



**ERIE COMMUNITY COLLEGE**  
STATE UNIVERSITY of NEW YORK

and



**New York State Mathematics  
Association of Two-Year Colleges**

present the **Region 1 Fall 2010 Conference**  
**Saturday, October 23, 2010**  
**PROGRAM**

**8:00 – 8:45**  
K-100

**Registration & Continental Breakfast**

**8:45 – 9:00**  
K-100

**Conference Introduction**  
Erie Community College Representative

**9:00 – 9:30**  
K-100

**KEYNOTE PRESENTATION**

**Lack of Deep Conceptualization on Key Concepts: The Case of Slope**

Deborah Moore-Russo, State University of New York at Buffalo

In mathematics, as in other areas, there are key concepts and skills that permeate the curriculum and define the subject. This presentation will briefly outline some key mathematical ideas before zeroing in on the concept of slope. It will introduce different ways of conceptualizing slope. Then it will consider the conceptualizations that are most commonly promoted in the secondary curriculum and reflect on this potential impact on the mathematics taught in two-year colleges.

**9:40 – 10:10**

**Session I**

K-237

**Rethinking the Math Course for Humanities Students**

Gerald Rising, State University of New York at Buffalo

This talk will outline the approach Gerald Rising and Julie Sarama are taking in a new text for those humanities students who are often dragooned into such required courses. This presentation will illustrate the drafts currently used by using chapter drafts in a class at Buffalo State College. An opportunity to obtain drafts will be provided.

K-238

**Dynamic Excel for Families of Functions**

Daniel Taylor, State University of New York at Buffalo

In order to illuminate the growth patterns of linear, quadratic, and cubic functions, Microsoft Excel 2007 can be utilized to show an amalgam of graphical representations of these functions. With appropriate set-up, one can investigate and visually see how these functions are similar and different. With the enhancements with MS Excel, one can even select data and instantly receive the corresponding graphs. Organizing the data dynamically also provides the user the flexibility to choose initial conditions, the table's intervals and then instantly see how changing these table values changes graphically.

- K-136                    **Ideas for Redesigning Developmental Courses**  
Dianna Cichocki, Erie Community College – South  
Redesign of developmental courses is a topic that is receiving much attention. Ideas for redesign have been recently discussed at both AMATYC and NYSMATYC conferences. Please come to this session to share what your institution is discussing and hear what other institutions are thinking concerning their developmental program.
- 10:15 – 11:15            Session II**
- K-230                    **Baseball and Pythagoras**  
Ernie Danforth, Corning Community College  
The foremost baseball statistician of our time, Bill James, has developed a formula that can be used to predict the number of games a team will win based on the number of runs a team scores and gives up. The formula is called the Pythagorean Expectation. The presenter will demonstrate the formula and test it in some historical and modern day settings.
- K-232                    **Technology for Mathematics Instruction**  
David Usinski, Erie Community College – City  
In this presentation, a review of the plethora of technologies the presenter has used in facilitating mathematics instruction from arithmetic to calculus including web-based homework assignments, free technologies available on the Internet, and hardware in the classroom. This is not an advertisement or infomercial for any particular technology, but rather a summary of the presenter's experiences.
- 11:25 – 11:55            Session III**
- K-230                    **Biometric Recognition: Overview of An Iris Recognition System Algorithm**  
Frederick Kiefer, Erie Community College – North  
First we discuss an algorithm that encodes an iris image and build feature templates using log-Gabor filtering. These templates are much like 2D bar codes. We then explain an algorithm that uses Hamming distance to compare intra-class or inter-class feature templates in order to validate identity.
- K-234                    **Students' Understanding of Multiple Representations of Derivatives and Their Relationship to Limits and Slope**  
Susan Bateman, State University of New York  
This presentation discusses the results of a questionnaire given to 50 students in a Business Calculus course, related to derivatives and relationships between derivatives, slope, and limits. Students were provided with graphical, algebraic, and verbal representations of derivatives and asked to explain their answers.
- K-237                    **Future and Novice Teachers' Basic Geometric Knowledge**  
Janine Viglietti, State University of New York at Buffalo and Erie Community College – North  
The proposed presentation reports the results of statistical analyses conducted to explore future and novice mathematics teachers' basic geometric knowledge. Variables discussed include the teachers' prior coursework, pictorial versus written representations, and overall scores.
- 12:00 – 12:45            Lunch in the Erie Room**

Erie Room

**12:55 – 1:55**

**Session IV**

K-135

**Issues Facing Department Chairs**

Adrian Ranic, Erie Community College – North

A roundtable discussion of issues in mathematics education from the perspective of the department chair.

K-237

**(Take a) BREAK (from) THE RULES! Enhancing Preservice Teachers' Understanding of Fractions Using Manipulatives**

Gail Butler, Erie Community College – North

Participants will use manipulatives (pattern blocks and Cuisinaire Rods) to explore fractions and fraction operations with particular emphasis on multiplying and dividing without using the common algorithms.

K-234

**Pearson Education Presentation**

Collin Wittman, Pearson Higher Education

**2:00 – 3:00**

**Session V**

K-238

**Maple with Minimal Syntax**

Brian Milleville, Erie Community College – South

To illustrate how to use Maple for those who don't know the syntax and commands. Most computations, symbolic manipulation, and graphics can be done without complicated input.

K-230

**Book Review: Why Student's Don't Like Math**

Lynette Meslinsky, Erie Community College – City

This presentation will review the above book and include its' implications for the teaching and learning of mathematics in the college classrooms.

K-232

**Wiley Publishing Presentation**

Renee Tarrant, Wiley Publishing

Questions: Contact Diane Zych at [zych@ecc.edu](mailto:zych@ecc.edu); Mark Marino at [marinom@ecc.edu](mailto:marinom@ecc.edu); Linda Perel at [perel@ecc.edu](mailto:perel@ecc.edu)