

CIRTL Forum 2005

Addressing the Student Learning Experience:

Achieving Diversity in STEM Disciplines

May 25-26, 2005

Madison, WI

May 25, 2005

Wednesday

7:30	<i>Continental Breakfast</i>	Wisconsin Ballroom
8:30	<i>Introductions & Welcome</i>	Wisconsin Ballroom
9:15	<i>Panel:</i> _____ Defining the STEM Landscape: The Status of Women and Underrepresented Minorities at the Undergraduate, Graduate and Faculty Levels <i>Donna Nelson, University of Oklahoma</i> <i>Justine Johnson, University of Maryland, Baltimore County</i> <i>Catherine Millett, Educational Testing Service</i>	Wisconsin Ballroom
	<i>Chair: Laura Pauley</i> <i>Discussant: Alberto Cabrera</i>	
10:30	<i>Break & Network Time</i>	Capitol Ballroom
11:15	<i>Breakout I & Poster Session I</i>	see reverse
12:15	<i>Lunch</i>	Capitol Ballroom
1:30	<i>Panel:</i> _____ The Graduate Student Experience <i>Cecilia Marzabadi, Seton Hall University</i> <i>Joe Martinez, University of Texas at San Antonio</i> <i>Isiah Warner, Louisiana State University</i>	Wisconsin Ballroom
	<i>Chair: Robert Maleczka</i> <i>Discussant: Carol Colbeck</i>	
2:45	<i>Break & Network Time</i>	Capitol Ballroom
3:30	<i>Breakout II & Poster Session II</i>	see reverse
5:00	<i>Reception</i>	University Room
5:45	<i>Dinner</i>	Capitol Ballroom
7:30	<i>CRLT Theatre Program presents "Conflict in the Classroom"</i>	Wisconsin Union Theater on the University of Wisconsin campus

May 26, 2005

Thursday

7:45	<i>Continental Breakfast</i>	Wisconsin Ballroom
9:00	<i>Panel:</i> _____ Promoting Undergraduate Student Success <i>Karl Smith, University of Minnesota</i> <i>Craig Nelson, Indiana University</i> <i>James Epperson, University of Texas at Arlington</i>	Wisconsin Ballroom
	<i>Chair: Domenic Santavicca</i> <i>Discussant: Susan Bracken</i>	
10:15	<i>Break & Network Time</i>	Capitol Ballroom
11:00	<i>Breakout III & Poster Session III</i>	see reverse
12:15	<i>Reverse Panel</i>	Wisconsin Ballroom
1:00	<i>Lunch</i>	Capitol Ballroom

Breakout Session Schedule

Breakout I

11:15-12:15 Wednesday

<i>Continuing the Discussion with Panelists</i>	Conference I
<i>"It should be clear to students that I treat everyone the same" and other strategies that don't work very well</i>	Conference II
<i>Graduate Engineering Research Scholars Program</i>	Conference III
<i>Case Studies in Inclusive Teaching in Science, Technology, Engineering and Mathematics</i>	Conference IV
<i>Diversity Institute Literature Review and Resource Book</i>	Conference V
<i>Classroom Climate</i>	Senate A
<i>Gateway Science at Large Institutions: Leveraging Change Through Teaching Assistant Training</i>	Senate B

Breakout II

3:30-4:30 Wednesday

<i>Continuing the Discussion with Panelists</i>	Conference I
<i>"It should be clear to students that I treat everyone the same" and other strategies that don't work very well</i>	Conference II
<i>Graduate Student Panel: Addressing Learning-through-Diversity in Practice</i>	Conference III
<i>Case Studies in Inclusive Teaching in Science, Technology, Engineering and Mathematics</i>	Conference IV
<i>The Age of Enlightenment: Engagement & Preparation in STEM in the Middle School and High School Years</i>	Conference V
<i>In Their Own Words Video Workshop</i>	Senate A
<i>Content Matters: Including Women in Course Content in STEM, Session I</i>	Senate B

Breakout III

11:00-12:00 Thursday

<i>Continuing the Discussion with Panelists</i>	Conference I
<i>Engaging Diversity through Process, Structure, and Content</i>	Conference II
<i>Mentoring and Diversity: Preparing Students for Graduate Studies in Science, Engineering and Mathematics</i>	Conference III
<i>Inclusive Departmental Climate</i>	Conference IV
<i>Diversity Institute Literature Review and Resource Book</i>	Conference V
<i>The Art of Interactive Theatre: Strategies for Using Theatre to Create Dialogue</i>	Senate A
<i>Content Matters: Including Women in Course Content in STEM, Session II</i>	Senate B

Breaks & Network Time

The purposes of these network times are to:

- o Continue discussion about ideas generated by the panels
- o Expand your network of colleagues

Details for each network time will be announced as they occur, but in general, please:

- o Help yourself to refreshments and take the necessary break time.
- o Seek out new people for continued conversation during each network time. Feel free to walk around the block with a few colleagues, find a comfortable place in the lobby, create a circle of chairs in the ballroom, or join a roundtable discussion.
- o If you are going to join one of the tables provided for small group discussion, please fill in all seats at one table before starting a new table.
- o We will begin the breakout sessions on time. Please leave yourself 10 minutes to choose your breakout session and to find the meeting room.

Break I

10:30 am Wednesday

What issues stood out for you in the panel presentation? Were the conclusions consistent with your expectations, or did you encounter unexpected findings?

What did you learn that might be valuable to you at your own institution?

How might you as an individual address some of the challenges in diversifying STEM in the context of your own position?

Break II

2:45 pm Wednesday

What practices, strategies or ideas stood out for you in the panel presentation?

What did you learn that might be valuable to you at your own institution?

Are there exemplary graduate programs or practices at your institution that would be valuable for others to know about?

Break III

10:15 am Thursday

What practices, strategies or ideas stood out for you in the panel presentation?

What did you learn that might be valuable to you at your own institution?

Are there exemplary undergraduate programs or practices at your institution that would be valuable for others to know about?

Reverse Panel Discussion

The purpose of the "reverse panel" is to give all Forum participants the opportunity to share thoughts and ideas or to ask questions to the panelists or participants. This is your opportunity to respond to something you have learned or to make a comment of general interest to the conference.

If you prefer to ask your question in written form, a box will be available during the course of the conference. The session chair will read selected questions from this box during the reverse panel presentation.

Please limit your question or comments to 90 seconds to allow time for everyone to speak. The reverse panel is an appropriate time to ask questions of broad significance; specific questions are most appropriate for the breakout sessions or break/network times.

Poster Session Schedule

Poster Session I

11:15-12:15 Wednesday

- Kansas State University: *Research, Mentoring, and Career Development Opportunities for Women and Underrepresented Groups at Kansas State University* [21]
- Mississippi State University: *Achieving Diversity in STEM Disciplines* [15]
- Rutgers University: *Paving the Pathway to Ph.D. Studies in the Sciences* [12]
- University of California Santa Barbara: *Expanding Pathways to Science, Engineering and Mathematic Fields* [4]
- University of Chicago: *Educational and Outreach Initiatives in the Physical Sciences at the University of Chicago* [6]
- University of Oklahoma: *Diversity at the University of Oklahoma: Building on Success* [7]
- University of South Carolina: *STEM Diversity Programs at USC* [23]
- University of Wisconsin, College of Letters and Science: *Education and Outreach in Environmental Justice* [18]

Poster Session II

3:30-4:30 Wednesday

- CIRTL Diversity Institute: *The CIRTL Diversity Institute* [5]
- Purdue University: *Transforming Faculty & Staff through Diversity Forums* [11]
- Syracuse University: *The Central New York – Puerto Rico AGEP* [16]
- University of Colorado at Boulder: *STEM Diversity Support: Undergraduate & Graduate Students, Postdocs, & Faculty* [2]
- University of Missouri-Columbia: *From Undergraduate Scholar to New Faculty Member: Developing a Comprehensive Diversity Agenda* [9]
- University of Washington: *An Array of Programs Aimed at Making STEM Disciplines Inclusive Communities* [13]
- University of Wisconsin, Delta Program: *Delta Program in Research, Teaching and Learning* [20]
- Virginia Tech: *A Pipeline Model for Contemporary Pedagogical Practices in STEM* [24]

Poster Session III

11:00-12:00 Thursday

- Colorado State University: *Diversity Initiatives at Colorado State University* [19]
- University of Arizona: *UA/Sloan Foundation Native American Partnership* [8]
- University of Arkansas: *Strengthening Diversity in an Interdisciplinary Graduate Program at the Univ. of Arkansas* [22]
- University of Kentucky: *Using successful STEM diversity programs to move toward an institutional change at the University of Kentucky* [1]
- University of Michigan: *Graduate Student Life: Recruitment, Retention, Awareness* [10]
- University of Wisconsin, Howard Hughes Medical Institute: *The Diverse Benefits of Mentor Training* [14]
- Virginia Commonwealth University: *Project PRISM: Producing Results in Science and Mathematics* [17]
- Washington University in St. Louis: *Recruiting and Retaining Diverse Students at Washington University in St. Louis* [3]

Breakout Session Descriptions

Continuing the Discussion with Panelists

This session will follow up on the panel presentation, allowing Forum participants to engage with the speakers interactively and in more depth. Session participants will be invited to pose questions to the panelists regarding the details of their programs, analysis methods, or findings. The panelists will thus have the opportunity to present information that could not be included in the short panel presentation.

The Age of Enlightenment: Engagement & Preparation in STEM in the Middle School and High School Years

Catherine Millett
Research Scientist, Policy Evaluation and Research Center
Educational Testing Service

The Art of Interactive Theatre: Strategies for Using Theatre to Create Dialogue

Jeffrey Steiger
Director, CRLT Theatre Program
University of Michigan

In this session, participants will have the opportunity for a greater discussion regarding the interactive theatre techniques utilized in the CRLT Theatre Program performance of 'Conflict in the Classroom' Wednesday evening. In a typical interactive theatre performance, actors perform a sketch that dramatizes issues of diversity in the classroom or academic setting. Following the scene, audience members engage in a conversation with the characters (actors continue portraying the character they played in the sketch) to explore the dynamics in the classroom scene or academic setting. Eventually strategies are generated for changing the dynamics or outcome of the previous scene. In some performances, audience members themselves take turns stepping into the role of the instructor to act out proposed strategies. Attendees will strategize possible applications to their institutions and learn the basics of creating interactive theatre and actor training. This session should particularly benefit those who seek a creative, 'safe', and yet powerful format for community engagement and institutional transformation as well as an innovative way to present qualitative research.

Classroom Climate

Alberto Cabrera
Professor, Department of Educational Leadership and Policy Analysis
University of Wisconsin

Carol Colbeck
Director, Center for the Study of Higher Education
Pennsylvania State University

This session is for instructors interested in learning about the different elements comprising the classroom and their effects on students' gains in competencies. This seminar is based on the results of a five year NSF-funded project aimed at improving classroom practices among Engineering undergraduate. Particular emphasis would be placed to the role of inclusive teaching practices as a mechanism to foster professional self-confidence among women in Engineering.

Diversity Institute Resources I: Content Matters: Including Women in Course Content in STEM

Mary Wyer

Assistant Professor, Department of Psychology
North Carolina State University

Ellen Damschen

Graduate Student, Department of Zoology
North Carolina State University

Session I:

This breakout session will provide a basic introduction to making revisions in course content in order to foster an inclusive classroom climate. A presentation followed by discussion will cover topics such as: assessing current course content, identifying strategic enrichments, locating and "translating" appropriate material, responding to students' reactions, and evaluating impact.

Session II:

This breakout session will report on a three-semester study to develop, deliver, and then assess the impact of women's studies course enrichments in an ecology course. The session will include "before" and "after" examples of specific lecture content, measures of students' assessments of the classroom climate, and an analysis of the evidence for change as a result of the enrichments.

Diversity Institute Resources II: Case Studies in Inclusive Teaching in Science, Technology, Engineering and Mathematics

James Stith

Vice President, Physics Resources Center
American Institute of Physics

Diversity Institute Resources III: Literature Review and Resource Book

Judith Burstyn, Katherine Friedrich, Levi Giovanetto, Diversity Institute Scholars

Looking for answers to diversity-related questions? Let the Diversity Institute resources help you. This hands-on session will provide you with the tools you need and practice in addressing educational challenges.

Engaging Diversity through Process, Structure, and Content

Chris Carlson-Dakes

Associate Director, Delta Program in Research, Teaching and Learning
University of Wisconsin

It is common to address diversity issues by adapting the existing content, using new content as an "add-on", or by modifying the process and structure of a learning experience. This session will present a model, and engage participants in a mini-experience that demonstrates how the process and structure of professional development programs have become integrated with the content to address diversity issues. If you're not sure what this means, please join us and let's figure it out together.

Gateway Science at Large Institutions: Leveraging Change Through Teaching Assistant Training

Constance Cook

Director, Center for Research on Learning and Teaching
University of Michigan

Christopher O'Neal

Instructional Consultant, Center for Research on Learning and Teaching
University of Michigan

Mary Wright

Instructional Consultant, Center for Research on Learning and Teaching
University of Michigan

Inclusive Departmental Climate

Isiah Warner

Vice Chancellor, Office of Strategic Initiatives
Boyd Professor and Philip W. West Professor of Analytical and Environmental Chemistry
Louisiana State University

Steven Watkins

Associate Professor, Department of Chemistry
Louisiana State University

In Their Own Words Video Workshop

Sherrill L. Sellers

Assistant Professor, School of Social Work
University of Wisconsin

Sandra Courter

Director, Engineering Learning Center
University of Wisconsin

The ITOW Video Workshop is designed to engender discussion among engineering faculty about what the learning environment is, how to identify and address "underground" climate issues, and how to enhance student ability to learn. The workshop explores all aspects of the learning environment (the classroom, labs, team experiences, and outside-the-class activities) as students experience it. ITOW workshops can and have lead to real change within departments or units including raised awareness about student learning experiences, additional workshops on team building or equity issues, or the development of departmental initiatives to improve communication among students and faculty.

"It should be clear to students that I treat everyone the same" and other strategies that don't work very well

Wayne Jacobson

Associate Director, Center for Instructional Development and Research
University of Washington

Lois Reddick

PhD Candidate, Department of Teaching and Learning
New York University

Graduate Student Panel: Addressing Learning-through-Diversity in Practice

Donald Gillian-Daniel
Internship Program Developer, Delta Program in Research Teaching and Learning
University of Wisconsin

In this session a panel of Delta graduate student interns will share their experiences thinking about and engaging diversity in their projects. In addition to having an opportunity to address the panel with questions and comments, audience members will have a chance to reflect on how graduate students through faculty could engage Learning-through-Diversity more fully on their own campuses.

Graduate Engineering Research Scholars Program

Douglass Henderson
Associate Dean of Diversity Affairs, College of Engineering
University of Wisconsin

Kelly Burton
Graduate Student Services Coordinator, College of Engineering
University of Wisconsin

Mentoring and Diversity: Preparing Students for Graduate Studies in Science, Engineering and Mathematics

Justine Johnson
Assistant Director, Meyerhoff Biomedical Fellows Program
University of Maryland, Baltimore County
