

**186<sup>th</sup> 2YC3 Conference (Southern)**  
**“Sharing Ideas to Promote Chemistry Education”**  
**Hinds Community College**  
**Raymond, MS**

**November 13-14, 2009**

For more registration, lodging information, travel directions, and the latest information on the conference program, contact Program Chair: Pam Clevenger, 601-857-3869 or [pwclevenger@hindsc.edu](mailto:pwclevenger@hindsc.edu)

**All events will be at the Eagles Ridge Conference Center in Raymond, MS.**

**Tentative Schedule**

**Friday, November 13**

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

9:00 – 9:15    **Welcome and Opening Remarks**

9:15 – 10:15   **Keynote Address - Auditorium**

**"Pathways to Success in the Chemical Sciences: Affirming the Value of Two-Year College Graduates"**

Onofrio G. Gaglione, *Councilor ACS Southern Nevada Section and past 2YC3 chair*

The talk will focus on the growth of two-year college chemistry education and what will be needed for associate degree chemistry education to be perceived as a legitimate pathway for high school graduates and returning students to the baccalaureate degree and beyond as they pursue a career in science, engineering and education. The benefits of the ACS through its Scholars Program, Society Committee on Education Guidelines, 2YC3 Meetings along with the professional growth of its faculty and the support of external funding agencies will be reviewed as major contributors to a 2YC Model that affirms the value of its graduates.

10:15 – 10:30   **Refreshment Break and Exhibits**

10:30 – 11:15   **2YC3 General Membership Meeting - Auditorium**

11:20 – 12:00 **Presentation Sessions**

A. ChemEd Bridges - Auditorium

Dr. David Brown, *Southwestern College, Chula Vista, CA*

Dr. Tom Higgins, *Harold Washington College, Chicago, IL*

The ChemEd Bridges project, funded through an NSF CCLI grant, aims to increase the participation of two-year college chemists in the national chemical education community. This presentation will share the mission and goals of ChemEd Bridges, give an account of the activities undertaken to date and will solicit the audience for ideas for future directions of ChemEd Bridges endeavors.

B. Round Table Discussion on Community College Chemistry Curriculums in Mississippi – Downstairs #1

Jason Webb, *Hinds Community College, Raymond, MS*

Lou Anne Williams, *Hinds Community College, Raymond, MS*

The purpose of this discussion will be to discuss and exchange ideas about General Chemistry I and II curriculums. If possible, bring copies of objectives and syllabi for each course.

12:00 – 1:00 **Lunch Break and Exhibits**

1:00 – 1:50 **Presentation Sessions**

A. Introducing and Implementing the new ACS Guidelines for Chemistry in Two-Year College Programs - Auditorium

Dr. Dolores C. Aquino, *San Jacinto College – Central Campus, TX*

Dr. Armando Rivera, *East Los Angeles College, Monterey Park, CA*

Dr. Jorge Salinas, *Miami-Dade College, Miami, FL*

B. Undergraduate Research in Community Colleges – (upstairs)

Dr. Jay Bardole, *Vincennes University, Vincennes, IN*

Undergraduate chemical research can serve a useful and important role in the education of community college students. For students who have no other contact with research it is an opportunity for a whole new perspective on science and serves to encourage students to select and remain in a science career. It also brings credibility to chemistry students among their peers. Faculty leadership, laboratory facilities, and flexible scheduling are available at the community college level for students, but other resources including existing equipment, chemical literature, and upper level student leadership are more difficult to implement. Areas of research are from the CASPiE modules Solid Phase Organic Synthesis and Bio-diesel Production and Evaluation.

2:00 – 2:45

**Presentation Sessions**

- A. "The Merits and Benefits of Undergraduate Research - A Student Perspective"  
Talon Room (upstairs)  
Mark Gianino, *Undergraduate Chemistry Major and ACS Scholar,*  
*Southwestern College, Chula Vista, CA*

This presentation will highlight learning achievement for an undergraduate chemistry major that has been enhanced and augmented through research endeavors. Focus will be given to student recognition of the necessary assimilation of information from a variety of disciplines and topics to solve problems in chemical research.

- B. Outcomes of Re-structuring an Introductory Chemistry Course:  
Incremental Changes, Measurable Results - Auditorium  
Thomas Jose, *Blinn College, Bryan TX*

This presentation outlines the steps taken to formally evaluate our use of pyramid testing, a novel student-centered assessment that awards credit not only for individual achievement, but for group work as well. Early experiences with pyramid testing have guided decisions to modify the course focus. The hope is that these changes result in a course better suited for the terminal Chemistry student.

3:00 – 3:45

**Presentation Sessions -**

- A. Adapting and Implementing POGIL in General Chemistry – (upstairs)  
Dr. Tom Higgins, *Harold Washington College, Chicago, IL*

POGIL is a student-centered method of instruction that emphasizes learning the content of chemistry, the process of science, and the discovery of new materials. POGIL was implemented in the General Chemistry classroom using structured small group work, and in the laboratory using discovery oriented experiments. Evaluation of student learning has centered on successful completion rates (final grade of A, B, or C - up 21% since intervention), student retention (up 18% since intervention), and final scores on a standardized exam (average score essentially unchanged). Preliminary analysis suggests that more students are completing the course successfully without a significant change in the amount of chemistry being learned. Evaluation of student thinking used the Test of Logical Thinking in a pre/post format. Preliminary analysis suggests that logical thinking skills increase across the board. Evaluation of student attitude used the Chemistry Self-Concept Inventory and the Student Assessment of Learning Gains.

- B. Poster/Information Session - Upstairs Foyer

Visit with students involved with undergraduate research/activities and discuss with representatives of graduate programs and future conferences relevant to 2YC3 members.

3:00 – 5:00 **Tour of Historic Raymond, Mississippi**  
- Shelton House, Chancery Building, St. Mark's Episcopal Church

5:45 Light refreshments

6:00 – 6:30 **Jubilee Singers Concert**

**Hear the plantation spirituals and other traditional music performed by the Hinds Community College Jubilee Singers. This all male African-American group was formed in the 1920's and continues to entertain and inspire local, state, national and international audiences.**

6:30 - 8:30 **Dinner Banquet and Address**

Dr. Mark Michalovic, *Bucks County Community College, PA*

“Contributions in Anti-Fungal Pharmaceuticals of Elizabeth Lee Hazen:  
A Mississippi Mycologist”

## **Saturday, November 14**

7:30 – 8:30 **Buffet breakfast** – compliments of the Mississippi Section ACS

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

9:00 – 10:00 **Opening Address** - Auditorium

Mississippi: America's First State System of Junior Colleges

Dr. Ben Fatheree, *Hinds Community College, Raymond, MS*

10:00 – 10:15 **Refreshment Break and Exhibits**

10:15 – 10:45 **Presentation Sessions**

A. Women in Science: Repairing the Pipeline - Auditorium

Dr. Jacob Clark Blickenstaff, *Assistant Professor of Physics and Assistant Director of Science & Mathematics Education, University of Southern Mississippi, Hattiesburg, MS*

An array of factors appears to cause the under-representation of women in STEM fields, though the issues vary somewhat by discipline. What initiatives exist to retain young women in STEM, and what can science educators do in their classrooms to bring about change?

B. Real-World Experiments with MeasureNet LIMS, EDU-CHEM & FUN-SCIENCE! (Downstairs)

Dr. Jerry DeMenna, *FUN-SCIENCE Academics Group, Bronx, NY*

See a “NEW” and IMPROVED way to teach “Tech” to your Students! Watch a few “fun” and “interesting” (aka: non-boring!) experiments for Undergraduate teaching Labs and basic Graduate research in analytical Instrumentation using Electro-Chemistry (pH, Conductivity, Re-Dox), Physical Measurements (Temperature, Pressure, Friction), UV-Visible Spectrophotometry, Fluorimetry, Phosphorimetry, Infra-Red Spectrometry, Colorimetry, Flame Photometry, Gas Chromatography and Liquid Chromatography. Students can “measure” their world and determine everything from Caffeine in Sodas to Acids in Vinegar to Amino Acids in Energy Drinks to Alcohol in Mouthwash to Polyesters in Motor Oil to Calories in Potato Chips!

Basic measurement devices; such as pH Probes, Digital Thermometry, LED-based Colorimetry & Fluorimetry, Pressure Transducers and others; along with more sophisticated Analytical Instruments from EDU-CHEM Innovations; such as IR, UV-Vis, GC & HPLC; can be interfaced to the MeasureNet LIMS Network with their Universal Workstations instead of costly P-Cs, and can provide a rapid, foolproof Standardized Data Collection protocol for ANY teaching lab.

10:50 – 11:20 **Presentation Sessions**

A. Diversity in STEM Through Green - Auditorium

Dr. Armando Rivera, *East Los Angeles College, Monterey Park, CA*

The Green Works program was developed to promote STEM outreach and recruitment efforts to minority high school students through a series of planned activities and events. The Green Works program provides high school students the opportunity to participate in a high school-to-college transition program that fosters awareness of environmental issues and practices: introduces and prepares students to STEM professions; provides guidance and support for college readiness; and encourages student leadership.

B. Topic TBA – Ian Desrosiers (Downstairs)

11:30 – 1:00 **Lunch Break and Exhibits**

12:15 – 12:45 **Lunch Speaker**

Culinary Spectroscopy

Dr. Jerry DeMenna, *FUN-SCIENCE Academics Group, Bronx, NY*

1:00 – 1:45 **Presentation Sessions**  
A. Chemistry for High School Teachers - Auditorium  
Dr. John Wiginton, *University of Mississippi, Oxford, MS*

B. USM Polymer Science Department – Downstairs  
Dr. Bret Calhoun

1:00 – 3:30 **CCLI Grant Writing Mini Workshop** - Upstairs  
Dr. David Brown, *Southwestern College, Chula Vista, CA*  
Dr. Tom Higgins, *Harold Washington College, Chicago, IL*

This mini-workshop will provide attendees with some of the resources and information that were shared during a 1.5 day proposal preparation workshop supported by an NSF CCLI grant. Participants will be offered the following: (1) guidance regarding how to get started on the path toward preparation of a quality CCLI proposal; (2) an overview of the vital components of a CCLI proposal; (3) opportunities to examine critical proposal sections in detail; and (4) examples of successful proposals.

2:00 – 2:45 **Presentation Session**  
A. College and Career Readiness in Chemistry - Auditorium  
Thom Jose, *Blinn College – Bryan Campus, Bryan, TX*

This talk will focus on the College and Career Readiness Standards (CCRS) published by EPIC ([epiconline.org](http://epiconline.org)) and adopted by the Texas Higher Education Coordinating Board. Links between Chemistry readiness and Mathematics readiness will be drawn. The presentation will also suggest what to expect from incoming students as they prepare to take any college-level science course.

B. Topic TBA – Dr. Kerri Scott

3:00 – 3:30 **Closing Comments**

### **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 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

**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.