IMACC 35th ANNUAL CONFERENCE SCHEDULE – March 25-27, 2010

(Tentative)

THURSDAY March 25th

6:00-? Room check-in (Allerton main desk)
7:00 – 9:00 Meet and Greet
9:00 Mixer door prize awarded

FRIDAY March 26th

7:15 – 8:15 – Breakfast buffet
8:15 – 8:30 – Welcome, announcements
8:30 – 9:30 – Opening session speaker – Doug Shaw: "Activities Exploring the Collatz Conjecture – An Unsolved Problem in Fifth Grade Arithmetic"
9:40 – 10:40 – Concurrent sessions
- Kathy Almy: "Success by Design: a developmental math redesign that works"
- Randy Gallaher & Kevin Bodden: "Engaging Students with Guided On-Line Learning"
- Omar Adawi & Sunil Koswatta: "Birds of A Feather: Panel Discussion on Discrete Mathematics"
- Joe Sukta: "Projects for Assessment in Business Statistics"

10:40 – 11:00 – Coffee break, exhibits
11:00 – 12:00 – Concurrent sessions
- Bob Cappetta: "Something borrowed, something new: Calculus problems to promote understanding"
- Diane Koenig: "Podcasting: It's Easier Than You Think!"
- Arunas Dagys & Patricia Petkus: "Mastery Learning and My Math Lab in Intermediate Algebra"
- IIT Faculty: "A New Ph.D. Program in Collegiate Mathematics Education at IIT"
- Brian Mercer: "How Can I Incorporate Technology in My Classes?"

12:00 – 1:00 – Lunch buffet
1:00 – 2:15 – Park activities
2:15 – 3:15 – Concurrent sessions
- Doug Shaw: "What Else Can You Do with an Open-topped Box?"
- Michael Hardy: "Teaching with a Tablet PC"
- Brenda Alberico: "Conic Sections and Skis"
- Michael Sullivan: "Engage to Motivate"
- Brittany Walker: "All Math Software is not Created Equal: What's the Difference?"

3:15 – 3:45 – Coffee break, exhibits
3:45 – 4:45 – General session – IMACC History by Jim Trefzger & Friends
4:45 – 5:45 – Social hour/Committee Meetings
5:45 – 7:00 – Dinner and awards
7:00 – 8:00 – Evening program – Doug Shaw: "Extreme Mathematics Results"
8:10 – ? – IMACC Board of Directors meeting
8:00 – 9:00 – Evening activity – board games, card games, Wii games

SATURDAY March 27th

7:15 – 8:15 – Breakfast buffet
8:15 – 9:15 – IMACC Business Meeting
9:25 – 10:25 – General speaker – Ed Burger: "Crafting Creative Thinkers"
10:25 – 10:40 – Coffee break
10:40 – 11:40 – Concurrent Sessions
- Brian Durham: "What's Happening with ICCB"
- Jim Olsen & Allison McGann: "Catalan Numbers and Pascal's Triangle"
- Barb Becker & Pat Army: "Using Mathematical Modeling to Teach College Algebra"
- Connie McLean, Albert Stacy,& Laura Snook: "No More Excuses"

11:45 – 12:00 – Scholarship Raffle & Closing Remarks
12:00 – 1:00 Lunch buffet

Session Descriptions

Opening General Session – Friday March 26th – 8:30am

Doug Shaw, University of Northern Iowa

"Activities Exploring the Collatz Conjecture: An Unsolved Problem in Fifth Grade Arithmetic"

Do your students think mathematics is "dead"? If so, consider sharing the Collatz Conjecture (also known as the 3n+1 conjecture) with them as an example of an unsolved problem that demonstrates how mathematics is still growing and evolving. We present camera-ready group activities that should be appropriate for community college students.

First Breakout Sessions – Friday March 26th - 9:40am

Kathy Almy, Rock Valley College

"Success by Design: a developmental math redesign that works!"

Three years ago, Rock Valley College in Rockford, IL made a college-wide commitment to completely redesigning every component of their developmental math program. Session attendees will learn about the elements that have combined to make an extremely successful program.

Randy Gallaher and Kevin Bodden, Lewis & Clark Community College

"Engaging Students with Guided On-Line Learning"

To be effective learners, students must be engaged. When faced with an abundance of resources, developmental learners often do not know where to begin, particularly with on-line programs. But guided on-line learning through resources such as an eBook, video tutorials, animations, and practice problems can engage the student and lead to better comprehension and retention of concepts. Since significant learning takes place outside the classroom, it is vital that these resources be available to each student at the time and in the manner which they are most 'learning ready'. The presenters will share their use of electronic resources through the MyMathLab course management system and tell how this has helped to improve student learning in their algebra courses.

Omar Adawi, Parkland College
Sunil Koswatta, William Rainey Harper College

"Birds of A Feather: Panel Discussion on Discrete Mathematics"

The session will offer the opportunity to discuss the arrangement and number of topics in Discrete Mathematics at various community colleges in Illinois, the incorporation of technology, and some strategies for teaching this course.

Joe Sukta, Moraine Valley Community College

“Projects for Assessment in Business Statistics”

Fifteen projects, their solutions and WORD files are provided. WORD files can be modified before assigning. Instructions for the TI-83 calculator (list management, calculating probabilities and confidence intervals) are included. Instructions for MINITAB (graphs and hypothesis testing) are provided. Projects are used in my online and classroom Business Statistics course.

To preview, go to:
http://online.morainevalley.edu/websupported/jsukta/handouts/business_statistics.htm

Second Breakout Sessions – Friday March 26th - 11:00am

Bob Cappetta, College of DuPage

"Something borrowed, something new: Calculus problems to promote understanding"

I will discuss several of my favorite homework and test questions. I will show how they are related to my research on conceptual understanding.

Diane Koenig, Rock Valley College

“Podcasting: It’s Easier Than You Think!”

Podcasting is a growing phenomenon in many areas of education and there’s no reason it can’t be done with math, too. Diane will describe her experience creating podcasts for her developmental math classes and her upcoming expansion to college-level statistics.

Arunas Dagys & Patricia Petkus, St. Xavier University

“Mastery Learning and My Math Lab in Intermediate Algebra”

Mastery Learning and My Math Lab have been a dynamic mix that has improved the success rate in Intermediate Algebra significantly. We will discuss our approach, what we do, why we do it, what our students think about it and how they do in future math classes.

Faculty Member, Illinois Institute of Technology

“A New Ph.D. Program in Collegiate Mathematics Education at IIT”

Illinois Institute of Technology has a new PhD program in Collegiate Mathematics Education. This is a joint program between the Department of Applied Mathematics, and the Department of Math and Science Education, chaired by Norm Lederman.

This PhD CME program focuses on pedagogy for university level mathematics instruction. The program differs from the PhD in Applied Mathematics, which prepares students for a research career in applied mathematics, and also differs from the PhD in Mathematics Education, which is aimed more at pre-university education. This session will provide more about the details of the program.

Brian Mercer, Parkland College

"How Can I Incorporate Technology in My Classes?"

Thinking about trying to appropriately incorporate technology into your classes? Looking for a place to start? Come learn how several forms of technology have been successfully incorporated into a developmental algebra sequence.

Third Breakout Sessions – Friday March 26th - 2:15pm

Doug Shaw, University of Northern Iowa

"What Else Can You Do with an Open-topped Box?"

Starting with the classic Open Box optimization problem, we present extensions of this problem that can be used in high school
mathematics classes. Some extensions require calculus, and some don't. Surprises and beauty abound! We also challenge high
school teachers to use this process of problem analysis in their own practice as a way to enrich the content of their lessons and as a
means of individualized professional development.

Michael Hardy, Saint Xavier University

"Teaching with a Tablet PC"

The proposed session will entail three primary strands. The first will be an exploration of the capabilities of Tablet PCs. Interwoven with that exploration will be a discussion of applications of said utilities within the teaching and learning of mathematics. Finally, time will be devoted to highlighting students' reactions to the presenter's use of a Tablet PC as an instructional tool.

Brenda Alberico, College of DuPage

"Conic Sections and Skis"

Students create a picture using conics, and find the conic equations in rectangular, polar, and parametric forms. They find the equation for the hyperbolas and parabolas for a pair of skis, and then calculate the arc length of the ski.

Michael Sullivan, Joliet Junior College

“Engage to Motivate”

Are your students engaged in learning? Do your students communicate well? Do your students collaborate? Are your students motivated? Engagement, collaboration, communication, and motivation are skills we need to develop in our students. How can we develop these skills while teaching mathematics community college setting?

Brittany Walker (Hawkes Learning Systems)

“All Math Software is not Created Equal: What’s the Difference?”

The use of technology has become increasingly implemented in Mathematics courses, but what makes one software system different from another? Hawkes Learning Systems (HLS) is a unique program that is proven to be more effective in improving student performance. Discover how HLS’s differences make it the perfect solution for student success! All presentation attendees will be entered to win a GPS!

Friday Afternoon General Session – 3:45pm

Jim Trefzger, Parkland College (retired)

“35 Years of IMACC at Allerton”

This is the 35th anniversary of both the organization and the conference at Allerton. Jim & a few of the more seasoned veterans of IMACC will recount their memories of the conference over the years.

Friday Evening Entertainment – 7:00pm

Doug Shaw, University of Northern Iowa

“Extreme Mathematics Results”

What is the world's shortest mathematics paper? What's the largest number ever to appear in a mathematics paper? What's the most unintentionally hilarious result ever to appear in a mathematics paper? Doctor Shaw will answer these questions, and along the way participants will learn about Latin Squares, Ramsey Theory, and other interesting topics in Discrete Mathematics, all of which are accessible to undergraduate students.

Featured Speaker – Saturday March 27th – 9:25am

Edward B. Burger, Williams College

“Crafting Creative Thinkers”

What will our students remember long after they have forgotten the quadratic formula and how to solve for "x"? Here we celebrate the real prize in teaching: inspiring students to be imaginative and creative within mathematics & beyond. Our celebration will involve entertaining antics, new technologies, and methods that allow us to foster the joyful pleasures of creative thinking while still offering mathematical mindset that transcend the equations themselves.

Fourth Breakout Sessions – Saturday March 27th - 10:45am

Jim Olsen and Allison McGann, Western Illinois University

“Catalan Numbers and Pascal’s Triangle”

As the Pascal’s Triangle can be used to solve many counting and probability problems, the Catalan numbers (the sequence 1, 2, 5, 14, 42, …) can be used to solve a multitude of counting problems from the number of triangulations of a n-gon to tree-counting to the expected number of games in the World Series. We will show various ways of finding the sequence and how, not surprisingly, the Catalan numbers are found in Pascal’s Triangle.

Connie McLean, Albert Stacy and Laura Snook, Black Hawk College

“No More Excuses”

Advanced technology can be used for a variety of courses. Using a computer version of a smart board and tablet pc with interactive pen, teachers can capture work directly to distribute by e-mail, post online, or save to software applications such as Word, Excel, and PowerPoint

Barb Becker & Patricia D. Army, St. Xavier University

“Using Mathematical Modeling to Teach College Algebra”

For approximately ten years the presenters have been teaching college algebra at Saint Xavier University using a modeling approach. Graphing calculators are used extensively and allow students to analyze a wide variety of functions from various fields of study. Analysis of data and interpretation of results in the context of the problem along with the ability to write meaningful answers using correct mathematical symbolism and English sentences are expected results of the course. The presenters will share their experiences teaching the course and discuss various changes that have been made along the way including the recent addition of WebAssign software.