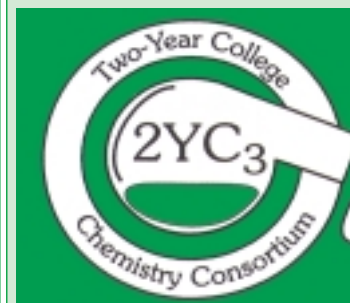


Vincennes University
Committee on Chemistry in the Two Year College
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Chemistry Outlook

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



Clarita Bhat, 2002 Chair

INSIDE THIS ISSUE

Vol. 2002 - II

1, 2	Notes from the Chair
2	Conference Calendar
3	2002 COCTYC and Support Staff
4-6	159th Conference Program
7	Industrial Sponsors
8	It Worked for Me
9	160th Conference
10	Call for Applications: chair and treasurer
11	Advertisers

7

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Notes From The Chair

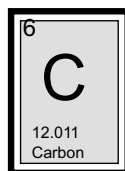
Greetings from the Chair!

Clarita Bhat
Shoreline Community College
Shoreline, WA 98133

The big Boeing 767 jet is taking off from sunny Orlando, Florida, on its way to the gentle rain of Seattle. As I watch the landscape become miniatures, I reflect on the very stimulating and eventful five days that just elapsed. It all started with our flight to Jacksonville to attend the 158th Southern Conference at Florida Community College. The theme, Web Enhanced Learning, was already an invitation to learn more. The first evening our COCTYC meeting was well attended by our officers and once again, we had a tremendously productive and creative brainstorming session in a congenial and friendly atmosphere. New plans were discussed for future meetings, perhaps a new direction for 2YC₃ and much more. The next day, Friday, we were treated to a host of excellent presentations, starting with Ed Thall's humorous rendition of Developing 2YC₃ Web Resources. Other presentations included: Technology Based Assessments in Chemistry, Internet Information Resources for the Working Chemist, Creating Internet Workbook for Science Students, Use of Spreadsheets in General Chemistry, Building Online Laboratory Environments and much more. Interesting workshops, such as Developing Online Courses and Laboratory Interfacing added zest to the day. In between presentations, there was ample time to renew acquaintances, network with colleagues and visit the exhibits area. The evening banquet was a true treat: Through the windows we could see the surf breaking on the sand as the evening gave way to night. This was followed by a thrilling (and chilling, to me) talk by Frederick Senese, entitled Just Ask Marie. The Marie in his presentation is an intelligent program (reminiscent of true AI) through which students can access information, engage in Socratic dialogue, launch programs, perform calculations and even have the color of their eyes and hair described! The following day included more related presentations, an open 2YC₃ forum for all members and interesting discussion group on what to teach and delete in General Chemistry. Comments from participants ranked this as a very well organized and stimulating conference.

Saturday morning I had to leave the friendly group to attend several events at the ACS National Meeting in Orlando. At the CHED Executive

continued on page 2



Conference Calendar

2002-2003 Academic Year

159th Conference (Western)

<http://atom.chem.wvu.edu/acs/bcce2002.html>

July 28-August 1, 2002 17th Biennial Conference

Western Washington University
Bellingham, WA

Program Chair:

Clarita Bhat
Email: ccbhat@aol.com

160th Conference (Eastern)

Oct. 4-5, 2002

Tunxis Community College
271 Scott Swamp Road
Farmington, CT 06032

Contact :

Karen Wosczyzna-Birch
Email: kwbirch@commnet.edu

161st Conference (Midwestern)

Nov. 8-9, 2002

Kansas Community College
7250 State Avenue
Kansas City, KS 66112

Contact::

Ed Kremer
Email: ekremer@toto.net
Phone: (913) 288-7111

162nd Conference (Southern) ACS National Meeting, New Orleans, LA, March 23-27, 2003

March 21-22, 2003 Delgado Community College
City Park Campus
New Orleans, LA

Contact:

Tom Gruber
Phone: (504) 361-6410
Email: tagruber@aol.com

163rd Conference (Southern) ChemEd 2003

July 27-31 Auburn U, AL

Consult the 2YC₃ Website, <http://2YC3.vinu.edu>, for the latest updates on future conferences!

continued from page 1

Committee meeting I had the chance to get acquainted with the officers of that large organization and visited with some of our members, who have become active in that group. Monday morning I was part of a Presidential Event on Recruitment/Retention of Minorities: Successful Transfer from the 2-Year to the 4-Year Schools. I was pleased to find out that the role of the Community Colleges was lauded in that we educate a very large number of minorities and teach competitive courses. The members of a student panel spoke highly of the educators who had encouraged, helped and supported them to become successful after transfer. None of them felt unprepared for the big school. I was proud of our mission!

Then it was time to go home. As I finished my reflections, I had two main thoughts: That my professional life had become so involved and stimulating since I joined the 2YC₃ and more recently, became Chair. Secondly, I was truly sad to leave the 2YC₃ Conference, even though I was being hosted at the ACS National Meeting. Why did I feel that way? The answers are simple: My amazing COCTYC colleagues, the fact that each conference deals with excellence in teaching and new advances we can all learn from even if we are not ready to embrace it all, a common goal unites us, the ability to actually sit down and talk to our peers about what is important to us, that there are regional meetings convenient to all, and the price of all this, well, you can do the math it is undoubtedly the best buy in town!. That is why, even as I fly home, I am looking forward to the next events, there is the BCCE in July, the Conference in Farmington, CT in October, and Kansas in November. What stimulating ideas will I hear next? See you all there!

A Big Thanks to the 158th Conference Organizers in Jacksonville, FL



Steve Milczanowski (exhibits), Karen Sanchez (high school liaison), Edwin Thall (program chair), and Richard Morris (local arrangements)

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2002 COCTYC

front row, l to r: Clarita Bhat, Rick Bolesta, Frank Koch
back row, l to r: Carol Handy, Dolores Aquino, Michaeleen Lee, and Ed Dobrzynski

Missing Bill Haley and Tom Gruber

Call for application for the office of Chair-Elect of COCTYC for the year 2004

Application for Chair-Elect 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
 - be a member of ACS
 - 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 Executive Committee
 - served as Local Arrangements Chair for a Conference
 - chaired a sub-committee
 - 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 September 1, 2002.

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

-Each 2YC₃ member shall vote for one nominee 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 12/31/2002.

-Ballots will be counted by the Chair in the presence of a Notary.

-The results of the election will be reported in the first possible newsletter.

Call for application for the office of Treasurer of COCTYC for the year 2003

Application for Treasurer 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

-Applications must be received by the Chair no later than September 1, 2002.

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-The results of the election will be reported in the first possible newsletter.

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2YC₃ World Wide Web Page

URL: <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

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Home Address: _____

Street City, State Zip Code

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College Phone: _____ Email: _____

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_____ High School Teacher? _____ Other

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**17th Biennial Conference on Chemical Education
Western Washington University
Bellingham, WA
July 28 —August 1, 2002**

A Special Invitation to 2YC₃ Members and Program Overview!

Note: The following information has been “distilled” from Registration Book.

We would like to extend to you a personal invitation to attend the 17th Biennial Conference on Chemical Education. We offer you an exciting opportunity to gather together and share expertise and experience among colleagues who are committed to excellence in chemical education. The principal themes of our program are intended to highlight the unique scientific and cultural environment of the Pacific Northwest. We are sure that you will find many things in the program that will be of interest to you. Below are some important bits of information for our 2YC₃ colleagues!

The 17th BCCE Registration Book is now available and may be requested by the following means:

Web: <http://chem.wwu.edu/acs/bcce/index.html> - Click on Registration for information.

Phone: (360) 650-3126

Email: bcce@chem.wwu.edu -Subject Line: BCCE Registration Book

Mail: 17th Biennial Conference on Chemical Education, EESP MS-5293, WWU, 516 High Street, Bellingham, WA 98225

Dr. George Kriz, General Chair
Email: kriz@chem.wwu.edu

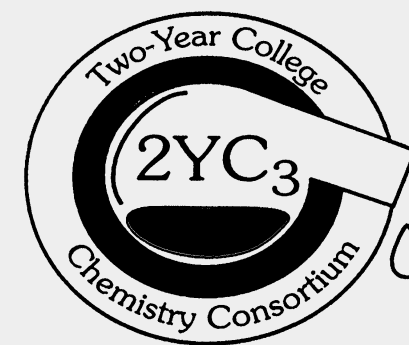
Dr. Sara Selfe, Program Chair
Email: bcce@edcc.edu

Dr. Clarita Bhat, 2YC₃ Program Chair
Email: ccbhat@aol.com

For parents: BCCE childcare and children's programs will be available through Whatcom Family YMCA. YMCA staff will contact you directly with details. Contact the BCCE Children's Programs Coordinator using the contact information above, or by clicking on the Childcare Information link on the webpage. If emailing, please state BCCE Childcare in the subject line.

An Overview of the Conference

There will be approximately 1500 attendees, over 60 workshops and 500 individual presentation. A spacious exhibition area will include over 50 exhibition booths as well as a hospitality center. The setting for the conference is Western Washington University in Bellingham. This city was recently ranked by Forbes Magazine as one of the fifteen most desirable sites in which to locate a small business. The city is perched on a hillside overlooking the crescent-shaped waterfront of Bellingham Bay, surrounded by mountains and trees. The area has abundant natural beauty and many opportunities for hiking, golfing, and ferry rides. A regional airport serves Bellingham with frequent daily flights to and from Sea-Tac Airport in Seattle. If you prefer to drive, it is a scenic, easy 90 mile drive on I-5.



Please Join Us at the 160th 2YC₃ Conference

The 160th conference of the Two-Year College Division of ACS will be held at Tunxis Community College in Farmington CT on Friday, Oct. 4th and Saturday Oct. 5th.

The theme of this conference will be Industry-Driven and Inquiry-Based Learning. The Connecticut Business and Industry Association, a State-wide Organization that includes members such as Pfizer, Neurogen and Bayer will be co-sponsoring the event.

For submission of a paper for a presentation or a poster session, and/or for further information, please email kbirch@commnet.edu.

“IT WORKED FOR ME”

An interesting article from Lance Lund describing how he enhances his chemistry curriculum. As always, you are invited to share a new or revised teaching concept by submitting an article for publication in the Chemistry Outlook to the newsletter editor, Carol Handy (mh2ch@aol.com).

Elementary Classroom Visits
Lance S. Lund, Anoka-Ramsey Community College,
Coon Rapids, MN

As an undergraduate student at Morningside College, in Sioux City, Iowa, I fondly remember one of my favorite days of the school year. The name of the event escapes me now, but the College of Science and Mathematics hosted an annual event that brought busloads of middle school and high school students to the college. The visiting students would each select 2-3 different sessions to attend during the day, such as cryogenics, microscopy, or chemical magic shows. The sessions were hosted and taught by students from the college. I didn't hesitate to take the opportunity to be part of the chemical magic show team.

This event gave me a bright idea that I began to pursue about 7 years ago. Rather than bringing students to the college, I decided I wanted to send my students out into the schools. Also, instead of focusing on the middle schools and high schools, where opportunities and trained science professionals are more numerous, I decided to send my students into the elementary schools to do some chemistry. Furthermore, I had recently read an article where research had shown that students who developed negative attitudes about science in elementary school tended to retain those negative attitudes throughout the rest of their educational experiences. It was my hope that we could provide a positive experience for all parties involved.

I received a small foundation grant from the college to pursue the classroom visits on a trial basis. That trial has become a regular part of the curriculum for the second semester of our Principles of Chemistry sequence. The entire activity is conducted over a period of three weeks in the laboratory. During the first week, I explain the classroom visits and my expectations of the students. I also have 10-12 stations set up around the lab, each with a different type of demonstration or hands-on activity. I demonstrate each of the stations, explaining them as we go along and giving some presentation tips. Presentation tips include how to make the demonstrations more visible and entertaining, providing scientific and/or everyday applications, and how to explain them at a very basic level.

After the students have seen each of the activities available, they are asked to select 3-5 activities they plan to present. Our lab manager and I go through the list and in the second week we set out enough chemicals and supplies for the students to prepare their activities. To make things interesting, students need to prepare all necessary solutions themselves, either by following a “recipe” out of one of Shakashiri's demonstration books or by performing the necessary calculations that might allow them to

prepare 2.0 L of 0.005 M KIO_3 . You would be surprised how much more the students appreciate lecture demonstrations after they learn how much work can go into preparing what is often a relatively short demonstration. Students also use the lab time during the second week to discuss what they plan to say and do during their visits.

During the third week, the students actually conduct the classroom visits. After gathering all of their boxed up chemicals and supplies, the students head out to the elementary schools in pairs. They are expected to deliver a presentation lasting 20-40 minutes. I arrange most of the schools and host teachers approximately two or three weeks in advance of the visits. However, a few of my students have kids or siblings of their own and choose to arrange their own classroom visit. After giving their presentation, they come back to the college, dispose of their chemicals properly, and clean up their equipment. The host teachers complete an evaluation and return it back to me.

We have now done the classroom visits for seven years. Approximately 400 ARCC students have performed the classroom visits and they have been experienced by about 5000 elementary students. The program is very popular. We cannot keep up with all of the requests and have had to put several teachers on an every-other-year basis. As much as I worried about sending out that first group of students (and I still worry a bit), I can honestly say that only one pair of students has ever received what I consider a negative evaluation. I think this is pretty good when you consider that 10% or less of those students plan to be teachers, 5% or less plan to major in chemistry or chemical engineering, and many of the students are shy or deathly afraid to get up and talk in front of other people. Students usually rate the classroom visits as the best course experience of the year – even those students who were highly skeptical at the outset.

Activities used in the classroom visits include a chemiluminescent reaction, iodine clock reaction, liquid nitrogen demonstrations, red cabbage juice indicator, properties of gases (O_2 , CO_2 , and H_2), endothermic and exothermic salts, freezing point depression, slime, packaging peanuts (corn starch and Styrofoam), static charge demos with balloons and Scotch tape, and magic signs (signs painted with phenolphthalein and sprayed with an ammonia-based window cleaner). Obviously, some of these activities are suited for demonstration only. Others work very well in a hands-on scenario.

If you have any questions or comments, I would appreciate hearing from you at 763-422-3483 or at llund@an.cc.mn.us.

Western Washington University is a comprehensive regional university situated on Sehome Hill, overlooking Bellingham Bay. The current enrollment is approximately 12,000 students. It offers 250 degrees in six colleges. The Chemistry Department offers programs of study in chemistry and biochemistry, as well as a program leading to high school teacher certification. The department incorporates the most recent advances in chemistry and a faculty committed to excellence in education at all levels.

Lodging:

There are many different sites available for lodging. The recommendation for our members would be to obtain On-Campus Housing. The facilities are very good and the proximity to all events and to each other is priceless. An alternative would be to lodge at Fairhaven Village Inn (on the waterfront).

Program Highlights for our members:

Sunday, July 28:

Symposia (2:00 — 5:00)

Green Chemistry and Its Role in Chemical Education

Advising in Two-Year Colleges / Providing a Seamless Transition for Students from High-School to Community College to 4-year Institution.

Women Influencing Chemical Education: Textbook Authors

Opening Ceremony: 7:30 pm

Plenary Lecture 8:00 pm

Dr. Ronald Breslow, S.L. Mitchell — Professor of Chemistry Columbia University, *Let's Not Waste the Opportunity to Inspire in College and High School Chemistry*.

Monday, July 29:

Plenary Lecture 8:00 am — 9:00 am

Dr. Michael P. Doyle, *Misconceptions in Teaching and Research — No Time, No Money*

Symposia (Throughout the day)

Survival 101 for the New College Chemistry Instructor

Innovations in Technician Education

Green Chemistry in Action

Inquiry Approaches to Teaching Chemistry

The Role of Community Colleges in Teacher Preparation / Preparing Future Science Teachers: What are we doing to recruit and train outstanding students?

Not to be missed:

Monday evening: Dramatic presentation entitled *The Life of Marie Curie* by Carole Berg, Bellevue Community College.

2YC₃ Ice Cream Social (Yum, Yum!). We welcome volunteers to help us serve ice cream!

Tuesday, July 30

Recommended Highly:

3.1 mile Fun Run through beautiful Bellingham area. (7 am)

Plenary Lecture (8:00 am — 9:00 am)

Dr. Karen Morse, President of WWU

Under graduate Research: Why Should an Administrator Even Care?

Symposia

Environmental Chemistry Lecture and Laboratory

Chemscape Chime as a Visualization Tool

Interdisciplinary Curricula: Chemistry Beyond Chemistry

The Role of Community Colleges in Teacher Preparation / Preparing Future Science Teachers: What are we doing to recruit and train outstanding students?

2YC₃ Meeting and Lunch: 12:30

Evening Banquet: Barbecued salmon at the Hotel Bellwether and the Tom Glenn Commons.

Wednesday, July 31

Plenary Lecture (8:00 am — 9:00 am)

Dr. George Pinky Nelson, Western Washington University, *Basic Chemical Literacy For All: What Should Everyone Know? What Skills Should Everyone Have? Are We There Yet? How Can We Get There?*

Symposia

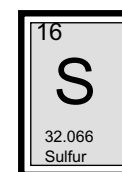
Teaching Organic First

Revisiting the General Chemistry Curriculum / Chemical Literature and Information Retrieval in Two-Year Colleges

Closing Ceremony with a Demonstration Extravaganza!

Please note that there are many more symposia and over 60 workshops.

Please browse through the Program Booklet and delight in so many opportunities to learn!



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