-day workshop on *Thursday* on Process-Oriented Guided Inquiry Learning (POGIL), an interactive technique that seeks to improve students' critical thinking skills. Check at <http://pogil.org/> for details as they come about.

Finally, we have two different tours planned so far in the beautiful Portland area. The first tour will take you to Intel's Manufacturing Facility to see direct applications of nanotechnology. Since Portland is also renowned for its fresh microbrews and many Willamette valley wineries, we have a tentative tour planned to microbreweries and/or wineries.

Call for Papers

Please contact the program chair by May 15th if you would like to contribute to our program by giving a presentation or workshop in any of the aforementioned areas.

Contact Information

Program Chair:	Patty Maazouz	patty.maazouz@pcc.edu	503-977-8209
Local Arrangements Chair:	Kenneth Friedrich	kenneth.friedrich@pcc.edu	503-978-5660
Exhibits Chair:	Gabriele Backes	gbackes@pcc.edu	503-614-7315

ACS Expands Office of Two-Year Colleges

Recognizing the growing role of two-year programs in chemistry education, the ACS Board of Directors voted at its August 2009 meeting to allocate additional resources to the Office of Two-Year Colleges. Effective January 1, 2010, the reallocation significantly increased the staff, resources, and opportunities available to engage the two-year college chemistry community.

Partnering within ACS

Among other duties, the Office of Two-Year Colleges provides support to the Task Force on Two-Year College Activities. The task force was charged by the Society Committee on Education to determine the interest in and viability of strategies for engaging and supporting two-year college chemistry programs. The task force is currently refining procedures for assessing and increasing the impact of the *ACS Guidelines for Chemistry in Two-Year College Programs* and developing appropriate supplements. It is also developing a framework for fostering excellence in two-year college chemistry education.

The Office of Two-Year Colleges is also partnering with the Division of Chemical Education's Committee on Chemistry in the Two-Year College (COCTYC) on the ACS Two-Year College Faculty Status Survey (see below). Additionally, COCTYC is supporting the development of the office's database of two-year college contacts.

Soliciting information

In March 2010, the ACS Office of Two-Year Colleges released the ACS Two-Year College Faculty Status Survey. Designed to parallel an analogous survey conducted the ACS Committee on Professional Training in 2009, the ACS Two-Year College Faculty Status Survey will provide a snapshot of the landscape for two-year college chemistry faculty. Results from the survey will be used to inform future ACS activities and create a baseline for future data collection. A complete report will be available at the end of the summer.

The Office of Two-Year Colleges is also actively seeking feedback from the community. Because the office has historically focused on transfer programs, it is organizing a series of conference calls with the coordinators of the ACS-approved chemistry-based technology programs. The first call, held February 25, 2010, generated a lot of information on how ACS could better serve the chemistry-based technology and transfer communities.

Seeking input

The Office of Two-Year Colleges is seeking input from all members of the two-year college chemistry community on what programs, products, and services would be of greatest benefit. Faculty, administrators, students, and industry members are encouraged to visit www.acs.org/2YColleges, email 2YColleges@acs.org, or call 1-800-227-5558, ext. 6108, to learn more about Office of Two-Year Colleges or provide feedback.

**Interested in the results of the ACS Two-Year College Faculty Status Survey?
Have ideas of how and where the results should be disseminated?
Volunteer to help!**

Two-year programs across the country are currently completing a survey on the status of their chemistry faculty. Volunteers are needed to advise the Committee on Chemistry in the Two-Year College and the ACS Office of Two-Year Colleges with the analysis, presentation, and dissemination of the survey results. Input will be provided via e-mail and conference calls from April to August 2010. For more information, e-mail 2YColleges@acs.org.

Job Opening American Chemical Society Program Manager, Two-Year Colleges

ACS is looking to hire a person with a college degree in chemistry or a related science or equivalent experience to manage the Office of Two-Year Colleges in Washington, DC. This includes coordinating communications, gathering information, serving as Staff Liaison to the Society Committee on Education Task Force on Two-Year College Activities, developing resources, and overseeing one staff member and program budgets. Excellent organizational, verbal and written communication, leadership, and interpersonal skills are required. Seven years of related experience is desired, preferably in a two-year college, along with familiarity with student transfer issues, faculty development, and assessment.

For more information, contact 2YColleges@acs.org.
To apply, go to <https://acs.silkroad.com/>.



Integrating Computers into Laboratory Instruction:

Balancing Content, Inquiry Skills, and Increasing Enrollment
New Educational Strategies to Improve Learning

A 2-1/2 day Summer Conference for Chemistry Faculty
Alumni Conference Center, Montana State University, Bozeman, MT
July 19-21, 2010

Participants in this two-and-a-half day conference will work together with national leaders in chemical education to explore, practice, and evaluate new instructional strategies and the use of computer technologies to improve learning, to use limited lab time and space more effectively, and to reduce chemical costs and increase safety. They will also have an opportunity to enjoy Montana's Mountain West.

CONFERENCE STAFF:

Dr. John Amend, Professor of Chemistry Emeritus, Montana State University, President, MicroLab, Inc.

Computers and Color Graphics as Tools for Inquiry: Engaging students in Science, and Drawing Concepts from Experimental Data:

Dr. Tom Greenbowe, Professor of Chemistry, Iowa State University, past Chair of the ACS Division of Chemical Education.

Using the Science Writing Heuristic to Improve Understanding in the General Chemistry Laboratory

Dr. Norb Pienta, Professor of Chemistry, The University of Iowa, Editor of the Journal of Chemical Education.

Using Live Graphics and Visualization to Improve Understanding in the General Chemistry Laboratory

Mr. Doug Schumacher, Laboratory Coordinator, Luther College.

There is More to Lab than Data Acquisition

Dr. Mike Seymour, Professor of Chemistry, Hope College. Past Head of the Department of Chemistry at Hope College, Holland, MI.

Integrating Research Strategies into the General Chemistry Laboratory

Contact Diana Paterson, dianap@montana.edu, at the MSSE Program at Montana State University (406) 994-5679 for registration, conference, or graduate credit information. Contact John Amend, jamend@microlabinfo.com, at MicroLab (406) 586-3274, for conference content information. The conference brochure is on the MicroLab web site, microlabinfo.com.

ChemEd Bridges Funds Award Jeanette Medina is First Winner

Professor Jeanette Medina, an exemplary faculty member from the Cañada College Chemistry department, won the first *Teacher-Scholar Award* for Community College Chemistry Faculty. She will receive a plaque and \$500, with the same amount going to her department.

Medina has taught chemistry for 13 years, has published 14 papers in refereed scientific journals, and is the principal investigator on three National Science Foundation grants. With a 2007 grant, she developed a certificate program and an associate in science program in chemical technology that prepares Cañada students for technician positions in local industry and Cañada graduates for undergraduate transitions to baccalaureate programs in the chemical sciences.

The initiative for the award and the first \$500 in seed money came from the NSF-funded *ChemEd Bridges* (CEB) Project. CEB provides professional development opportunities to expand the horizons and enrich the careers of community college chemistry faculty, encouraging more of them to become teacher-scholars.

The Santa Clara Valley section of the American Chemical Society established the award earlier this year by. Each year it will honor an exemplary faculty member from one of the 13 community colleges in the ACS-SCV local area that includes five counties around San Jose, CA. Tom Lane, President of the American Chemical Society (ACS), presented the award on Nov. 19, 2009.

CEB hopes that this initiative will generate publicity and catalyze the creation of similar awards in other ACS local sections, at regional levels, and ultimately at the national level. The publicity surrounding these awards is expected to increase the visibility, respect and appreciation accorded to community college science education, both by other chemists and the general public.

For supporting information about the award and how it works, please contact **Harry Ungar** of the Cabrillo College Chemistry Dept. Email: haungar@cruzio.com. We will provide all the materials needed to make it easy to set up your own award.

What's Happening in My Area? News From the Regional Advisory Boards (RABs)

Western RAB Dick Gaglione, Chair

The William Mooney Endowed Scholarship

Margery Mooney, widow of William Mooney, has informed the 2YC₃ that the Mooney family will be establishing an endowed scholarship that will provide a \$1,000 scholarship every year into perpetuity. The Osher Foundation made a historic gift of \$25 million to the California Community College system in May 2008 to establish a scholarship endowment for community college students throughout the state. In addition to the gift Mr. Bernard Osher challenged the 110 colleges statewide to raise an additional \$50 million by June of 2011. He committed an additional gift of \$25 million for a total endowment of \$100 million to fund scholarships for California community college students into perpetuity.

Each college was assigned a goal based upon their student population. El Camino College which is one of the California community colleges has a goal of \$973,717. To date they have raised over \$700,000 and are well on their way to reaching that goal. Bill Mooney, the founder of the forerunner of the 2YC₃, was a teacher and an administrator at El Camino College for 38 years. The goal of the Mooney family is \$13,500 (\$4,818 has already been contributed by their family and friends) which when matched will total \$20,000. The William Mooney Endowed Scholarship will then provide \$1,000 every year to an El Camino College student.

Anyone wishing to make a tax deductible contribution to honor and remember Bill for his many contributions to two-year college chemistry education can visit the El Camino College Foundation website at www.elcaminocollegefoundation.org and contact Katie Gleason, Executive Director of the Foundation at kgleason@elcamino.edu or via voice mail at 310-660-6040.

Dr. Joseph Chimeno

WRAB member Joseph Chimeno has reported that he is the author of a textbook, Applied Chemistry and a laboratory manual entitled Laboratory Experiments for Introductory Chemistry. Both the text and the manual are currently available from Linus Publications, Deer Park, NY (866-493-4456). The text's major emphasis is chemical nomenclature. The lab manual introduces the student to basic lab techniques and a variety of experiments including aspirin synthesis, extraction of fat from potato chips and determining the pH of household products. Dr. Chimeno is currently teaching chemistry at Mesa State College in Grand Junction, Colorado.

Midwestern RAB Amy Jo Sanders, Chair

I hope spring has finally reached all of you. We were happy to welcome it here in the Midwest. A great get-away was the recent 187th conference at the City College of San Francisco, CA. It was such a treat to be able to enjoy the California sun and the companionship of fellow chemistry educators at this event. Every time I attend a 2YC₃ conference I am always amazed by how much it changes my teaching for the better. For example our college is about to embark on a new Associate Degree in Chemistry. By attending the session titled "How Can You Leverage and Implement the ACS Guidelines for Chemistry in Two-Year College Programs" I gained so much information about how to make an excellent program. I also gained invaluable contacts who agreed to help our team at Stark State College design the most relevant degree in chemistry. What a wealth of information and resources! Also at this same conference I was able to meet with John Amend of MicroLab. He showed me some really great techniques to use with my General Chemistry lab students for my upcoming lab. I tried them out in my lab on the following Tuesday. What a success! The students were more involved with the pH experiment and really enjoyed their laboratory experience using the MicroLab equipment. Finally I had the opportunity to meet with some very knowledgeable colleagues who were able to give me detailed guidance about writing an NSF-TUES grant. You are now getting the idea! Attending a 2YC₃ conference can bring about big, positive changes in your career. If you are experiencing hardship in obtaining funding for travel, consider applying for a ChemEd Bridges grant to support your attendance. Hope to see you soon. <http://www.chemedbridges.com/index.html>.

Submit News from Your Area!

Do you have interesting news to share with the rest of the 2YC₃ membership? Your RAB chairs welcome and encourage you to send interesting news from your area to them for compilation and submission to the Chemistry Outlook Newsletter. The RAB chair email addresses are:

Western RAB: Dick Gaglione, oggag@aol.com

Midwestern RAB: Amy Jo Sanders, ASanders@starkstate.edu

Eastern RAB: Brahmadeo Dewprashad, BDewprashad@bmcc.cuny.edu

Southern RAB: Ken Capps, cappsk@cf.edu

What's Happening in My Area?

News From the Regional Advisory Boards (RABs)

Eastern RAB

Brahmadeo Dewprashad, Chair

Spring brings respite from the excessive snow of the past winter and proves a pleasant and increasingly colorful backdrop for faculty members' work in the Eastern Region. With the high regional unemployment rate, many are returning to colleges for retraining. Many community colleges in New York City had to close enrollment earlier than usual. There is greater enrollment in chemistry courses and faculty members are challenged to do more with less. As such, there is renewed interest in grant writing and other professional development opportunities. Many members will be attending the ACS Mid-Atlantic Regional meeting (MARM 2011) which will be held in at the Hotel Du Pont, Wilmington, Delaware from April 10-13, 2010. The meeting, whose theme is "Chemistry in the First State," promises to be an educational and exciting event.

The fall 2010 ACS national meeting will be held in the Eastern Region in Boston from August 22-26. The theme for the meeting is "Chemistry for Preventing & Combating Disease." For presentation in the Division of Chemical Education (CHED), abstracts should be submitted to Julianne M. Smist, jsmist@spfldcol.edu; Carmen Valdez Gauthier, cgauthier@flsouthern.edu; or Nicole L. Snyder, nsnyder@hamilton.edu by March 29th. It is a good opportunity to meet ACS colleagues from the Eastern Region and the rest of the country.

There is good news from several colleges. NASA, as part of its Cooperative Agreement Notice, "Global Climate Change Education: Research Experiences, Teaching and Learning," awarded a \$486,919 grant to Dickinson College, which will work with its community college partners—Montgomery County Community College (MCCC), Northampton Community College, Harrisburg Area Community College and Montgomery College in Maryland—to promote interdisciplinary teaching about climate change.

Geology Professor Robert Kuhlman will lead the initiative for MCCC and will be working closely with Neil Leary, director of Dickinson College's Center for Environmental and Sustainability Education. Representatives from participating colleges will serve on a Climate Change Curriculum Task Force that will shape the development of the curriculum and teaching practices. In addition to resources and materials provided by NASA, task force members will be able to utilize information from the Center for Climate System Research at Columbia University.

Southern RAB

Ken Capps, Chair

Transitioning from a community college to a four-year institution is difficult for most students. This includes higher tuition, larger classes, navigating around a new campus and the transferability of credits. In an effort to increase community college transfer student success, the University of Central Florida (UCF) is working with administrators and faculty from local community colleges to align the curricula in various subject areas. This includes chemistry. In May 2006, the Chief Academic Officers from each of UCF's six partner community colleges and administrators at UCF met to discuss ways to align their curriculum. In May 2007, the working group selected chemistry as the second subject (math was the first subject) for which faculty from each institution would work to align the curriculum, share best practices and evaluate assessment tools.

Since that time, chemistry faculty members from the seven institutions (UCF and six community colleges) have met on a semi-annual basis at either the campus of UCF or one of the six partnering community colleges. At each meeting, approximately 20 chemistry faculty members from each institution meet for a half-day workshop to compare curriculum and to discuss issues relating to each chemistry course offered at two-year institutions in the state of Florida. This includes order of topics, textbooks, technology, classroom techniques, teaching aides, student performance challenges, student success rates, integrating lectures and labs, assessment of learning outcomes and more. Other topics discussed have included a chemistry placement/assessment test. Results from various colleges were presented that showed a direct correlation between the placement exam score and course success. Efforts are underway for a collaborative placement exam with a web-based format to be made available for a pilot test (hopefully for Fall 2010).

Ideas are documents not only shared at each individual meeting, but posted on the UCF curriculum alignment website at www.curriculumalignment.ucf.edu. On this site, faculty members have posted the syllabus for each course for the various institutions, as well as sample exam questions and other resources. A discussion board and blog are also available.

As someone that has been actively involved with this process, I encourage other faculty members in their own geographical area to partner with other two and four-year colleges in a similar manner. Such meetings have been very beneficial in ensuring consistency in course offerings and in discussing issues directly affecting student learning. It has also been a great opportunity to meet other faculty members in my area that teach the same subject. I have learned a lot from these meetings and I will continue to meet in an effort to improve student success in central Florida.

Call for applications for the office of Chair-Elect of 2YC₃ for the year 2012

Application for Chair-Elect for 2012 must include:

- Pertinent personal data such as name, college, job title, address, etc.
- Brief statement of pertinent qualification, signed by the nominee.
- A statement indicating a willingness to serve signed by the nominee.
- A statement of support from an appropriate person in the applicant's school.

To be eligible to be nominated an individual must:

- be a two-year college chemistry teacher
- have been a dues paying member of 2YC₃ a minimum of three years prior to nomination
- be a member of DivCHED
- have demonstrated leadership and organizational ability by serving as Chair or Co-Chair for a conference and in one or more of the following capacities:
 - served three years on the COCTYC.
 - served as Program Chair, Local Arrangements Chair, or Exhibits Chair for a 2YC₃ Conference.
 - chaired a sub-committee of the COCTYC.
 - contributed within the past three years two or more ways such as:
 - acted as local industrial sponsor coordinator,
 - chaired a conference section,
 - presented a paper at a conference,
 - moderated a panel at a conference,
 - other ways an individual has contributed

-Applications must be received by the Chair no later than OCTOBER 1, 2010.

-The COCTYC will serve as a nominating/screening committee to generate a slate of candidates.

-Each 2YC₃ member shall vote for one nominee per office and the candidate who receives the greater number of votes shall be declared elected.

-Ballots must be received by the Chair postmarked no later than 12/31/2010.



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The Chemical Heritage Foundation (CHF) is an independent nonprofit organization that fosters an understanding of chemistry's impact on society. The groundwork for its state-of-the-art museum was first laid almost fifteen years ago, when a group of chemists challenged the Philadelphia institution to collect as many as possible of the instruments that proved crucial to the advance of chemistry. The endeavor was a success, and it soon became clear that these objects—in addition to CHF's unparalleled collections of fine art, photographs, papers, and books—could be used to tell the story of chemistry to a broad audience.

The Museum at CHF was unveiled in October 2008, and it received nearly 15,000 visitors in its first year. Its largest gallery is home to a permanent exhibit, *Making Modernity*, which illustrates chemistry's long and complex history in thematic arcs ranging from the origins of alchemy to the role science plays in the modern world. The exhibit's centerpiece is a two-story "video column" of 18 screens playing a 14-minute continuous loop of the periodic table in motion.

A second gallery is home to changing, science-themed exhibits. The first of these was *Molecules That Matter*, a traveling exhibit developed by CHF in collaboration with the Frances Young Tang Teaching Museum and Art Gallery at Skidmore College in Saratoga Springs, New York. *Molecules That Matter* pairs each of ten organic molecules with one decade of the 20th century and showcases the molecules' scientific and sociological implications.

The exhibit currently on display in the changing gallery is *Marvels and Ciphers: A Look Inside the Flask*. With paintings, photographs, books, and cartoons, *Marvels and Ciphers* explores the inevitable social complexity of scientific pursuits—how a single breakthrough can elicit fascination and hope as well as anxiety and fear. To complement the exhibit, and in conjunction with The Secret Cinema, CHF is also hosting screenings that mix rare, vintage educational films about science with classic science-fiction features.

Admission to the Museum at CHF is free and open to the public, and the same is true of many of CHF's events. To learn more visit www.chemheritage.org. In addition to visitor information you will find classroom resources, including online educational tools and publications suitable for middle-school, high-school, and/or college-level courses.

CHF also offers tours of the museum to groups of high-school and college students who are studying or have studied chemistry, and national and Pennsylvania content standards in science education for each of these school programs are available upon request. CHF's most popular tour topics include:

Elements of Knowledge

Where did chemistry come from? How has our understanding of the world around us changed throughout history as a result of chemical exploration? How does chemistry continue to evolve? Trace the development of chemistry from its roots in alchemy through its applications today. In the process, explore how science happens and how the path to discovery is often a winding one.

Chemistry in the Public Eye

Chemistry and its connection to society is a theme that resonates throughout CHF's museum. This program emphasizes how science is consumed by the general public, how chemistry is understood by the masses, and how these topics have changed throughout history. What are the ethical and political issues associated with this ever-changing discipline? How has society influenced the development of chemistry and the molecular sciences in turn?

Creating Chemistry

From its roots in ancient alchemy to its applications in the technologies of today, the development of chemistry can be considered among the greatest human adventures of all time. This program can be adapted to reflect what you're studying in your class, including the chemical side of health, the intersection of art and chemistry, instrumentation, and much more. The sky is the limit!

To schedule a tour for your class, or if you have any questions, please contact Gigi Naglak, CHF's outreach coordinator, at 215.873.8258 or tours@chemheritage.org.

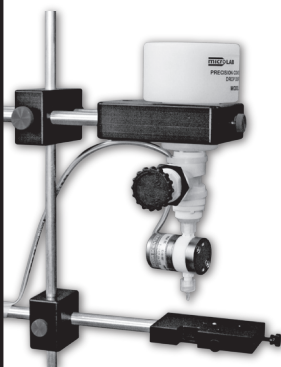
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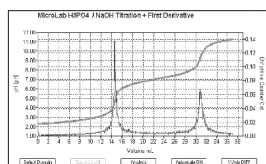
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