

Chemistry Outlook

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



Bill Haley, 2003 Chair

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Bill Haley
San Antonio College
San Antonio, TX 78212-4201

This is my last chance at getting this column right since my term of office expires December 31 and this is the last issue of Chemistry Outlook for the year! It has been a great year because of the contributions of many people. First of all I would like to thank the members of the executive committee who have made my life much easier because of good advice based on their knowledge and experience. Carol Handy has done a great job of getting the Chemistry Outlook published in a timely fashion in spite of many obstacles and problems which arise on the way to the deadlines for each issue (like when the Chair's Notes are late).

The next group I would like to thank is those stalwart members who have taken on the challenge of putting on our conferences this year. The year started off with the great conference (162nd) at the City Park Campus of Delgado Community College in New Orleans. It was chaired by Tom Gruber and assisted by his lovely wife. Tom is a great guy to know and he has been an outstanding supporter of 2YC₃ for many years. He has served as chair of the organization and also has chaired other conferences in the past. Carol White, another past chair, had the job of heading up our symposium at CHEMED 2003 at Auburn University in July. She was also a presenter and did a great job all around. Wheeler Conover and Sue Ballard have been working through the usual problems in preparing their first conference (164th) at Elizabethtown Community College in October. They seem to have things in hand. Dottie Stumpf has two co-sponsors for her November conference (165th), the New England Association of Chemistry Teachers and the University of Massachusetts at Lowell.

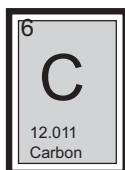
I would also like to thank John Kenkel for his support of 2YC₃ by organizing the Symposium on "Implementing Modern Chemical Education in the Two-Year College" at the ACS Fall 2003 meeting in New York. In addition John is coordinating 2YC₃ involvement at the 18th Biennial Conference on Chemical Education at Iowa State University in late July 2004.

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Conference Calendar

2003-2004 Academic Year

165th Conference (Eastern)

November 14-15, 2003 Middlesex Community College
<http://www.middlesex.cc.ma.us/2yc3>

Contact Lowell, MA
 Dotty Stumpf
 Email: stumpfd@middlesex.cc.ma.us

166th Conference (Western)

March 26-27, 2004 Right before the ACS meeting in
 Anaheim, CA - March 28-April 1, 2004
 Please check the web for details.

167th Conference (Midwestern)

July 18-22, 2004 Biennial Conference on Chemical
 Education, BCCE, Iowa State U., IA
<http://www.chem.iastate.edu/bcce/>

Contact John V. Kenkel
 Email: jkenkel@southeast.edu

168th Conference (Western)

Early Fall, 2004 Edmonds Community College
 Lynnwood, WA

Contact: Mary O'Brien
 Email: mobrien@edcc.ctc.edu

169th Conference (South Eastern)

November 10-13, 2004 SE Regional ACS meeting
 Research Triangle Park Area, North Carolina

Contact Clarita Bhatt
 Email: ccbhat@aol.com

Remember to check the web for information on future meetings! <http://2yc3.org> or
<http://2yc3.vinu.edu/>

Attention All 2YC₃ Members!

All 2YC₃ members please watch for the renewal notices that will arrive toward the end of November. You will also receive a ballot in this mailing. Please consult the included qualifications of the candidates and vote for the candidate of your choice. You can also check the 2YC₃ website for updated information on the candidates.

I hope those reading this newsletter have already joined 2YC₃ but, if you haven't, than by all means, go to the form in this newsletter, cut it out and immediately send it and a check for \$15 to Dolores Aquino. If you are not already a member of the Division of Chemical Education you can join both 2YC₃ and DIVCHED for \$30.

Next go to one of our conferences! Just attend or attend and make a presentation or help out in some way. When you register at the conference ask if there is a job that needs to be done. Attendance at a conference gives you a chance to connect with other community college teachers, high school teachers and university teachers as well. You will also get to meet authors of textbooks and book publisher representatives, scientific supply company representatives and representatives of instrument companies. All of that and the conference registration fee is generally only \$15! We encourage you to support our Industrial Sponsors who do an excellent job of keeping us up to date with information on their books, supplies, and instruments. A listing of our Industrial Sponsors was in the previous issue of this newsletter. You might next choose to become a member of a Regional Advisory Board and help out with a conference in your region. Someday you might even want to chair a conference. You will find that you get a great deal of support from the 2YC₃ organization which makes putting on a conference not quite as hard as it first appears.

I would also ask you to approach your Administration about becoming a College Sponsor for only \$25 per year. It is the least expensive institutional membership you can find. You will notice the listing of the current College Sponsors in this issue of the newsletter.

Finally, those of us on your executive committee would like to know what you feel we are doing right and what we might be doing wrong. We are always interested in improving the organization and we really would like to hear from you. We have been recently concerned about the fact that attendance at the conferences have been down for the last year and one-half. Is it the economy or the result of 9/11/01? We know that in many colleges the chemistry department consists of only one full-time chemistry teacher and perhaps one or two other part time teachers. That makes it difficult for you to feel like you can miss two days of class to attend a conference. How else could we serve you? Our addresses and email addresses are listed in each issue and direct your comments to any of us. We will work on solutions to any problems at upcoming executive committee meetings and in our informal email conferences. These issues can also be addressed at the general meetings of all members which are held at each conference.

I hope your fall semester or quarter is a great one!

2003 COCTYC AND SUPPORT STAFF
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American Chemical Society
2003 Roster of Committee Members

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2YC₃ World Wide Web Page: <http://2yc3.org> or <http://2yc3.vinu.edu/>, Jay Bardole, WebMaster

2YC₃/Division of Chemical Education Joint Membership Form

This is a special offer for 2YC₃ members who are not already members of the Division of Chemical Education. The dues for 2YC₃ are \$15.00 and the dues for the Division of Chemical Education are \$20.00. If you are not now a member of the Division of Chemical Education, you can join the Division and renew your membership with 2YC₃ for only \$30.00, a savings of \$5.00. Renew my 2YC₃ membership ____ I wish to join DivCHED as: ____ a Member (ACS Members only) ____ an Affiliate (non ACS Members)*

*affiliates have all membership privileges except voting and holding elective office

Your Name: _____

Home Address: _____
Street City, State Zip Code

Work Address: _____
Street City, State Zip Code

College Phone: _____ Email: _____

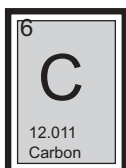
Send 2YC₃ Newsletter and CHED Newsletter to Home _____ Work _____
Send ACS Member Form Yes _____ No _____

2YC₃ Membership Information: Are you a
_____ Two-Year College Teacher? _____ Four-Year College Teacher?
_____ High School Teacher? _____ Other

Please send your check, payable to 2YC₃, for \$15 (2YC₃ only) or \$30 (joint membership) to: Dolores C. Aquino, San Jacinto College Central, 8060 Spencer Highway, Pasadena, TX 77501-2007

165th 2YC3 Conference
Middlesex Community College, Lowell, MA
November 14-15, 2003

*Integrating Food Chemistry, Health Science and Technology
into the Chemistry Curriculum*



Conference Program

<http://www.middlesex.cc.ma.us/2YC3>

Program Chair: Dorothy Stump
Middlesex Community College
Springs Road, Bedford, MA 01730

The theme of the 165th conference is Food Chemistry, Health Science, and Technology. The conference program is organized around three major areas:

- 1) Chemical Interactions between Health and Diet
- 2) Innovative Laboratory Experiments
- 3) Use of Technology and Active Learning in Chemistry Education.

Massachusetts' wealth of educational and industrial institutions have contributed mightily to a program balanced between cutting edge research and how-to methodology.

For the first time, the conference brings together three groups with a common mission: 2YC₃, New England Association of Chemistry Teachers (NEACT), and the Science Teachers Area Resource Sharing (STARS), as well as two sister institutions, Middlesex Community College and the University of Massachusetts Lowell (UmassLowell)! We hope you will join your colleagues to learn and share in historic Lowell, often referred to as the Venice of America. Come earlier, stay later...there's a lot to do here.

Professional Development Points (PDPs) and Continuing Education Credits (CEUs) will be available.

Friday, November 14, 2003

- 8:15-10:00 **Registration and Complementary Continental Breakfast**
 Doubletree Hotel Belvedere Room
- 9:00-9:15 **Welcome and Opening Remarks**
- 9:15-10:00 **Panel: The Controversy and Chemistry of Genetically Modified Foods**

- 10:00-10:30 **Refreshment Break - Exhibits Area at Middlesex Lower Cafeteria**
- 10:00-4:00 **Registration and Exhibits - Middlesex Lower Cafeteria**
- 10:30-11:45 *The Challenges of Determining Mercury Contamination in Biological Organisms: A Platform to Demonstrate Abstract Chemistry Concepts:*
Presentation and Demonstration Using Cold Vapor AA and freshly caught fish!
Barbara A. Eddy, Chemist, Wall Experimental Station, Mass. Dept. of Environmental Protection;
Adjunct Professor, Middlesex Community College
- 10:30-11:15 **Concurrent Sessions**
A. *Developing Students' Deep Understanding of the Scientific Method*
Dr. Judith Kelley, UMassLowell

B. Grant Writing Panel *How to Follow the Rainbow*
- 11:15-11:45 **Concurrent Sessions**
A. *Using Webquests to Teach Chemistry*
Mark Michalovic, Chemical Heritage Foundation (Tentative)

B. *How Safe is Your Laboratory? Tips for Safe Laboratory Design*
- 11:45-12:15 **Concurrent Sessions**
A. *Cutting Edge Research: Is Diet a Major Factor in the Occurrence of Alzheimer's Disease?*
Thomas B. Shea, PhD, Center for Cellular Neurobiology and Neurodegeneration Research,
UMassLowell

B. *An Interdisciplinary Team Taught Course: Forensics and Chemistry*
Paul Patev, Professor of Biotechnology, Middlesex Community College
(tentative)
- 12:15-1:30 **Lunch and walk to Jack Kerouac Park (two minutes from campus).** Enjoy Lowell's ambience and our numerous ethnic restaurants.
- 1:30-4:45 Tour of U.S. Army Natick Research, Development and Engineering Center (Natick Laboratories) (limit 14)
- 1:30-4:00 Tour of the Nuclear Research Reactor at the UMassLowell (limit 20)
- 1:30-2:00 *Cutting Edge Research: Can Carotenoid Supplementation Increase Risk of Lung Cancer and Total Mortality? Results from Epidemiological and Animal Studies that Every Smoker Should Know.*
Heather Mernitz, Tufts University Nutrition and Cancer Biology Laboratory., Friedman School of Nutrition and Public Policy
- 2:00-2:30 **Refreshments in Exhibit Area**
- 2:30-4:15 Workshop: *Engaging Students with Active Learning*
Jessie Klein, PhD, Margie Larrousse, Middlesex Community College
- 6:00 - 7:00 **Social Hour - Wine, Cheese and Conversation**

7:00 - 9:00 **Banquet and Presentation:** *Chemistry and the Evolution of Lowell - From Textile Chemistry to Information Technology to a Center for Arts and Culture*

Saturday, November 15, 2003

8:15-4:00 Registration in Exhibits Area - Middlesex Lower Cafeteria

8:15-9:00 Continental Breakfast - Middlesex Lower Cafeteria

9:00 -9:45 Concurrent Sessions

A. *Writing to Learn Using Calibrated Peer Review with Web-Based Technology*
Todd Wimpheimer, PhD, Department of Chemistry and Physics, Salem State College

B. *The Latest Research on Feeding the U.S. Military*
Jeannette Kennedy, Food Technologist, U.S. Army Natick Research, Development and Engineering Center.

9:45-10:15 Break and Exhibits.

10:15-12:15 Concurrent Workshops

A. *What's All the Fuss about Fats? Teaching General Chemistry in the Context of Dietary Fats and Human Health*

Heather Mernitz, Nutrition and Cancer Biology Lab, Tufts University, Friedman School of Nutrition Science and Policy

B. *The Titration Project: Find Meaning and Have Fun Learning Acid/Base and Redox Chemistry*

Cary Kilmer, Research Experience for Teachers (RET) Program at M.I.T. Langer Laboratory

12:15- 1:30 Lunch and Concurrent Meetings of 2YC₃ and NEACT

1:30- 3:30 *Determination of Acid and Enzyme Activity as Indicators of Processing Efficiency in Food*
Sarmad Saman, PhD, Massachusetts Bay Community College

1:30-2:30 *Engaging Students in Inquiry-Based Science Using "Science and Our Food Supply", an Interactive Curriculum.*

Lanny Whitten, Kennebunk High School and NEACT Northern Division Chair

2:30-3:15 Panel and Discussion: *Hybrid (Face-to-Face and Online) Courses: Teaching Chemistry Using Technology:*

3:15-3:45 Discussion and Closing Remarks

Open Discussion: *How can our organizations collaborate to build a chemistry educators community? What value have you derived from attendance at 2YC₃ and NEACT and STARS meetings? What do you want to see in the future?*

For all those who are interested, we plan to have dinner together on Saturday in Lowell at one of Lowell's many interesting restaurants (kids welcome). If you are game for more activity after dinner we also have an excellent repertory theater, good music clubs, and the Lowell Lock Monsters, a professional hockey team. .On Sunday morning, we can explore the historic Concord and Lexington area or take an interesting tour of the Lowell area before you head back to parts unknown.

Visit <http://www.middlesex.cc.ma.us/2YC3> for abstracts and updates to the program and for numerous opportunities to play and learn in the Greater Lowell area. For more information email Dotty Stumpf at stumpfd@middlesex.cc.ma.us

Accommodations: Doubletree Hotel, 15 Warren St., Lowell, MA

The Doubletree Hotel, adjacent to Middlesex Community College, has an award winning Italian restaurant, lounge, indoor pool, and fitness center. A block of rooms has been set aside until October 14 for conference participants. Conference rate is \$79.00.

Address: 50 Warren Street, Lowell, MA 01852 Phone: (978)452-1200.

The Doubletree is the only hotel close to Middlesex. Other hotels within easy driving distance are listed online at <http://www.lowell.org/lowell.php> (Merrimack Valley Convention and Visitor's Bureau). Click on "Accommodations". Information on the many museums, theater and sport facilities in Lowell are available at that website as well.

Directions to Middlesex Community College Lowell Campus

To Lowell Connector from:

Route 3 North - Take Exit 30N to the Lowell Connector

Route 3 South - Take Exit 30 to the Lowell Connector

Route 495 North or South - Take Exit 35C to the Lowell Connector

Massachusetts Turnpike and Points West - Mass Pike to exit 10 (Rte. 290 East) Follow Rte. 290 east to Rte. 495 North . Take 495 North to Lowell Connector (exit 35C)

Logan Airport (Boston) or Points South

Exit airport following signs to Boston via Sumner Tunnel. Take Route 93 North to Route 495 South, to exit 35 C - Lowell Connector. (about 40 minutes)

Manchester Airport: Exit airport onto Brown Ave. Right onto Brown Ave. Left onto 293 N/101W. Shortly exit onto FE Everett Turnpike which turns into Rte. 3 South. Take Exit 30 to Lowell Connector. (about 40 minutes)

From Lowell Connector to Middlesex Community College

Follow the Lowell Connector to end (Gorham St.). Turn left on Gorham to third light, right on Church St., first left on George. Doubletree Hotel is straight ahead. Park in adjacent Lower Locks Parking Garage. Walk beside the hotel across the bridge to the Middlesex Community College campus.

For map of area, click on <http://www.middlesex.cc.ma.us/info/MAPS.HTM>

Alternate directions to the College and Doubletree Hotel from:

Route 93 North or South- Take Exit 43 - Route 133W towards N. Tewksbury/Lowell

Route 495 N/S - Take Exit 39 - Route 133W towards N. Tewksbury/Lowell

Route 133W becomes Andover Street when you enter Lowell. Cross route 38, then right at second light (George St.), straight to hotel. Park in Lower Locks Parking Garage. Walk beside the hotel across the bridge to the MCC campus.

Limousine Service from Logan or Manchester: Call Flightline at 1-800-245-2525.

Taxis from Logan and Manchester are expensive, about \$60.

CONFERENCE PRE-REGISTRATION

165th TWO-YEAR COLLEGE CHEMISTRY CONSORTIUM CONFERENCE

Explorations in Chemical Education

Middlesex Community College

November 14 and 15, 2003

Name _____ Institution _____

Institution Address _____

City _____ State _____ Zip _____

Phone Number(s) _____

Email _____

I teach at a 2-Yr College _____ High School _____ 4-Yr. College _____

I plan to participate in the tour of: Natick Labs _____ Nuclear Reactor _____ (Each limited to first 20 registrants)

Conference Fees

Registration (current 2YC₃ members) @ 20.00 \$ _____

Registration (includes 2YC₃ membership) @ 35.00 \$ _____

Friday Evening Banquet @ 25.00 \$ _____

TOTAL \$ _____

Note: There is no conference fee for high school teachers or students.

Meals: A continental breakfast will be provided on both days of the conference.

Lunch will be on our own at any one of the many diverse restaurants within walking distance and will give us a chance to experience the very interesting downtown Lowell area.

Dinner will be preceded by a wine and cheese social. Let us know if you would like a vegetarian option.

Please make reservations for the banquet by November 10.

REGISTRATION for the 165th 2YC₃ Conference is available online at www.middlesex.cc.ma.us/2YC3.

If you register online, you may send your check (preferable) or bring it to the conference.

If you prefer to register by mail, please send your registration and check to:

**Colleen Cox
Middlesex Community College
15 Kearney Square
Lowell, MA 01852**

Make check payable to Middlesex Community College/2YC₃.

Although you may register on the day of the conference, it is enormously helpful for us if you register in advance.

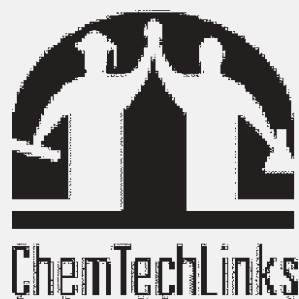
An Interesting Conference right before the BCCE Conference in Iowa:

**Linking Chemistry-based Laboratory
Technology Programs with Local-Area Industry**

ChemTechLinks is sponsoring a conference that will highlight best practices in developing and maintaining alliances between chemistry-based laboratory technology programs and their local industries. Speakers and participants will share knowledge about alliance trends, characteristics, organization, function and the role of respective stakeholders. Special attention will be given to factors that influence and contribute to successful alliances and methods to evaluate alliance success.

The conference will be held from Friday evening, July 16 – Sunday morning, July 18, 2004, immediately preceding the 18th Biennial Conference in Chemical Education (BCCE) at Iowa State University of Science & Technology, in Ames, Iowa. Partial subsidies for attendance are available for a limited number of participants. For more information, please contact us at ChemTechLinks@acs.org.

ChemTechLinks is a resource center for all those interested chemistry-based technician education and is supported by a grant from the National Science Foundation (DUE 0053250).



What to Expect at the 169th 2YC₃ Conference:

Our 169th 2YC₃ conference will be held during the 2004 SE Regional ACS meeting. The event will be held at Research Triangle Park Area, North Carolina on Nov. 10 through Nov. 13, 2004. Sol Levine is the General Chair of the SERM 2004 and our capable 2YC₃ chair is Clarita Bhat (ccbhat@aol.com) from Shoreline Community College assisted by Hamid Shirzadi (shirzadi@gtcc.cc.cn.us) from Guilford Community College, as co-chair. The 2YC₃ will host a symposium on “Revisiting the OrganicChemistry Curriculum.” Topics will include retention of students and using technology in the course.

Be a mentor for the U.S. National Chemistry Olympiad program:

College educators are invited to apply for a position as mentor for the U.S. National Chemistry Olympiad program. Successful applicants are expected to have a broad background in organic, theoretical, and descriptive chemistry with classroom experience and must be prepared to make a three-year time commitment. ACS pays all expenses and travel costs, as well as an honorarium. The 2006 and 2007 IChO events are scheduled to be held in Korea and Lithuania, respectively. Interested individuals may obtain an application form at www.chemistry.org/education/student/olympiad/mentor.html. **January 23, 2004 deadline**



College Sponsors

Thank you for all of the College Sponsors who contributed in so many ways to the successful programs of the 2YC₃. Many of these colleges have been supporting our efforts for over 30 years not only with a membership, but also by supporting their chemistry teachers in the activities of the 2YC₃.

Allegheny Community College	Gainesville College	North Harris College
Amarillo College	Garden City Community College	North Iowa Area Community College
Anoka-Ramsey Community College	Gloucester County College	North Lake College
Atlantic Cape Community College	Grand Rapids Community College	North Seattle Community College
Bellevue Community College	Harford Community College	Northampton Community College
Bergen Community College	Highland Community College	Oakland Comm. College- Highland Lakes
Bismarck State College	Holy Cross College	Oakton Community College
Black Hawk College	Holyoke Community College	Olympic College
Blinn College	Houston Community College System	Portland Community College, Sylvania Campus
Bucks County Community College	Hudson Valley Community College	Prairie State College
Burlington County College	Hutchinson Community College	Prince George's Community College
Clackamas Community College	Jackson Community College	Saddleback College
College of DuPage	Jamestown Community College	Schoolcraft College
College of Lake County	Jefferson Community College	Seattle Central Community College
College of Southern Maryland	Kansas City Kansas Comm. College	Sierra College
College of the Mainland	Kilgore College	Sinclair Community College
College of the Sequoias	Kingwood College	South Arkansas Community College
Collin County Community College	Lewis and Clark Community College	Southwestern College
Columbia Basin College	Linn-Benton Community College	St. Louis Community College- Florissant Valley
Community College of Baltimore County- Essex	Lorain County Community College	St. Louis Community College-Meramec
Community College of Beaver County	McHenry County Community College	Stark State College of Technology
Community College of Philadelphia	Metropolitan Community Colleges	Texarkana College
County College of Morris	Miami-Dade Community College- South Campus	Truckee Meadows Community College
Cuesta Community College	Middle Tennessee State University	University College, Univ. Cincinnati
Cuyahoga Community College Western	Minneapolis Technical and Community College	University of Arkansas-Fort Smith
Dodge City Community College	Mt. Hood Community College	Vincennes University
Donnelly College	Navarro College	Waubensee Community College
Essex County College	New York City Technical College	Western Nebraska Community College

If you don't find your school in this list, please consider approaching your administrators about having your college become a college sponsor. The yearly membership fee is only \$25. Please send your check, payable to 2YC₃, to: Ed Dobrzynski, North Iowa Area Community College, 500 College Drive, Mason City, IA 50401

One More Industrial Sponsor!

We unfortunately neglected to thank one of our industrial sponsors in our last newsletter. We wish to thank the following industrial sponsor for the support we received.

Pan-Educational Institute
10922 Winner Rd.
Independence, MO 64053

Undergraduate Student Transfer: Addressing the Challenges

If you have resources and strategies that facilitate student transfer, you are invited to share them at the 2004 Biennial Conference on Chemical Education (BCCE). "Undergraduate Student Transfer: Addressing the Challenges," sponsored by the Society Committee on Education (SOCED), Committee on Minority Affairs (CMA), and Committee on Technician Affairs (CTA), will focus on:

- the advising and curricular needs of students as they pursue various academic pathways to chemistry careers
- resources and programs currently in place
- ways of involving chemistry faculty from both two-year and four-year institutions
- approaches to improving communication
- strengthening programs

The program will include a keynote presentation by George Boggs, President and CEO of the American Association of Community Colleges, poster session, and symposium with panel discussions.

If you are interested in participating, please contact Jodi Wesemann (j_wesemann@acs.org or 1-800-227-5558 x4587). Abstracts should be submitted at the BCCE web site (www.chem.iastate.edu/bcce) by January 26, 2004.

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or Martin V. Stewart: mstewart@mtsu.edu (615)898-2073

or Write: Department of Chemistry, Box 68,
Middle Tennessee State University, Murfreesboro, TN 37132

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Basic Kit II

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