



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



Candice McCloskey, Chair

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Notes From The Chair

Candice McCloskey
Georgia Perimeter College – Dunwoody
Dunwoody, GA

Greetings. It will be early Fall semester when you read this, but at the time I am writing, it is mid-June, my summer semester has begun and I will be giving my first summer exam this evening. Summer is a very interesting time to teach, especially Organic Chemistry II which is the terminal chemistry course at my school. Many of the students have made their plans for Fall; perhaps they have been accepted provisionally into a four-year program, and they MUST pass the course for their plans to proceed. Combine their need to pass and do well with the fact of a grueling schedule (ours is a three-hour lecture twice a week followed by a three-hour lab period, for seven weeks) and you have the makings of a desperate classroom atmosphere. Instead of questions about the material, there are questions like how many A's do I usually "give", and what percentage of my students fails.

I can't tell them that the failure rate in Summer is typically double that of the rest of the year, so I exhort them to keep up or risk getting far behind very quickly. Some of them will be dedicated enough to pay attention to my exhortations and work diligently every day as needed. Hopefully those will represent a fair percentage of the class. If so, the classroom atmosphere will be more relaxed and learning can take place more effectively, and a good cycle will be established. If not, well, it will be a long summer.

Summer teaching requires us to keep our students actively learning for a much longer period of time. The rest of the year, my lectures

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2009-2010

185th CONFERENCE (Midwestern)

September 25-26, 2009

Rochester Community & Technical College
Rochester, MNContact: Jason Jadin
Email: jason.jadin@roch.edu**186th CONFERENCE (Southern)**

November 13-14, 2009

Hinds Community College
Raymond, MSContact: Pam Clevenger
Email: pwclevenger@hindscc.edu**187th CONFERENCE (Western)**

March 19-20, 2010

City College of San Francisco
San Francisco, CAContact: Bob Price
Email: rprice@ccsf.edu**188th CONFERENCE/21st BCCE**

Aug 1-5, 2010

University of North Texas,
Denton, TXContact: Thom Jose
Blinn College, Bryan, TX
Email: tjose72@yahoo.com**“Notes from the Chair” ...continued from page 1**

are either fifty minutes or one hour and fifteen minutes long. Three hours requires me to really re-think my normal “chalk talk”. I have not embraced the POGIL method yet, but I think that inquiry-based learning would work wonderfully in this three-hour timeframe. I do use problem solving, but in a less structured way than POGIL. It serves the same end – the students are thinking and learning. But still, it’s a very long time for students to mostly sit and listen. Perhaps this summer will be when I finally try some POGIL in my class.

“Life supporting ideas to reinvigorate your course” is how

it’s put on the website for the 185th 2YC₃ conference in Rochester, Minnesota in late September. This conference will provide examples of ideas that we all can embrace, such as the use of demonstrations, green chemistry, technology, the introduction of biotechnology in the curriculum, and ideas for on-line courses. And maybe even POGIL.

There will be more of the same, beneficial ideas and (always) great networking at the 186th conference at Hinds Community College in Raymond, Mississippi in November. Remember, our new updated brochure can be used with your travel requests for attendance at a conference.

I hope to see you at one of the upcoming conferences.

Upcoming Conferences**-Calls for Papers-****187th CONFERENCE (Western)**City College of San Francisco
San Francisco, CA**March 19-20, 2010****Conference Theme:****Strategies for a New Decade:
Increasing Student Success and Diversity*****See Call for Papers on page 7 of this newsletter for preliminary program information.*****188th CONFERENCE/21st BCCE**University of North Texas
Denton, TX**August 1-5, 2010**www.bcce2010.org**Conference Theme:****A New Decade of Opportunity*****See Call for Papers on page 8 of this newsletter for preliminary program information.***

186th 2YC₃ Conference (Southern) “Sharing Ideas to Promote Chemistry Education”

Hinds Community College
Raymond, MS

November 13-14, 2009

27 Co 58.933 Cobalt nference Information

For registration, lodging information, travel directions, and the latest information on the conference program, please check the 2YC₃ website for an upcoming conference website link. Before that, please contact

Program Chair:	Pam Clevenger	pwclevenger@hindsc.edu	601-857-3869
Local Arrangements:	Jason Webb	jawebb@hindsc.edu	
Exhibits Coordinators:	Lester Harrison	lwharrison@hindsc.edu	
	Lou Anne Williams	lawilliams@hindsc.edu	

*All events will be at the Eagles Ridge Conference Center, 1500 Raymond Lake Rd, Raymond, MS 39154

Friday, November 13

8:00 – 9:00 **Registration, Refreshments, and Exhibits**

9:00 – 9:15 **Welcome and Opening Remarks**
Dr. Clyde Muse, President of Hinds Community College

9:15 – 10:15 **Keynote Address**
TBA

10:15 – 10:45 **Refreshment Break and Exhibits**

10:45 – 11:15 **Presentation Sessions**
A. History of the Community College System in Mississippi
Dr. Ben Fatheree, Hinds Community College, Raymond, MS

B. Proposals Invited

11:20 – 12:00 **Presentation Sessions**
A. ChemEd Bridges
Dr. David Brown, Southwestern College, Chula Vista, CA and Dr. Tom Higgins, Harold Washington College, Chicago, IL

B. Proposals Invited

- 12:00 – 1:00 **Lunch Break and Exhibits**
- 1:00 – 1:55 **Presentation Sessions**
A. Topic TBA
Dr. Libby Hartfield, Director of Mississippi Museum of Natural Science, Jackson, MS
- B. CCLI Grant Writing Information Session**
Presenters TBA
- 2:00 – 2:55 **Presentation Sessions**
A. Round Table Discussion on Community College Chemistry Curriculums in Mississippi
Jason Webb and Lou Anne Williams, Hinds Community College, Raymond, MS
- B. Proposals Invited**
- 3:00 – 3:55 **Presentation Sessions – Proposals Invited**
- 3:00 – 5:00 **Tour of Historic Raymond, Mississippi**
- Shelton House, Chancery Building, St. Mark's Episcopal Church
- 6:00 – 8:30 **Dinner Banquet and Address**
Speaker TBA

Saturday, September 26

- 8:00 – 9:00 **Exhibits, Registration and Refreshments**
- 9:00 – 10:00 **Opening Speaker**
Dr. Mark Michalovic, Bucks County Community College, PA
- 10:00 – 10:15 **Refreshment Break and Exhibits**
- 10:15 – 11:00 **Presentation Sessions**
A. Outreach Diversity for STEM Through Green
Dr. Armando Rivera, East Los Angeles College, Monterey Park, CA
- B. Proposals Invited**
- 11:05 – 12:00 **Presentation Sessions**
A. Topic TBA
Dr. Deb Mlsna, Mississippi State University, Starkville, MS
- B. Proposals Invited**
- 12:00 – 1:00 **Lunch Break and Exhibits**
- 1:00 – 2:00 **Presentation Sessions**
A. ACS Guidelines for Community Colleges
Dr. Armando Rivera, East Los Angeles College, Monterey Park, CA
Dr. Jorge Salinas, Miami-Dade College, Miami, FL
- B. Proposals Invited**
- 2:00 – 2:55 **Presentation Sessions – Proposals Invited**
- 3:30 – 4:00 **Closing Comments**

Continued next page...

LODGING

Reservations at the conference hotels must be made by **October 26, 2009** to secure the conference block of rooms. Ask for the 2YC₃ rate when making your reservation. Clinton, MS, where two of the hotels are located, is an approximately a 10 minute drive from Raymond.

Eagle Ridge Conference Center
1500 Raymond Lake Rd
Raymond, MS 39154
Room Rates: \$69 single, \$79 double (54 rooms at these rates)
1-601-857-7100

Clinton Hampton Inn
493 Springridge Road
Clinton, MS 39056
Room Rates: \$95 king, \$89 double
1-601-925-9393

Holiday Inn Express & Suites
495 Springridge Road
Clinton, MS 39056
Room Rates: \$89 double
1-601-708-0400

REGISTRATION

Registration for the conference is by mail-in form. A conference website is forthcoming and you will be able to find a link to it on the 2YC₃ website when it is available. To register before that, and for more information about the conference, please contact **Program Chair: Pam Clevenger, pwclevenger@hindsc.edu or phone 601-857-3869**. Send in the form with your payment. Please note that your registration is not complete until your payment is received.

About Hinds Community College and Raymond, Mississippi

Raymond, Mississippi is rich with history and the home of Hinds Community College. The town is approximately 8 miles southwest of Jackson, MS where the Jackson – Evers International Airport (JAN) is located. The Mississippi Museum of Natural Science and the Mississippi Museum of Art in Jackson depict the state's natural beauty and diverse culture. Stay in Raymond at Eagle Ridge Conference Center or enjoy one of Raymond's historic Bed and Breakfasts. While you are in Raymond, enjoy the sites associated with its antebellum past. Located 45 miles to the west is Vicksburg situated on the bluffs on the Mississippi River with more southern charm. Located in the center of Raymond is Hinds Community College. The college is the largest community college in the state of Mississippi serving more than 10,700 credit students each fall semester. The Hinds Community College family welcomes you to our Raymond Campus.

Bubbling Over with Excitement?

An Invitation for Submissions to the 2YC₃ Chemistry Outlook

From the Editor: I would like to invite any and all members of 2YC₃ to consider submitting interesting and relevant articles, commentary, announcements, job postings or photographs for inclusion into the Chemistry Outlook. As our organization grows, the Outlook is hoping to grow as well, and it can serve as a convenient means of sharing information with your colleagues around the country. Do you have an interesting classroom activity you'd like to share? How about a demonstration or a teaching technique that you think works especially well? In the past we have published conference commentary, "It Works for Me", photographs of students excelling at presentations and workshop announcements. Submissions may be published on an editorial appropriateness and space-available basis, and should be typed in Times New Roman font, single-spaced, 12-pt.

Deadlines for submissions:

Vol I (due out mid-Feb): Dec. 15
Vol II (due out mid-May): March 15
Vol III (due out mid-Sept): June 15
Vol IV (due out mid-Oct): July 15

187th 2YC₃ Conference Announcement and Call for Papers

Strategies for a New Decade: Increasing Student Success and Diversity

Friday, March 19 – Saturday, March 20, 2010
(Prior to the ACS 2010 Spring Meeting in San Francisco)



City College of San Francisco

To Submit Papers or Request Information,
Contact Bob Price, Program Chair
415-239-3515, rprice@ccsf.edu
Mailbox S-22, City College of San Francisco,
50 Phelan Avenue, San Francisco, CA 94112



Tentative Sessions/Symposia/Workshops

Inquiry-Based Learning
Teaching GOB—Panel With Textbook Authors
Diversity—Addressing Achievement Gaps
Grant Overview for Community Colleges
Green Initiative for Chemistry Labs
Issues in Distance Learning
Chemistry with Kids
Technology in Chem Ed
NMR Workshop
Calibrated Peer Review Workshop



21st Biennial Conference on Chemical Education A New Decade for Opportunity

www.bcce2010.org

August 1-5, 2010

University of North Texas, Denton, TX

The Biennial Conferences on Chemical Education (BCCEs) are the premier conferences on chemical education in the world. The ACS Division of Chemical Education (DivCHED) sponsors the BCCEs and the University of North Texas (UNT) in Denton will host the upcoming conference, in collaboration with Collin County Community College. The BCCE is coming of age. This will be the 21st BCCE and it is happening the same year as the Centennial Celebration of the founding of the Department of Chemistry at UNT. This BCCE also marks the 188th meeting of the 2YC₃.

If you've never attended a BCCE, now is the time! The BCCEs are the largest gatherings of chemical educators in the world, designed for all levels of chemistry: secondary school, 2-year college and university. This conference emphasizes the improvement of chemistry education and modern developments in chemistry and chemical education, and is highly respected in the chemical education community. The commitment of UNT to chemistry education is exceptional, and we have an excellent working relationship with the City of Denton community and the surrounding venues in the Dallas-Ft. Worth Metroplex. The ₂₀Ca₁₀Ne Roundup Committee is working hard and would like to take this opportunity to extend our Texas hospitality to you!

Call for Symposia and Workshops

The 21st BCCE 2010 will focus on a wide range of critically important issues in chemical education that address the complex and subtle relationships of teaching, learning and research with particular focus on what will be happening in the next decade. You do not have to be a member of the ACS or DivCHED to attend or to present at the BCCE, but you do need to register. Proposals for symposia and workshops will be accepted through the 21st BCCE Website: <http://bcce2010.org>. The Two-Year College Chemistry Program co-chairs **Thom José and Susan Shih** (tjose72@yahoo.com) would like to hear your suggestions for program ideas that specifically relate to the needs and issues of faculty in two-year institutions. We want this BCCE to have a strong program for the 2YC₃ membership, but we need to hear from you as to what you need and what would be useful to you. So this is your opportunity to speak up or to submit a symposia proposal of your own. Any questions, program ideas, or general suggestions for the BCCE program chairs can be sent to the BCCE via email, program@bcce2010.org.

To receive the most current information and deadline notifications relating to the Conference, please join the 21st BCCE listserv by adding your name to our list: <http://chemed.tamu.edu/bcce2010>.

Conference Registration/Lodging/Travel

Early registration should begin March 2010 through the 21st BCCE Website. Early registration fees are \$250. At the close of early registration a \$50 fee will be added. Housing will be available in several of our new residence halls and at several local hotels. The Holiday Inn (near campus) has agreed to honor the Texas State rate for hotels that will be set in September. Dallas/Fort Worth International Airport and Love Field are less than one-hour trip from Denton. The Roadrunner shuttle service will be available for participants.

For specific information about the conference, visit and bookmark the 21st BCCE Website: <http://bcce2010.org>. This site will be continuously updated with information pertaining to the technical program, registration, housing, and social events as we approach August 1, 2010.

SYMPOSIA PROPOSAL SUBMISSION DEADLINE IS NOVEMBER 6, 2009
WORKSHOP PROPOSAL SUBMISSION: DEADLINE IS DECEMBER 11, 2009
ABSTRACT SUBMISSIONS: NOVEMBER 23, 2009 – FEBRUARY 12, 2010

Y'all come on down now, ya hear, and let's raise a little CaNe in Texas!

Travel Grant Opportunity for 2-Year College Faculty!!
Applications Are Being Accepted for
The Dorothy and Moses Passer Education Fund

Editor's note: This exceptional funding opportunity is open to 2-year college faculty to help fund a specific goal toward which they may be working. For example, while trips to conferences can't be funded, financial support that is not available from the faculty member's college may be provided for travel to workshops, etc. Two-year college faculty have a great advantage of teaching first generation/underserved populations/non-traditional students and they should make note of that in their application.

This Fund was established by a generous donation of Dorothy and Moses Passer. Moses (Mike) Passer was for many years the head of the ACS Education Division.

The Fund supports grants to provide support for teachers in programs at two- and four-year colleges or universities that do not have any advanced degree programs in the chemical sciences. The awards are to support continuing education activities that must be directly related to the applicant's teaching and must take them away from their campus. The applicant must be a full time faculty member at his or her institution. The applications are reviewed by a committee. There is no application form but the application must include a description of the proposed activity and how it relates to his/her teaching with dates, locations, titles and contacts; a brief description of the applicants institution and department; a short curriculum vita; an itemized estimate of expenses, amount of aid requested and sources of all supplemental funds. No support will be given for general attendance at national, regional or local ACS meetings nor for any sabbatical support.

Closing dates are three times each year: **January 1, April 1, and September 1.** All applications must be received electronically. For further information or inquiries contact **Richard Jones, richard.jones@sinclair.edu**; mailing address: **Sinclair Community College, Dayton, OH 45402**

The Dorothy and Moses Passer Portfolio Committee
Announces Four Awards
For the April 1, 2009 Deadline

- Deanne Oppermann of Southwestern Community College to attend the Center for Workshop in Chemical Sciences workshop, "Material Sciences and Environmental Chemistry," May 24-29, 2009 in Hampton, VA.
- Susan Sutherland of Green Mountain College to attend the Gordon Conference on Chemistry Education Research and Practice, June 21-26, 2009 at Colby College in Waterville, Maine.
- Hua-Jun Fan of Prairie View A&M University to attend the Center for Workshops in Chemical Sciences workshop, "Material Sciences and Nanotechnology for Chemists," July 12-17, 2009 at Beloit College, Beloit, Wisconsin.
- Jim Schneider of Portland Community College to attend the Center for Workshops in Chemical Sciences workshop "Material Sciences and Nanotechnology for Chemists," July 12-17, 2009 at Beloit College, Beloit, Wisconsin.

Bridging Community College Chemistry Faculty
into the National Educational Community

This is an invitation for you, a community college chemistry educator, to engage with the national community of chemical educators.

The NSF funded grant that we call **ChemEd Bridges** has given us the resources to create symposia and participatory workshops at ACS and BCCE meetings. These are specifically designed to welcome and to meet the needs of community college chemistry faculty and to facilitate the creation of new collaborative efforts between two-year and four-year colleges.

Travel Support for Community College Faculty

From our grant we can award funds to support your attendance at upcoming ACS and BCCE Meetings. Details and applications are at <http://chemedbridges.weebly.com/>

Presenting at these meetings will be community college faculty with experience in educational innovation and implementation, who will serve as role models and provide mentoring for other faculty. Faculty from two-year and four-year colleges who want to disseminate tested innovations will be here looking to meet interested community college faculty.

What's Happening in My Area?

News From the Regional Advisory Boards (RABs)

Western RAB Dick Gaglione, Chair

A National Science Foundation Grant was awarded in 2007 to Cañada College (Redwood City, CA) and Gene: Connection-Chem: Connection (GCC), a High School Science outreach program from the San Mateo County Office of Education. This multi-focused project, entitled "Chemistry: A Pipeline to 21st Century Careers," seeks to increase the recruitment, retention and success of students in the chemistry career pipeline, particularly those from underrepresented groups, to produce the technological workforce needed to fill the demands of their local industry. The project team which has been working to create long lasting alliances among high schools, community colleges, four-year colleges, workforce development agencies, local industry and the community is composed of the following professionals:

- Jeanette Medina, Project Director
- Jeri Eznekier, Asst Project Director
- Kim Marie Hansen, Gene: Connection Program Head
- Melody Yang, High School Chemistry Outreach Coordinator

Some recent activities of the Cañada project team are:

- On February 6, 2009, Cañada College and GCC sponsored a Professional Development Day for San Mateo Unified High School District Science Department for 40 science teachers by providing campus facilities and lunch support. GCC Chemistry Outreach Coordinator conducted a professional development workshop on spectrophotometry and how it can be used to analyze the ink used to write a ransom note and solve a crime! An exit survey showed that the teachers were very satisfied with the quality of the professional development day and thought they learned valuable information and tools from their participation.
- On February 19, 2009 the ACS Santa Clara Valley Section held its monthly dinner meeting at Cañada College. In addition to the monthly business the meeting featured a current High School student, Anshul Samar, who created and commercialized a chemistry card game named Elementeo. Anshul shared his story and taught everyone (including 15 Middle School and High School students) how to play the game and had an Elementeo tournament.
- On February 25, 2009 approximately 25 Middle School GATE (Gifted and Talented Education) students visited Cañada College to participate in a Chemistry workshop. The students became forensic scientists for the afternoon and using advanced chemical analysis, they were able to isolate the ink used in a "would be" ransom note, thus making it possible to identify the culprit. Feedback from students, teachers, and parents was very positive.
- On February 26, 2009 Dr. Jeanette Medina participated in an open career fair at Capuchino High School, San Bruno, CA. At this event students came to gather information pertaining to various fields of study and to research colleges and universities that best match their career goals.
- From March 13, 2009 thru May 1, 2009, an Honors Chemistry Guest Lecture Series on the Cañada College Campus brought industrial science professionals to present an overview of the steps necessary to translate experimental bench work into a profitable drug. Included in the series were: Dr. Bonnie Charpentier, VP Regulatory Affairs, Metabolex, Inc., Dr. Maria Wilson, Senior Biology Scientist, Metabolex, Inc., Dr. Larry McGee, Chemistry Research Director, Amgen SF, Dr. Daniel Daraighi, Director Molecular Pharmacology, ChemoCentryx.

Southern RAB Mark Matthews, Chair

The Southern RAB is pleased to present Ken Capps as our new regional chair. Ken is currently an associate professor at Central Florida Community College in Ocala, Florida. Those who attended the 184th meeting in Salt Lake City may recall Ken's outstanding presentation of his time spent as a Fulbright Scholar in South Africa. There are still a couple of spots available on the Southern RAB. Anyone interested in serving as a board member can talk to Ken (cappsk@cf.edu) or Michaelleen Lee, our 2YC₃ RAB coordinator (rabcoordinator@2yc3.org).

We're also happy to have the 2YC₃ return to the Southern region with the 186th conference in Hinds Community College in Raymond, MS. Anyone wishing to present should contact Program Chair Pam Clevenger (pwclevenger@hindsc.edu) as soon as possible. For registration information, please visit 2yc3.org/meetings.

What's Happening in My Area?

News From the Regional Advisory Boards (RABs)

Eastern RAB Brahmadeo Dewprashad, Chair

Summer is a pleasant time in the Eastern Region. Mild regional weather and the kaleidoscopic radiance of beautiful flowers provides a fitting backdrop for reflection and planning for the new academic year. There is some optimism that the regional economic conditions are improving and that two year colleges in the region will not likely see severe funding cuts.

Many members will be attending the 238th ACS National Meeting & Exposition will be held on August 16-20, 2009 in Washington, DC. The overarching multidisciplinary theme for this meeting is "Chemistry and Global Security: Challenges and Opportunities." It would be a good opportunity to network with colleagues from around the nation. In addition, members of the Connecticut Valley Section of the ACS will be hosting the 36th Northeast Regional Meeting (NERM2009) in Hartford, CT October 7 -10, 2009. Meeting details and be obtained from ACS website at <http://portal.acs.org/portal/acs/corg/content>. Also, nominations are open for the "The E. Ann Nalley ACS Northeast Region Award for Volunteer Services to the American Chemical Society". The nomination forms can be downloaded from <http://membership.acs.org/n/nerm/> and additional details can be obtained from Denise.Rau@trincoll.edu.

There is good news from the Borough of Manhattan Community College (BMCC). The college has started a program in "Science for Forensics". Students who complete the A.S. degree in this field are guaranteed admission to John Jay College's Baccalaureate Forensic Science program. In addition, the college has received a Title V grant to provide support services for students in the program. A key faculty involved in this initiative is Chemistry Professor Charles Kosky. In addition, Angeline Elliot, a student of BMCC won "Best Presenter Award for the "Math and Science Division" at the "2009 Beacon Conference for Scholars at Two Year Colleges". The meeting was held on June 5th, 2009 at Montgomery College. Angeline was mentored by chemistry faculty Brahmadeo Dewprashad.

Midwestern RAB Amy Jo Sanders, Chair

We hope everyone is having a safe, restful summer. The Midwestern RAB would like to welcome the very outgoing Bal Barot, Ph.D. to our board. Dr. Bal Barot has been an instructor of chemistry for 16 years at Lake Michigan College. Recently, he attended an NSF sponsored workshop in Environmental Chemistry with two other chemistry instructors from two year community colleges in Michigan. The conference was held at Hampton University this summer (May 23-30). This coming fall, a new local association and non-profit organization for Michigan Community College Chemistry Instructors is being planned under the leadership of Bal. He is being supported by West Shore Community College, Lansing Community College and North Central Community College of Michigan. The propose of the organization is an annual meeting to exchange ideas, touch base with each other and compare notes of the academic world of chemistry. Bal earned his Ph.D. from Oklahoma State (1982-84) and since has taught in two year community colleges in Colorado and Michigan. Every summer he spends a week grading AP Chemistry at the University of Nebraska. We are very fortunate to have Bal on our RAB.



We are getting excited about our upcoming conference in Rochester, MN this fall, and hope to see you all there!

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

Southern RAB: Mark Matthews, matthewsm@durhamtech.edu

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

Midwestern RAB: Amy Jo Sanders, ASanders@STARKSTATE.EDU

In Remembrance of William T. (Bill) Mooney Jr.

by Dick Gaglione and Kenneth Chapman

William T. Mooney Jr. died on February 19, 2009 at the age of 82 after a distinguished career as a Professor of Chemistry, Science Dean and Consultant. Bill Mooney's leadership in two-year college education was a significant factor in establishing the associate degree in science as a legitimate pathway for a career in the chemical sciences and engineering.

Bill was born in Roseville, CA. He received an A.B. degree in Physics from the University of California, Berkeley in 1946, an M.S. in Education in 1947 and an M.S. in Chemistry in 1950 from Stanford University. During and after World War II he served as a member of the U. S. Navy Reserve. He was a Professor and Dean of Science at El Camino College in Torrance, CA from 1950 to 1988. In 1961 he founded the Junior College Roundtable Conference, which in 1965 was renamed the Two Year College Chemistry Conference which became the forerunner of the Two Year College Chemistry Consortium (2YC₃) and the Committee on Chemistry in the Two Year College (COCTYC) which today functions as a Committee of the Division of Chemical Education of the American Chemical Society (ACS). As the Chair of this group for a decade he organized twenty-six conferences throughout the country during a time when the number of two-year colleges and the number of faculty in these colleges increased significantly. To meet the needs of this increasing group of college educators he initiated in 1964 the publication of conference proceedings with the assistance of Temple University which became in 1971 a bi-yearly Publication called Proceedings from 2YC₃ and Papers of Special Interest.

In 1967 he was the first two-year college faculty member to be awarded the prestigious National Catalyst Award by the American Chemical Council (ACC), formerly known as the Chemical Manufacturer's Association (CMA). He continued to be an advocate for inclusion of two-year college educators as yearly recipients of this award. In 1971 and 1974 he was listed as one of the Outstanding Educators in America. In 1985 he served as Chair of the ACS Southern California Section and also served as Chair of a Task Force on ACS Involvement in Two-Year Colleges which led to the first issue of the ACS Guidelines for Chemistry and Chemical Technology Programs in Two-Year Colleges. In 1986 he returned to 2YC₃ to craft and preside over the Program for the 91st 2YC₃ held in Palatine, IL to celebrate the 25th Anniversary of 2YC₃ and in 2001 was asked to serve as the Banquet Speaker for the 2YC₃ Meeting held in Las Vegas, NV to commemorate the 40th Anniversary of the organization.

In 1987 he directed the Center for Consulting and Professional Practices and helped consultants build practices by becoming client magnets through capitalizing on their expertise and experience, identifying and developing consulting opportunities, and operating their practice as a business. He was the premiere Southern California Source of ideas and information on consulting.

In 2007 he was inducted into the El Camino College Hall of Fame. He was an emeritus member of the ACS and a member of the Board of Regents of the California Lutheran University of Thousand Oaks, CA. He is survived by his wife of 58 years, Margery, his sons, William, Robert and Donald and five grandchildren. He will long be remembered for his amazing energy and overwhelming respect for two-year college chemistry faculty. He coaxed, cajoled and cannonaded with statistics ACS leaders until they understood that two-year colleges were important to the future of chemistry and had earned the right of support from both the Society and the federal government. There are many who believe that "if there had never been a Bill Mooney, the two-year college chemistry education enterprise would have had to invent him."



How we learn

Brahmadeo Dewprashad, Dept. of Science, Borough of Manhattan Community College

Instructors at two-year colleges are noted for their teaching passion and dedication to facilitating learning in their students. Student evaluations, informal student feedback, instructor observations and peer observations all provide us with feedback on our teaching and help shape it. Student learning, though, is often assessed from tests and informal observations that we ourselves make and thus might not give a complete picture of how well our teaching translates to learning. As such, it is probably worthwhile to reflect on how our teaching addresses to what is known about how students learn.

Students come to the classroom with a range of prior knowledge and beliefs, some of which are incomplete and even inaccurate (Chi et. al. 1994). It is through this prism that they view new concepts presented to them. As new knowledge is constructed from existing knowledge, instructors need to use students' prior beliefs and understanding on which to build new knowledge (Bransford et. al. 2002). In addition, instructors need to recognize the incomplete/false understandings, the basis for these misconceptions, and set about addressing (Criswell, 2008).

Students come to us with the expectation that we would help them develop a competence in specific disciplines such that they can, not only know and understand core facts and concepts, but be able to recall and apply these to solve new problems. Such in-depth understanding of concepts can be facilitated by providing exposure to students of coherent bodies of knowledge in a variety of settings, and by training students in how to apply such knowledge to solve new problems. As such, we should not only strive to engage students, but should take every opportunity to help students develop their skills at applying concepts to solve new problems. This can be best done by providing extensive practice at this.

Students' motivation to learn is a key factor that determines how much time they put into the endless practice required to gain in-depth knowledge of concepts. Although motivation is often considered an intrinsic factor, instructors can and do play a great role in kindling motivation. Students are highly motivated to learn when they understand how their learning can be directly used to help others, particularly those in their communities (McCooms 1996, Schwartz et. al. 1999). Use of case-studies, real-life examples, service learning and community-based research can each play an important role in motivating students to learn.

When students reflect on their own learning, they tend to recognize deficiencies and work to correct such deficiencies. Such practices not only help them do well in a specific course but help them to develop to become lifelong learners. Instructors can and should help students develop such metacognitive skills; they can do so by modeling such practices, and practicing students in undertaking the same.

Student's perception of their abilities does affect their persistence and performance (Dweck 1989, Dweck and Legget 1988). As such, instructors should pay attention to the progress of each student and tailor tasks to a manageable but challenging level. Instructors should get to know each student in order to have an understanding of students' skill levels and interests. Such knowledge can be used to tailor activities that would connect with individual students, accentuate their strengths and intrigue them enough that they venture beyond their intellectual horizons.

It has been proposed that intelligence is expressed in multiple forms, and that each one of us has particular strengths and weaknesses in one or more of these. The proposed forms of intelligence are: linguistic, logical, musical, spatial, bodily kinesthetic, interpersonal, intrapersonal and naturalistic (Gardner 1983, 1991 and 1997). Traditional instruction and assessment tend to focus on the first two listed intelligences. There is a movement among educators to modify curricula and instruction to target a wider range of these intelligences. It is probably worthwhile to follow the successes in this area and adapt and use in your classroom. Continual learning in this and other areas of teaching and learning are a must. These sentiments are probably expressed best by Confucius in the words "Acquire new knowledge whilst thinking over the old, and you may become a teacher of others."

As educators, we are entrusted with a pivotal role in a sacred ritual; one that likely began in time immemorial. We acquire knowledge, add to it and teach the next generation to do the same, and to continue the cycle. Teaching is the linchpin for the success and growth of communities and societies. How well we do our job requires us to understand how students learn, and to tailor our teaching to facilitate learning. It is worthwhile to bear in mind that we are entrusted not only with instructing the next generation but with facilitating their learning also.

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