

# ASEE Chemical Engineering Division Newsletter



## IN THIS ISSUE:

### MESSAGE FROM THE CHAIR

Page 1: Elections, Award Sponsorship, Conference Programming and more....

### ELECTIONS

Page 2: Please vote for one candidate for Chair-Elect and one candidate for Director. Send vote via email with subject "ChED Election" to [SilverDL@engr.uky.edu](mailto:SilverDL@engr.uky.edu).

### ASEE SUMMER SCHOOL

Page 5: The ASEE Summer School at Washington State University in August 2007 was a huge success.

### RESULT OF BYLAWS VOTE

The changes outlined in the Fall 2007 newsletter passed and have been submitted to the ASEE Board of Directors for approval. In the meantime, the new bylaws are posted on the Division website, [www.asee-ched.org](http://www.asee-ched.org).

### PROGRAM FOR THE 2008 MEETING

Page 6: Program overview for the Pittsburgh meeting is included. Thanks to Jason Keith for organizing and coordinating this excellent program!

## A Message from the Chair

This is the election issue; you will see that we have candidates for Chair-Elect and for Director. Please send David Silverstein ([silverdl@engr.uky.edu](mailto:silverdl@engr.uky.edu)) your vote via e-mail now, and consider throwing your own hat into the ring for election next year, or volunteering to serve the division as a session moderator, paper reviewer, program chair or local liaison for a future annual meeting. The current chair-elect, Don Visco of Tennessee Technological University, will be chair next year. Director Margot Vigeant (Bucknell University) and Secretary/Treasurer David Silverstein (University of Kentucky) have a year left in their terms. I have truly enjoyed serving the division as chair this year, and look forward to continuing active involvement as awards co-chair. I'm sure that newsletter editor Adrienne Minerick (Mississippi State University) would welcome your help if writing's your thing.

I think that the division's biggest news for the year must be our new sponsor for the Chemical Engineering Lectureship Award, Chemstations. With so many chemical engineering programs using the CHEMCAD flowsheet simulator, this partnership to honor a faculty member for significant contributions to education and the profession seems like a natural. Please thank Chemstations when you stop by their booth at the ASEE annual meeting. I would also like to note that the editorial board of Chemical Engineering Education continues to sponsor the Fahien Award for an outstanding young chemical engineering educator.

Speaking of the annual meeting, register now if you haven't already!

The link is: <http://www.asee.org/conferences/annual/2008>/Hotel rooms seem to be disappearing fast. The meeting program is available on the ASEE website, and it's easy to browse by division. You'll find that we have a workshop on concept inventories and nine sessions of presentations and posters, with moderators from across the nation and an international slate of presenters. Program chair Jason Keith of Michigan Technological University deserves a round of applause for putting this together, organizing the papers into sessions and distributing the reviewing task among the volunteers. Local liaison Joe Shaeiwitz of West Virginia University has arranged the Monday evening division awards banquet at the Penn Brewery. The menu will be German-influenced, and the company will be excellent. Purchase your banquet tickets when you register for the annual meeting; they must be pre-purchased. The agenda for the Tuesday lunchtime division business meeting will go out via the division listserv in June. There is no need to preregister for the business meeting; it's bring-your-own-lunch.

I look forward to seeing all of you June 22 – 25, 2008, in Pittsburgh.



Dr. Valerie Young, Ohio University

## ASEE

**CHEMICAL ENGINEERING DIVISION ELECTION 2008****TO VOTE:**

- **Send e-mail to Secretary-Treasurer, David Silverstein [SilverDL@engr.uky.edu](mailto:SilverDL@engr.uky.edu) with your preferences.**
- **Please include your name to assist in verifying division membership.**
- **Use "ChED Election" as your subject line.**

Choose one for Division Chair-Elect:  
Randy Lewis or write-in

Choose one for Director:  
Eric Maase or Adrienne Minerick

**Votes must be received by May 31st, 2008**

## *Position: Division Chair*

This person would serve one year as Chair-Elect and then then serve as Chair in 2009-2010.

### **Randy Lewis**

Department of Chemical Engineering  
Brigham Young University



Greetings! I (Randy Lewis) greatly appreciate the opportunity to be nominated for the Chemical Engineering Division Chair of ASEE. I have been richly educated through my association with ASEE members and would like to continually give service to this great organization. Based on associations with ASEE members and attendance at ASEE meetings, I would like to implement three goals while serving as Division Chair. First, I would like to enhance the recognition given to ASEE members through increasing the resources available for awards. Second, I would like to enhance the dissemination of chemical engineering education information (past conference talks, Summer School information, web-based resources, etc.) to chemical engineering faculty and graduate students. Faculty and graduate students not attending ASEE meetings would benefit from knowing the available engineering education information. Increased dissemination would increase the visibility of ASEE and would provide greater connectivity to potential ASEE members. Third, I would like to enhance the interaction with new faculty-- the future of ASEE. Possible ideas include spotlighting new faculty in the newsletter, developing a mentoring program, and/or establishing a new faculty subcommittee in which new faculty can work on specific tasks that would strengthen the Division.

My background includes obtaining a BS degree in Chemical Engineering from Brigham Young University and a PhD in the same field from the Massachusetts Institute of Technology. I am currently a Professor at Brigham Young University (BYU) after spending 11 years on the Chemical Engineering faculty at Oklahoma State University (OSU). My ASEE involvement has included regular attendance at ASEE annual meetings, serving as chemical engineering program chair for the 2007 ASEE Annual Meeting, and serving on the organizing committee for the 2007 Chemical Engineering Summer School. I am also actively involved in AIChE, previously serving as Chair of the Student Chapters Committee and as Chair and member of the Career and Education Operating Council.

**Randy Lewis, Chair-Elect** *continued*

On a more personal note, I greatly enjoy incorporating educational aspects into the undergraduate curriculum. While at OSU, I implemented a Chem-E-Car competition associated with AIChE in which the competition is now a regular part of the sophomore/junior curriculum (spanning three classes). Currently, I have partnered with another faculty member at BYU to implement a Global Projects in Engineering and Technology course in which 30 students from all engineering disciplines work on humanitarian-based projects for implementation in other countries. Recent projects have involved the countries of Tonga and Peru.

I look forward to continually serving in ASEE!

**Position: Director**

This person would serve as an advisor to the executive board for a term of 2 years.

**Eric Maase**

Department of Chemical Engineering  
Lafayette College



I am honored to be considered for participation in the ChE division of ASEE as a Director. Currently I am a Visiting Assistant Professor at Lafayette College in the Department of Chemical and Biomolecular Engineering. My research areas include computer simulation and modeling in several areas of chemical engineering for chemical and biochemical systems, in addition to developing and investigating computers and computational simulations as tools in engineering education.

My membership in ASEE dates back to 1993 when I joined the society as an undergraduate student at the University of Maryland - College Park. As a senior in my design course sequence I proposed to my professor (and the professors of the junior and sophomore classes') that selected senior students be allowed to create design teams composed of a senior student as the project leader directing juniors and sophomores acting as team members with the hopeful goal of integrating design projects vertically into the curriculum of multiple classes. This project – along with the student volunteers – represents my first engineering education research. The results of my efforts, uniquely my own and perhaps naively ambitious resulted in a paper and presentation at an ASEE regional meeting. The point of my story is simply to show that my commitments to engineering education and to the ASEE are both long-held passions.

Recently I have co-authored two published papers in the Chemical Engineering Education (CEE) – and have a third under review. I am also working on creating a text suitable for engineering computing courses in an effort to improve the links between computational tools and chemical engineering education and practice. At the forthcoming AIChE annual meeting I will serve as chair for one session and co-chair for a topical in the Education (Group 4) of AIChE.

I would like to draw your attention to an upcoming event in which I am an active participant and developer -- as a member of the Information Technology Group 10e of the AIChE Computing and Systems Technology Division (CAST) division, I will soon be distributing information – please watch for this and let your students know! – regarding a Student Video Contest on the topic "The Future of Chemical Engineering." This contest is taking place on the popular YouTube video sharing web site, and winners of the contest will be invited to show their

*Eric Maase, Director continued*

videos at the 2008 AIChE Annual Conference in Philadelphia. Further information regarding ongoing contest events, prizes, rules, and participants are available online at YouTube at "AICHE 2008 Student Contest" and the FaceBook group "AICHE 2008 Student Contest". Both sites may be found by searching YouTube or FaceBook groups for the terms: AICHE Contest and/or FutureOfChemE. I look forward to hearing from you online.

In short – I am committed to engineering education research and to continue improving my efforts to be an effective engineering educator and researcher and I welcome any opportunity to undertake a larger role in the ChE division of the ASEE.

*Position: Director*

**This person would serve as an advisor to the executive board for a term of 2 years.**

## Adrienne Minerick

Department of Chemical Engineering  
Mississippi State University



Thank you for the chance to run for the position of director. I'd be honored to continue to be involved in the ASEE Chemical Engineering Division as an advisor to the executive committee. I think that my experiences in ASEE as a) an officer in the New Engineering Educators Division, b) an advisor to the Women in Engineering Division Executive Board, and c) a (very green) newsletter editor for this division will enable me to bring ideas and support to the ChED leadership team. I've been actively involved in ASEE at the national level since 2003 when I joined Mississippi State University as an Assistant Professor of Chemical Engineering. I had just completed my M.S. and Ph.D. degrees from the University of Notre Dame and prior to that a B.S. from Michigan Technological University.

ASEE and this division were instrumental in helping me adapt as a new faculty, improve my teaching, and have an impact on my students. Since joining MSU, I have taught the graduate Chemical Engineering Math, Process Controls, Introduction to Chemical Engineering Freshman Seminar, Heat Transfer, and Analytical Microdevice Technology Courses. I've also served as the faculty advisor for MSU's chapter of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCCChE).

One of my passion's is undergraduate research and I have served as co-PI on an NSF REU site, "Chemistry – Chemical Engineering: The Bonds Between Us". My undergraduate students have won four ASEE - SE research poster presentation awards from 2004 to 2006, and have also presented and won awards at national conferences. I have also published 12 education-focused papers in the ASEE proceedings since joining ASEE in 2003, and earned the Thomas C. Evans Instructional Paper Award and the New Faculty Research Awards from ASEE-SE. My research earned a 2007 NSF CAREER award and I have served as PI on other NSF and DOE funded projects. Research interests include electrokinetics, predominantly dielectrophoretic characterizations of cells, and the development of biomedical microdevices. My lab, the Medical micro-Device Engineering Research Laboratory (M.D. – ERL), also inspires the development of Desktop Experiment Modules (DEMOs) for use in undergraduate chemical engineering classrooms or as outreach activities in area schools. In conclusion, I firmly believe education and research scholarship can have a profound impact on students, our educational system, and that ASEE ChED plays a key role in connecting and communicating this to the community.

# ASEE SUMMER SCHOOL 2007

## Article by Kirk Schulz

The Chemical Engineering Division of ASEE holds a summer school for new faculty every 5 years. 2007's school was particularly successful - here are a few highlights.



Immediately following the 2002 Summer School in Boulder, Colorado, planning started immediately for the next summer school. Steve LeBlanc (University of Toledo) and Kirk Schulz (Mississippi State University) were chosen as co-chairs of the 2007 summer school in 2003, and set about planning and raising money for the summer school. Washington State University, under the leadership of Dick Zollars, submitted a proposal to host the summer school in Pullman, Washington, which took place on July 27 – August 3, 2007.

During the week-long summer school, participants went to a plenary session each morning, followed by a 2.5-hour session prior to lunch. The afternoons were kept open for recreational activities and networking, with an additional 2.5 session in the evening time after dinner. Each day was finished off with a poster session and refreshments.

A variety of sessions were held on various topics of interest to the Chemical Engineering educational community. These sessions included:

- Computational Fluid Dynamics (Jennifer Sinclair and Rodney Fox)
- Spreadsheets Across the Curriculum (Brice Carnahan and Dave Clough)
- Molecular Simulation for the Classroom (Dave Kofke and Peter Cummings)
- Computational Quantum Chemistry for the Classroom (Phil Westmoreland and Joe Golab)
- Process Design / Product Design (Warren Seider and Danny Lewin)
- Recent Advances in Chemical Engineering Problem Solving (M. Cutlip and M. Shacham)
- Systems Biology (Frank Doyle and Mike Henson)
- Outcomes Assessment I & Outcomes Assessment II (Joe Shaeiwitz, Daina Breidis)
- New Approaches for Old Courses I (Lower Division) (Don Visco, David Silverstein Jason Keith)
- New Approaches for Old Courses II (Upper Division) (Don Visco, David Silverstein, Jason Keith)

- Novel Experiments, Experimental Design and Analysis throughout the Engineering Curriculum (Robert Hesketh, Stephanie Farrell and Z. Gephardt)
- Bio-Basics for Non-Bio Faculty (Dennis Miller, Mark White, Todd French)
- Safety and Chemical Engineering Education (Tom Spicer)
- Career Development (Tim Anderson, Phil Wankat)
- New Teaching and Learning Pedagogies and Their Assessment (Fred Weber, Bernard Van Wie, Gary Brown)
- Pre-College Activities (Karen High, Taryn Bayles)
- How to Succeed as a Female Engineer in Academia: Lessons Learned (Ann Marie Flynn)
- Sustainability Engineering Workshop (K. Ogden and R. Hesketh)

### Mini-Sessions (1.25 hour mini-sessions)

- Mini-Session #1 – Legal Issues for Chemical Engineering Faculty (Martin High)
- Mini-Session #2 – Remotely Operated Laboratories (Jim Henry)
- Mini-Session #3 – Nanotechnology Education in the Chemical Engineering Curriculum (Yangchuan Xing)
- Mini-Session #4 – Faculty Resources Available from CACHE (Michael Cutlip)

Support for the 2007 Chemical Engineering Summer School was obtained from ExxonMobil, Conoco Phillips, and the National Science Foundation. Without this support, it would not have been possible to pay travel and participant support costs needed to minimize costs to summer school participants.

Several other chemical engineering faculty members played key leadership roles during the summer school including Douglas K. Ludlow (Missouri S&T), Randy Lewis (BYU), and Polly Piergiovanni (Lafayette College).

*Planning for the next summer school will commence soon, and we hope to see a bigger and better summer school in 2012!*

# Meeting Schedule

## Sunday June 22, 2008

### Session 0213: Creating a Comprehensive Concept Inventory: Workshop

9:00 a.m.-Noon *Pittsburgh Convention Center (PCC) 316* **Moderators:** Tim Raymond and Margot Vigeant, Bucknell University

## Monday June 23, 2008

### Session 1113: ChE Executive Committee Meeting

7:00-8:15 a.m. *PCC 401* **Moderator:** Valerie Young, Ohio University-Athens

### Session 1313: The Latest in Improving Learning in ChE Students 10:30 a.m. -Noon *PCC 308*

**Moderator(s):** Zenaida Otero Gephardt, Rowan University ; Milo Koretsky, Oregon State University

AC 2008-228: USING A CONCURRENTLY COLLABORATIVE SPREADSHEET TO IMPROVE TEAMWORK AND CHEMICAL ENGINEERING PROBLEM SOLVING David Silverstein, University of Kentucky

AC 2008-390: DOES ACTIVE LEARNING PROMOTE UNDERSTANDING AND ENTREPRENEURIAL TENDENCIES? William Kelly, Villanova University

AC 2008-673: CHALLENGE-BASED INSTRUCTION IN A MASS TRANSFER AND SEPARATIONS COURSE: DESIGN AND IMPLEMENTATION Nancy Lape,

AC 2008-978: ADDING HANDS-ON PROJECTS AND CRITICAL THINKING EXERCISES TO A THERMODYNAMICS SEQUENCE Donald Visco, Tennessee Technological University

AC 2008-1886: DEVELOPING A SOFTWARE ENVIRONMENT FOR VISUAL LEARNING IN INTRODUCTORY CHEMICAL ENGINEERING CLASSES Richard Zollars, Christopher Hundhausen, Jonathan Brown, Washington State University

AC 2008-2353: LEARNING BY DOING: DOES IT WORK? Sharon Sauer, Scott McClellan, Alfred Carlson, Rose-Hulman Institute of Technology

### Session 1413: Looking at the ChE Curriculum 12:30-2:00 p.m. *PCC 301*

**Moderator(s):** Allen Hersel, Tri-State University ; Polly Piergiovanni, Lafayette College

AC 2008-273: A DEGREE-PROJECT APPROACH TO ENGINEERING EDUCATION Ted Lee, Gisele Ragusa, Katherine Shing, Theodore Tsotsis, Pin Wang, University of Southern California

AC 2008-1137: TRANSFORMING THE EDUCATIONAL EXPERIENCE OF TRANSFER STUDENTS IN CHEMICAL ENGINEERING Vinay Gupta, Aydin Sunol, Babu Joseph, Ryan Toomey, Norma Alcantar, University of South Florida

AC 2008-2010: UNDERGRADUATE ENGINEERING PROGRAM IN NANOMATERIALS, MACROMOLECULES AND INTERFACES Annette Jacobson, Rosemary Frollini, Susana Steppan, Carnegie Mellon University

AC 2008-2477: CHE IN THE 21ST CENTURY: A SURVEY OF THE SKILLS AND KNOWLEDGE TO BE COMPETITIVE IN THE GLOBAL MARKETPLACE David Miller, Rose-Hulman Institute of Technology

AC 2008-2050: PILLARS OF CHE: SYSTEMS ENGINEERING I - AN INTEGRATED COURSE AND LABORATORY EXPERIENCE Robert Parker, Schohn Shannon, University of Pittsburgh

### Session 1513: ChE Lectureship Award and Presentation: 2:15-4:00 p.m. *PCC 305*

Dr. Jennifer S. Curtis from the University of Florida is this year's Chemstations Lectureship Award winner **Moderator:** Kevin Dahm, Rowan University

### Session 1713: ChE Division Awards Dinner: 6:30-8:00 p.m. *Off Site at Penn Brewery*

**Moderator:** Valerie Young, Ohio University-Athens

## Tuesday June 24, 2008

### Session 2113: ChE Department Chair Meeting: 7:00-8:15 a.m. *Off Site*

**Moderator:** Valerie Young, Ohio University-Athens

### Session 2213: Developing Communication/Teamwork Skills in ChEs 8:30-10:15 a.m. *PCC 308*

**Moderator(s):** David Silverstein, Univ of Kentucky; Katherine Taconi, Univ of Alabama, Huntsville

AC 2008-567: INTERVIEW SKILLS TRAINING IN THE CHEMICAL ENGINEERING LABORATORY: TRANSPORTING A PILOT PROJECT Julie Sharp, Vanderbilt

AC 2008-1031: HOW TO HELP SENIOR CHEMICAL ENGINEERING STUDENTS ENHANCE AND DEVELOP THEIR LEADERSHIP COMPETENCE Joan Alabart, Sibel Özgen, Magda Medir, University Rovira i Virgili Hans-Joerg Witt, Witt & Partner

AC 2008-1182: COMPETITION BETWEEN STUDENT GROUPS IN THE PROTEIN PRODUCTION CHALLENGE Brian Lefebvre, Loren Connell, Kevin Dahm, Rowan University

AC 2008-1552: A TEAM LEADER SELECTION PROCESS FOR PROJECT-BASED LEARNING EXPERIENCES Sibel Özgen, Joan Alabart, Magda Medir, University Rovira i Virgili

AC 2008-2114: THE HISTORY AND SOCIETAL IMPACT OF THERMODYNAMICS: A COMPANION COURSE TO CHEMICAL ENGINEERING THERMODYNAMICS I Joseph Menicucci, Betsy Palmer, Montana State University

# Meeting Schedule

**Session 2413: ChE Division Business Meeting** 12:30-2:00 p.m. PCC 403

**Moderator(s):** Valerie Young, Ohio University-Athens

**Session 2513: Novel Courses and Content for ChEs I** 2:15-4:00 p.m. PCC 305

**Moderator(s):** Rebecca Toghiani, Mississippi State University ; Donald Visco, Tennessee Tech

AC 2008-888: STUDENT LEARNING IN STATISTICS: OUTGOING UNDERGRADUATES, INCOMING GRADUATE STUDENTS  
Valerie Young, Ohio University-Athens

AC 2008-1259: DEVELOPMENT OF KINESTHETIC-ACTIVE EXERCISES FOR A TRANSPORT PHENOMENA COURSE Allen White,  
Glen Livesay Kay C Dee, Rose-Hulman Institute of Technology

AC 2008-2087: INTEGRATING ALTERNATIVE ENERGY TECHNOLOGY INTO ENGINEERING EDUCATION Linfeng Zhang,  
Xingguo Xiong, Junling Hu, University of Bridgeport

AC 2008-2320: SERVICE LEARNING OPPORTUNITIES FOR CHEMICAL ENGINEERING STUDENTS: IMPACT ON PERFORMANCE  
Scott McClellan, Sharon Sauer, Alfred Carlson, Rose-Hulman Institute of Technology

**Session 2613: Novel Courses and Content for ChEs II** 4:30-6:00 p.m. PCC 305

**Moderator(s):** Taryn Bayles, University of Maryland-Baltimore County ; Richard Zollars, Washington State University

AC 2008-2170: MAKING THE CONNECTIONS: FACILITATING STUDENT INTEGRATION OF CHEMICAL ENGINEERING  
CONCEPTS INTO A COHERENT FRAMEWORK Rebecca Toghiani, Adrienne Minerick, Keisha Walters, Mississippi State Univ

AC 2008-1005: EXPOSING CHEMICAL ENGINEERING STUDENTS TO REAL WORLD PROBLEMS: HEALTH CARE AND  
RENEWABLE ENERGY SYSTEMS Nichole Au, Taryn Bayles, Julia Ross, University of Maryland-Baltimore County

AC 2008-1726: HANDS-ON CHEMICAL ENGINEERING SENIOR DESIGN: EVOLUTION FROM PAPER TO PRACTICE Margot  
Vigeant, James Maneval, Michael Prince, Michael Hanyak, William Snyder, Bucknell University

AC 2008-1842: DESIGN OF A CARBON NEUTRAL GREENHOUSE FOR GREENFIELD COMMUNITY COLLEGE Lawrence Decker,  
William Hansen, Robert Dewar, Wentworth Institute of Technology

AC 2008-2602: DRAG-AND-DROP GRAPHICAL USER INTERFACE FOR PROCESS CONTROL EDUCATION Ruben Morales-  
Menendez, Tomas Lopez, Ricardo Ramirez Medoza, Luis E Garza, Tecnologico de Monterrey

AC 2008-422: IMPLEMENTING GREEN ENGINEERING PARTNERSHIPS BETWEEN THE UNIVERSITY AND PHARMACEUTICAL  
INDUSTRY Brian G. Lefebvre, Mariano J. Savelski, C. Stewart Slater, Rowan University

## Wednesday June 25, 2008

**Session 3113: Innovations in the ChE Laboratory** 7:00-8:15 a.m. PCC 302

**Moderator(s):** Charles Coronella, University of Nevada-Reno ; Adrienne Minerick, Mississippi State U.

AC 2008-701: ENERGIZING AN INTRODUCTORY CHEMICAL ENGINEERING COURSE WITH BIODIESEL Katherine Taconi, R.  
Michael Banish, University of Alabama, Huntsville

AC 2008-322: ENHANCING THE UNDERGRADUATE CHEMICAL ENGINEERING CURRICULUM WITH AN INDUSTRIAL PROCESS  
SAFETY APPROACH Bruce Vaughn, Rose-Hulman Institute of Technology

AC 2008-1258: ADDING EQUIPMENT TO MAKE E-85 IN THE UNIT OPERATIONS LABORATORY John Wagner, Majid Salim,  
Allen Hersel, Tri-State University

AC 2008-2958: DEVELOPMENT OF A BIOENGINEERING CONCENTRATION IN THE DEPARTMENT OF CHEMICAL ENGINEERING  
AT PRAIRIE VIEW A&M UNIVERSITY: OUTCOMES AND LESSONS LEARNED Felecia Nave, Michael Gyamerah, Irvin  
Osborne-Lee, Prairie View A&M University

AC 2008-2073: RE-DESIGNING YOUR OWN EXPERIENCE: GUIDED STUDENT DESIGNED EXPERIMENTS IN AN  
INTRODUCTORY LABORATORY BASED CHEMICAL AND BIOLOGICAL ENGINEERING COURSE Joseph Menicucci, Abigail  
Richards, Crystal Girardot, Betsy Palmer, Montana State University

**Session 3213: ChE Poster Session** 8:30-10:15 a.m. PCC Exhibit Hall B - Division 6

**Moderator(s):** Jason Keith, Michigan Tech University; Sundararajan Madihally, Oklahoma State Univ

AC 2008-2593: INCORPORATING LEARNING STYLES INTO CONTINUING ENGINEERING EDUCATION: A PROCESS HEATER  
CASE STUDY Charles Baukal, Wes Bussman, John Zink Institute

AC 2008-2151: RESULTS AND INITIAL DISSEMINATION OF THE PILLARS CURRICULUM AT PITTSBURGH Joseph McCarthy,  
Peter Williams, Mary Besterfield-Sacre, Robert Parker, University of Pittsburgh

AC 2008-172: VISUAL BASIC SOFTWARE FOR DESIGN AND PERFORMANCE PROBLEMS Noah Brak, Joseph Shaeiwitz,  
Richard Turton, West Virginia University

AC 2008-1183: SUSTAINING CHEMICAL ENGINEERING UNDERGRADUATE CURRICULUM REFORM Larissa Pchenitchnaia, Lale  
Yurttas, Jeffrey Froyd, Texas A&M University

AC 2008-2205: SIMULATION-BASED LEARNING OF DISTILLATION PRINCIPLES IN HISTORICAL CONTEXT: FROM DA VINCI'S  
ALEMBICS TO MODERN APPLICATIONS Yakov Cherner, ATeL, LLC, Jerry Meldon, Tufts University, Anatoly Peresunko,  
Southern Federal University (Russia)

AC 2008-74: ORAL COMMUNICATION SKILLS WORKSHOP FOR STUDENTS IN ENGINEERING AND APPLIED SCIENCE William  
Krantz, National University of Singapore

# Meeting Schedule

- AC 2008-1028: TEACHING SIX SIGMA CONCEPTS IN AN ENGINEERING COLLEGE  
Hyerim Kim, Jiyong Kim, Yoon-Su Baek, Il Moon, Yonsei University
- AC 2008-2161: STARTING OVER! NEW INSTRUCTORS TEAM-TEACH AN ESTABLISHED COURSE: A HANDS-ON INTRODUCTION TO CHEMICAL AND BIOLOGICAL ENGINEERING COURSE, VERSION 2. Joseph Menicucci, Abigail Richards, Crystal Girardot, Betsy Palmer, Montana State University

## Session 3513: New Ideas for ChEs I (aka ChE Potpourri)

2:15- 4:00 p.m. PCC 302 **Moderator(s):** James Abulencia; Nada Assaf-Anid, Manhattan College

- AC 2008-2368: A STUDY OF STUDENT RETENTION USING RAPID AND REPETITIVE TESTING: PRELIMINARY CLASSROOM RESULTS FROM AN FE REVIEW COURSE  
Franklin King, Shamsuddin Ilias, North Carolina A&T State University
- AC 2008-1147: IDEAS TO CONSIDER FOR NEW CHEMICAL ENGINEERING EDUCATORS: FRESHMAN AND SOPHOMORE LEVEL COURSES Jason Keith, Michigan Technological University, David Silverstein, University of Kentucky, Donald Visco, Tennessee Technological University
- AC 2008-221: A SURVEY-BASED STUDY TO IDENTIFY METHODS FOR ACHIEVING POSITIVE OUTCOMES FOR UNDERGRADUATE RESEARCHERS Tamara Floyd-Smith, Tuskegee University
- AC 2008-2160: TEACHING EXPERIMENTAL DESIGN USING VIRTUAL LABORATORIES: DEVELOPMENT, IMPLEMENTATION AND ASSESSMENT OF THE VIRTUAL BIOREACTOR LABORATORY Christine Kelly, Oregon State University, Edith Gummer, Northwest Regional Education Laboratory, Philip Harding, Milo Koretsky, Oregon State University
- AC 2008-410: CACHE MODULE DEVELOPMENT FOR INTRODUCING ENERGY INTO THE CHEMICAL ENGINEERING CURRICULUM: FUEL CELLS Jason Keith, Michigan Technological University, H. Scott Fogler, Valerie Thomas, University of Michigan, Don Chmielewski, Illinois Institute of Technology, Michael Gross, Bucknell University

## Session 3613: New Ideas for ChEs II (aka ChE Potpourri)

4:30-6:00 p.m. PCC 302 **Moderator(s):** Sharon Sauer, Rose-Hulman Institute of Technology; Margot Vigeant, Bucknell University

- AC 2008-1244: BACKWARDS CONTROLS TEACHING: TRIAL-AND-ERROR THEN LEARNING Jim Henry, University of Tennessee-Chattanooga, Richard Zollars, Washington State University
- AC 2008-976: A WEB-BASED INTERACTIVE SCIENCE AND ENGINEERING LEARNING TOOL THAT PROMOTES CONCEPT-BASED INSTRUCTION Milo Koretsky, Bill Brooks, Oregon State University
- AC 2008-1024: KIDS BIRTHDAYS PARTIES: "HAVING FUN AND LEARNING ENGINEERING" Gerardine Botte, Keeley Schneider, Bryan Boggs, Ohio University
- AC 2008-2070: INTRODUCING ENGINEERING THROUGH CANDY Michael Birnkrant, Cathell, Drexel University Priscilla Blount, Jean Robinson, Martha Washington Elementary School, Adam Fontecchio, Eli Fromm, Drexel University
- AC 2008-2747: INTRODUCING CHEM-E-CAR COMPETITION IN FRESHMEN ENGINEERING CLASS Sundararajan Madihally, Oklahoma State University

## CHEMICAL ENGINEERING DIVISION LEADERSHIP

### Valerie Young

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### Don Visco

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### David Silverstein

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### Newsletter

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Register at: <http://www.asee.org/conferences/annual/2008/>