

2008 MichMATYC Program

Keynote: 8:45 – 9:45 AM

When Am I Ever Going to Use This? – Frank Wilson, Chandler-Gilbert Community College, Arizona

Brain research has shown that when learners encounter new information that makes sense and has personal relevance, they are better able to retain the new information. As math educators, we too often fail to help students see the relevance of the mathematics they are learning as evidenced by the incessant question, “When am I ever going to use this?”

In this keynote presentation, Frank Wilson will share strategies he uses to help students apply mathematics in meaningful ways in their personal lives.

Concurrent Session 1: 10:00 – 10:50 AM

Breaking News! Students Actually Do Their Algebra Homework – Ria Thomas, Annette Magyar, Southwestern Michigan C

Take your Elementary Algebra course and enhance mastery and retention by incorporating a computerized learning system for outside-of-class work. Participants will receive step-by-step explanation on how to combine a computerized homework-mastery component with their current classroom format. The presenters use a lecture/collaborative group format within the classroom and have added the computer-based mastery approach for homework with great student success.

Is there value in using on-line homework systems? – Ann Borland, WileyPlus; Jim Egan, WashtenawCC

We will discuss the benefits and challenges to both the professor and the students in using these systems in the traditional classroom, as well as the online environment. This will be a peer-to-peer discussion about the value, challenges, and the future use of these systems.

Some Fresh Ideas for Traditional Calculus Courses – Jim Trefzger (AMATYC Midwest Vice President), Parkland C, Illinois

The intended audience is teachers of the Engineering Calculus Sequence, though some of the ideas could also be used in Business Calculus or Technical Calculus courses.

Introductory Statistics: Here's What We're Doing – Doug Mace, Kirtland CC; Paul Drelles, Westshore CC; Jim Ham, Delta C

The presenters will share the common and different features of their *Introductory Statistics* classes. Topics include, but are not limited to, the following: The class textbook used; the nature of class projects; how homework is assigned and graded; how student grades are determined; the nature of the final class project; the topics covered; and classroom discourse. After brief presentations, participants will be invited to ask questions and share their current practices in *Introductory Statistics*.

Can Students Really Do Quality Group Projects? – Deb Pharo, Northwestern Michigan C

This session will showcase student group projects from mathematics classes at NMC. Copies of assignments and samples of student work will be on display. Several books that the presenter has gotten good projects from will also be on display. Those attending this session will be encouraged to discuss their experiences with group projects including, but not limited to: where to find good group projects, how to establish groups, grading of projects, and how to deal with dysfunctional groups/group members.

Visit the Exhibitors: 10:50 – 11:30 AM

Concurrent Session 2: 11:30 AM – 12:20 PM

Online Calculus – Maria Andersen, Muskegon CC

Calculus is a difficult course to learn when you are in a traditional classroom. Move the course online, and not only is it hard, but there are a multitude of technical obstacles to overcome. How do you collect homework? How do students show work? How do you effectively communicate mathematical concepts on a text-based message board? How can you provide instruction so that students actually watch and listen? I don't claim to have all the answers, but certainly my experiences over the last year have provided some. We've learned how to use WebAssign, Jing, Screencast, HTML, avatars, calculator emulators, WizIQ, and more to make this an effective Calculus experience and a pretty amazing technology experience. If you're planning to put one of these graphics-intensive math courses online, I can help you flatten the learning curve.

Discover, Create, and Solve: Engaging Activities that Make Learning Real – Frank Wilson, Chandler-Gilbert Community College, Arizona

In this hands-on session, participants will work through classroom activities that engage students in the learning process. By learning mathematics in interesting real-world contexts, students are able to discover the personal relevance of the mathematics they learn. All participants will be given a packet of learning activities they can use in their classes.

Improving Student Performance With Mastery Based Software – Merideth Thomerson, Hawkes Learning Systems

Discover the benefits of using interactive software in teaching and learning mathematics. Hawkes Learning Systems (HLS) promotes grade improvement and motivates students to succeed by engaging them in the learning process. Students learn more efficiently and effectively through tutorials, unlimited practice, mastery-based homework assignments, and error-specific feedback. HLS is the solution for your students' success!

Department Chair Panel – Barb Jur, Macomb CC; Jim Egan, Washtenaw CC; Kris Chatas, Washtenaw CC; Vinnie Maltese, Monroe CCC; Lois Bearden, Schoolcraft CC; Todd Troutman, Lansing CC

This panel will facilitate the sharing of best practices for dealing with the myriad challenges and opportunities that department chairs face each semester. Come and share your strategies and learn from your colleagues to help make your job as chair run more smoothly.

Engaging the Pre-Service Teacher in the Statistical Process - Teacher and Student Reflections – Darlene Kohrman, Kalamazoo Valley CC

This presentation will share insights, methods and activities as a means of engaging our prospective elementary and middle school teachers on the use of the "statistical process". Activities, text book ideas, problems, assessment questions and sample projects will be shared. Also highlighted will be the thoughts and comments from students on the required capstone project.

Lunch & Business Meeting: 12:20 – 2:00 PM

Concurrent Session 3: 2:00 – 2:50 PM

Using Digital Pens in Teaching Mathematics Online and in the Classroom – Sam Bazzi, Henry Ford CC

The presenter will share and demonstrate his positive experience using three different digital pens in his traditional and online math courses. The pens will enable both students and instructors to communicate easily and effectively without the need to use math software such as equation editors and graphers. One of the pens presented at the session is capable of recording the lecture (audio) while taking notes. Those recorded lectures can be published online and then students can choose to play a part of the recorded lecture without the need to play the entire lecture. The pens may be recommended for use by instructors and students as well when comparing their prices with other portable options such as tablet pc.

What's the point? – John Dersch, Grand Rapids CC

Most of us take decimal fractions for granted and may think of them as nothing more than a device for simplifying computations. Indeed that was the primary reason they were developed, but a close look reveals that they influenced 17th century mathematicians' understanding of number, variable, the continuum and the development of calculus. In this talk we begin with the calculus of Newton and Leibniz, then travel back to the analytic geometry of Fermat and Descartes, ending at Simon Stevin's 1585 publication "L'arithmétique" and its appendix "De Thiende" (The Tenth), with side trips to contributions from the Greeks, the Arabs and wherever else the road takes us.

The Right Stuff Project: Refocused College Algebra at Delta College – Randy Nichols, Delta C

This will be a short discussion of our preliminary findings of an assessment project designed to look at the success of students in a college algebra course using a modeling approach as outlined by the Right Stuff Project as compared to students in a traditional math course. We used two surveys and shared final exam questions to assess our students' opinions and success over the Winter and Spring 2008. Five faculty (8 sections) participated in the modeling course and their results were compared to the results of 8 faculty (11 sections) who taught the traditional course.

Come see our results and hear our opinions about our first attempt at teaching a college algebra course using a modeling approach.

Video Lectures in Blackboard Using Camtasia – Mark Hopkins, Oakland CC

No software can truly take the place of the "Traditional classroom lecture", but through software like Camtasia and an ELMO that can record and capture video, online lectures are now enhanced, thus bridging the gap between the traditional lecture and the online lecture.

Turning Point Technology Clickers in the Intermediate Algebra class – Anna Cox, Kellogg CC

Using individual response systems in the classroom has been an interesting experience. My students have been more engaged and yet my classroom is much quieter. I love the ease of using this system; and the results have been impressive. I will share how I have been using the system and how to get started. It has been an amazing technology tool.

Concurrent Session 4: 3:00 – 3:50 PM

Organizing your digital self – Maria Andersen, Muskegon CC

Going "digital" can be a bit overwhelming. How do you keep track of your links, files, blogs, email, and website materials? How do you go about organizing and sifting through the vast array of resources on the Internet and turning them into an easy-to-use and coherent set of learning materials for the classroom or online environment? I don't claim to have all the answers, but I'll tell you what seems to work for me (and what hasn't).

Retaining All/More of Your Students: Math Success – Jack Rotman, Lansing CC

What can we do to help more students succeed at a high level? What factors contribute to 'failures' in mathematics? This session will present specific techniques that you can use to improve student performance! Whether you teach "developmental", "applied", or "intensive" mathematics, you will come away with new ideas.

Mathematics and Music: How Brass Instruments Work – Jim Trefzger (AMATYC Midwest Vice President), Parkland C, Illinois

Developmental math is all that's needed to understand what notes a bugle can play (without the benefit of valves) or why three valves are sufficient to allow brass instruments to play all 12 notes of a chromatic scale. All of the theory is illustrated musically.

Recreational Mathematics – Tom Wells, Delta C

This session is a presentation of fun recreational mathematics ideas to use in the classroom to promote good mathematical thinking and to expose students to the "beauty of mathematics". We will discuss exercises involving code-breaking, card trickery, logic puzzles, number theory, credit card numbers and a few other topics.

Going the Distance in Education – Nancy Sattler (AMATYC Treasurer, Terra CC, Ohio)

Ever wonder about best practices for online education? How can you provide a good learning environment for your students? How can you create an online course without having to purchase special software? Learn some interesting facts about distance education and take away some great websites.