Featured Lunch Speaker

Jay Lehmann **College of San Mateo**

Don't Believe Everything You Hear

Are various rules of thumbs about dogs, lightning, and global warming true? Having intermediate algebra students curve fit compelling authentic situations naturally emphasizes key concepts such as parameters of functions, solving equations, model breakdown, the Rule of Four, and algebra of functions. The presenter will sing a math love song.

Friday Night Speaker

Matthew Haas **Corning Community College**

The Re-Funification of Math

According to Wikipedia (the source of all knowledge in the known universe), mathematics is the study of quantity, structure, space, and change. If you were to ask a typical high school or college student what they think of math, an answer of "that boring/stupid number stuff they make us do" may not be entirely uncommon a response. But looking and desiring to prolifically celebrate all that math is and comparing it to some negative mainstream math-phobic population, what can we do to reintroduce the epiphanies and infinite joys of math to the everyday hobbies and considerations of a cellphone-wielding, Xbox-owning, and job-working future of our Westernized culture? Like any good question or problem, there are always several approaches. Those NEMATYC 2010 attendees brave enough to attend the Friday night social will be subjected to some of the ideas and philosophies I've instantiated into my own relationships with my local populations of learning minds, and with the hope that unconventionality will not breed close-mindedness, enable the possibility and consideration of some alternative approaches in your own endeavors. Together, through our collective love of learning and the utilization of math, we can help make the world as we know it welcome math back into the public's heart, body, mind, and soul.

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<tr><th colspan="5">April 9th</th></tr>
<tr><td>2:30 – 4:30</td><td colspan="4">Registration, Refreshments in Cafeteria</td></tr>
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One-Credit Mathematics Review Offers Students an Alternative</td><td rowspan="2">(3) Room 242B</td><td>(4) Room 314
The Evolution of a Developmental Mathematics Program</td></tr>
<tr><td>4:30 – 5:15</td><td>(5) Room 215
Teaching Math Using Smartboard Technology</td><td>(6) Room 316
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Monty Hall Problems: Change our way of thinking

Service at a Distance: Exploring New Technologies for the Teaching and Learning of Mathematics from Afar

April 10th					
8 – 12	**Registration, Exhibits, and Continental Breakfast until 10 in Cafeteria**				
8:30 – 9	**Welcome in the Library Atrium**				
Room	**306**	**305**	**303**	**242B**	**301**
9 – 9:45	Developing Quantitative Literacy	(8) Active Learning in the Mathematics Classroom	(9) Integrating Scientific Computation Into An Undergraduate Mathematics Program	Creating Your Own Personal Learning Network	(11) New Features in MyMathLab, MathXL, and MyMathTest …..and now MyMathLab Plus
10 – 10:45	(7)	(12)	(13) MAC 'n MOD	(10)	(14) Cengage Learning Technology & Training
11 – 11:45	(15) Classroom Activities for Elementary Statistics	Success with ALEKS in the Developmental Classroom	(16) Are Short Answers Good Enough? Eliciting Better Math Practice Software	(17) Using the Tablet PC in Developmental Math Through Calculus Courses	(18) The “New Life” Project Part 1
11: 45 – 12:15	**Dedicated Exhibit Time**				
12:15 – 2	**Lunch with Featured Speaker Jay Lehmann Don't Believe Everything You Hear**				
2 – 2:45	(19) Making Connections: The Evolution of the 1946-1950 Boston Red Sox and Boston Braves, from a Statistical Perspective	(20) The First American Math Book	(21) All Math Software is not Created Equal: What's the Difference?	The Algebraic Models in Our World: A General Education Algebra Course	(23) The “New Life” Project Part 2
3 – 3:45	(24) Making Time to Teach Civic Issues in Mathematics Courses: Finances 101	(25) Reasons U'D Love UDL	(26) Two Free (or Nearly Free) Statistics Textbooks	(22)	(27) Calculus Reform at the Community College Level
4 – 5	**Business Meeting, Elections, and Door Prizes in the Library Atrium**				

3:30 – 5:15 in Room 309

1 Monty Hall Problems: Change our way of thinking

Dr Eiki Satake Emerson College
Dr. Philip.P.Amato Emerson College

Understanding the topic of probability requires not only mathematics but also some careful logical thoughts and plausible reasoning. The authors will greatly emphasize on so-called "Intuitive" way of teaching probability through a set of several Monty Hall problems such as "Let's make a deal","Prisonner'dilemma", and "Prosecutor's fallacy". The main goals of this presentation are (1) to help mathematics educators develop probabilistic thinking that leads to a better understanding of the topic, and (2) to create a more challenging and intellectually stimulated classroom environment for enhanced student learning.

3:30 – 4:15 in Room 316

2 One-Credit Mathematics Review Offers Students an Alternative

Marsha Pease North Shore Community College

North Shore Community College has implemented a one-credit web-based mathematics review course for all levels of developmental and some college level mathematics content. Students work on their own during the week and meet once a week with their math professor. Learn about what works and what does not work with this model designed to provide students with alternative paths to reviewing their math skills.

3:30 – 5:15 in room 242B

3 Service at a Distance: Exploring New Technologies for the Teaching and Learning of Mathematics from Afar

Norma Bisulca University of Maine
DeAnna McAleer University of Maine
Linda Rottmann University of Maine

The presenters will demonstrate how they have successfully integrated the use of PC tablets, Adobe Acrobat Connect Pro, Panopto Recorder and other technologies into their distant classroom presentations and tutoring sessions. Attendees will have an opportunity to participate in a mock tutoring session and experience the value-added benefits of these tools for the teaching and learning of mathematics at a distance. The pros and cons of the various tools will be discussed.

3:30 – 4:15 in Room 314

4 The Evolution of a Developmental Mathematics Program

Dr Kim Ward Eastern Connecticut State University

Students must take responsibility for their success in mathematics. Learn how Eastern Connecticut State University is providing students with the tools to do so, through strengthening their developmental mathematics program. These enhancements include changes in pedagogy, technology, student support and resources, and assessment.

4:30 – 5:15 in Room 215

5 Teaching Math Using Smartboard Technology

Nancy Zuber Berkshire CC

There are many advantages to using the Smartboard in the math classroom, but the most important advantage of all is its ability to capture classnotes. Not having to scramble to take down everything the instructor says, students are able to pay better attention in class and, at the end of the day, have a complete and accurate set of class notes that can be accessed via Blackboard or some other LMS. Other advantages to using Smartboard include graphing capabilities, the ability to use color and graphics, and time-saving techniques for instructors.

4:30 – 5:15 in Room 316

6 The Controversial Nature of Elementary Statistics

Joseph Manthey Saint Joseph College

Many students believe that elementary statistics is boring. Elementary statistics textbooks frequently reinforce this idea by presenting a very limited window into the history of statistics. In fact, statistics has been controversial since its inception. The battle between Ronald Fisher and Jerzey Newman/Egon Pearon over the nature of significance testing still resonates today and has implications for elementary statistics students. In this session, we will take a closer look at the controversial nature of several topics in elementary statistics and I will provide some suggestions for presenting them to students.

9 – 10:45 in Room 306

7 Developing Quantitative Literacy

Brian Beaudrie Plymouth State University
Emily Ricard Plymouth State University
Barbara Boschmans Plymouth State University

After introducing the concept and components of quantitative literacy, and discussing its importance in today's world, this session will present several activities that will help teachers in a variety of mathematics courses develop quantitative literacy in their students.

9 – 9:45 in Room 305

8 Active Learning in the Mathematics Classroom

Dr. David C Mello Johnson & Wales University

A discussion of how active learning techniques can be used in the typical mathematics classroom to help improve student learning, and a discussion of the ramifications of these techniques.

9 – 9:45 in Room 303

9 Integrating Scientific Computation Into An Undergraduate Mathematics Program

Adam Hausknecht U Mass Dartmouth

To improve our undergraduate mathematics program, I developed a project-based 200-level scientific computation course for our majors. This course makes use of free/open-source software rather than commerical packages so that students can install the softarare on their own computers and work on projects outside of the classroom. Several department members and I have also integrated open-source mathematics software packages inoto our calculus, differential equations, and abstract algebra courses. I will discuss our new scientific computation course and present examples of using TEMATH, Octave, Sage, and Visual Python in all of these courses.

9 – 10:45 in Room 242B

10 Creating Your Own Personal Learning Network

Mary Sullivan Massasoit CC

Staying up-to-date and connected has never been easier thanks to Web 2.0 tools! A personal learning network allows you to network with other mathematics educators, locate resources for your classes, learn about new technology, and keep up with the latest in education-related news. After I review some of these most popular tools (blogs, microblogs, wikis, nings, and social bookmarking), participants will create their own twitter accounts, locate people to follow, and start tweeting!

9 – 9:45 in Room 301

11 New Features in MyMathLab, MathXL, and MyMathTest …..and now MyMathLab Plus

Kevin O'Brien Senior Technology Specialist Pearson Education

The Pearson technology Specialist will cover the new features in MyMathLab, MathXL, and MyMathTest with examples of various usage scenarios, face-to-face, online, self-paced, test prep, etc. He will also show MyMathLab Plus a new variation of MyMathLab that allows for batch loading, grace periods, school bulk purchasing, and direct communication with school Student Information Systems such as Banner.

10 – 11:45 in Room 305

12 Success with ALEKS in the Developmental Classroom

Maria DeLucia Middlesex County College

Driven by a tough economy and easy access community colleges enrollments are surging with students looking to improve their skills and further their education to prepare them for the 21st century. With increased enrollments come a greater number of underprepared students' needing developmental courses. How then do community colleges increase student success and retention while ensuring that they possess the skills for success in credit bearing courses? The responsibility for student success resides with the departments, to help students who lack the skills needed to succeed. Therefore, we are committed to help students succeed in all courses so that they may transfer or to become successful members of the workforce. This poster will outline how Middlesex County College has addressed placement issues to ensure proper placement, development of new courses to reduce the time spent in developmental courses and the integration of ALEKS into our courses to the creation of a learning center to increase student success in both non credit and credit math classes.

10 – 10:45 in Room 303

13 MAC 'n MOD

Carol Hay Middlesex CC
Linda Dart-Kathios Middlesex CC
Beth Fraser Middlesex CC
Carol Henry Middlesex CC
Dora Ottariano Middlesex CC
Michael Williamson Middlesex CC

Come see the exciting things that are happening at Middlesex Community College as a result of an NSF grant to promote a Math Across the Curriculum (MAC) initiative. Examples of our interdisciplinary projects will be presented as well as information about our widely successful MOD (Math on Demand) Squad

10 – 10:45 in Room 301

14 Cengage Learning Technology & Training

Jerry O'Malley Digital Solutions Manager, Cengage Learning

Experience the complete "life cycle" of adopting a Cengage Learning text and online homework solution. Starting with Enhanced WebAssign we will highlight the program's new features and then demonstrate how we tailor the content directly to your syllabus and explain the dedicated training you and you're colleagues will receive. Our presentation will be divided into three segments: 1) What is new in Enhanced WebAssign, 2) Customizing the homework to match your syllabus, 3) Explain what types of training is available to faculty and students. We'll begin by showing new features of EWA including: the Personalized Study Plan, the complete multimedia eBook, the new Master It tutorials and lastly the conditional release of assignments. A member of our Custom Digital team will speak about our ability to work with faculty and their syllabus to create a turn-key course unique for their college. Utilizing this service will take the burden off of the faculty to create the course and delivers a course ready to go on day one of the semester. A member of our Training division will speak about the many training options we have to service adopters before and after the semester has begun. Whether it is on-site faculty training, pre-recorded or live WebEx trainings or First Day of Class training for your students, Cengage Learning will ensure you and your students have the information they need to fully utilize the tools at your disposal. This presentation will be a general assembly with the presenters in front addressing the participants. There will be no group activities, etc.

11 – 11:45 in Room 306

15 Classroom Activities for Elementary Statistics

Gary R. Tataronis Massachusetts College of Pharmacy & Health Sciences

The presenter will share various individual and group activities to enhance student learning in an elementary statistics course. Each exercise is designed to stimulate thinking and motivate students to actively learn statistical topics including levels of measurment, descriptive statistics, regression, probability, confidence intervals, and p-values. Attendees will participate in one of these activities and receive copies of the assortment for use in their own classes

11 – 11:45 in Room 303

16 Are Short Answers Good Enough? Eliciting Better Math Practice Software

John C Miller The City College of CUNY-Emeritus

Over 25 years, the prevalent solution formats used in math practice software have evolved from multiple-choice and fill-in-the-blanks to today's short final answer problems with stored solutions. Yet every responsible instructor, when grading problems, insists on seeing complete step-by-step solutions to all multiple-step problems, in order to provide optimal feedback targeted to each student's specific errors.

The proposed presentation is framed as an historical summary. It includes four actual problems from widely used math practice programs, spanning the last 20 years, and illustrating the stagnation that appears to have been reached, particularly in solution formats. Then three additional problems will be shown, taken from three little-known programs, each self-published by individual faculty, that illustrate how the leap to step-by-step problem solutions with intelligent help at each step could and should be occurring.

The issue is that major publishers don't seem to be getting the message. A plan of action will be proposed.
Note: one of the aforementioned "little-known programs" will be xyAlgebra, written by the proposed presenter. Please note, however, that xyAlgebra is a non-commercial program. It can be downloaded at www.xyalgebra.org completely free of charge, with no strings attached, and copied and installed as required.

11 – 11:45 in Room 242B

17 Using the Tablet PC in Developmental Math Through Calculus Courses

Jennifer Tyne University of Maine
Linda Rottmann University of Maine
Todd Zoroya University of Maine

In this basic overview of the Tablet PC, we will demonstrate how we use the Tablet PC in math classes (developmental math through Calculus). We will focus on using the Tablet with Power Point, Windows Journal, Easiteach, and Camtasia and CamStudio video/audio screen capture software. We will discuss student feedback, benefits to students with disabilities, and the use of the Tablet for contingency planning in the case of a school closure.

11 – 11:45 in Room 301

18 The “New Life” Project Part 1

Robert Cantin Mass Bay CC
Philip Mahler Middlesex CC

1—The AMATYC Developmental Mathematics Committee is working on the “New Life” project, which is a revolutionary path for developmental math curriculum. It is based on the hypothesis that a developmental program must be done in one year to have any significant improvement in success rates. It recommends radical pruning and change in the curriculum for non-STEM majors. It is not just new life for the curriculum, but for the faculty that are tired of the discouraging state of developmental math education in our colleges. We will present the work done to date and leave some time for the discussion that this proposal will inevitably generate.

2 – 2:45 in Room 306

19 Making Connections: The Evolution of the 1946-1950 Boston Red Sox and Boston Braves, from a Statistical Perspective

Steve Krevisky Middlesex CC

Just after World War 2, when returning players such as Ted Williams and Joe Dimaggio graced the playing fields, baseball had a rejuvenation. There were close pennant races, and both Boston teams were in the world series, but not at the same time. In 1948, had the Red Sox won the playoff game with the Indians, there could have been a Red Sox-Braves series! Using various forms of math and statistical analysis, we look at the performances of both teams, with emphasis on stars such as Ted Williams, Dom Dimaggio, Vern Stephens, Warren Spahn, and so forth. We thus shed light on what was going on during this exciting time in baseball.

2 – 2:45 in Room 305

20 The First American Math Book

Andrew Perry Springfield College

If we define “American” as “from the Americas,” then The Sumario Compendioso published in Mexico in 1556 by one Juan Diez Freyle, could be said to be the first American math book. What if we restrict ourselves to the region now known as the United States of American? Then Isaac Greenwood's 1729 Arithmetick Vulgar and Decimal might take the cake. We'll investigate these and other related questions, most of them quite debatable.

2 – 2:45 in Room 303

21 All Math Software is not Created Equal: What's the Difference?

Jennifer Moore Hawkes Learning Systems

The need for and use of technology has become increasingly prevalent in Mathematics courses. But with all the software options available, it can be difficult to determine the differences from one system to another. Hawkes Learning Systems (HLS) is a unique program that stands out from the rest. Students learn more effectively and efficiently through interactive tutorials, unlimited practice, mastery-based homework assignments, and error-specific feedback provided by artificial intelligence. From having the lowest cost and lifetime access to not requiring the internet to do homework and an easy-to-use interface, it is the most student-friendly product available. Not only is it different from other software systems, it has also been proven through controlled studies to be more effective in helping students learn and retain mathematics skills. This presentation will show the many benefits of Hawkes Learning Systems for both students and instructors and will highlight case studies proving that it truly works in helping students excel in Math. Curious about these differences that HLS has to offer? Come and discover how HLS is the perfect solution for student success!

2 – 3:45 in Room 242B

22 The Algebraic Models in Our World: A General Education Algebra Course

Jennifer Tyne University of Maine
Robert Franzosa University of Maine

In this overview of the University of Maine's general education math course called “Algebraic Models in Our World,” we will discuss the motivation for developing an alternative to College Algebra, discuss the course structure and content, present materials we have created, and actively engage the participants in the student explorations. This successful course has given non-math and non-science students a new perspective on mathematics that many find refreshing. We will provide results from an attitude survey showing student reaction to the course.

2 – 2:45 in Room 301

23 The “New Life” Project Part 2

Robert Cantin Mass Bay CC

Philip Mahler Middlesex CC

A follow-up workshop to The “New Life” Project Part 1 – Overview. A chance for more discussion and hands-on, collaborative work on a new developmental math curriculum as described in Part 1.

3 – 3:45 in Room 306

24 Making Time to Teach Civic Issues in Mathematics Courses: Finances 101

Magdalena Luca Massachusetts College of Pharmacy and Health Sciences

My presentation will discuss results from a research project I have developed with the intent to introduce a civic and practical issue in all my mathematics courses: teaching finances to undergraduate students enrolled in pharmacy and health care programs. The research project had two goals: first, to teach students basic financial concepts because, as college graduates, they should be able to understand, analyze and apply their knowledge to the many financial problems that arise in life, especially in the light of the present world financial crisis. Second, the project investigates assessment of student learning when civic issues are integrated in mathematics courses. To this end, incorporating financial literacy concepts into Calculus I and Calculus II courses proves to be very easy and valuable. All students immensely benefit from reading and learning about everyday financial issues.

3 – 3:45 in Room 305

25 Reasons U'D Love UDL

Philomena D'Alessandro Quinsigamond Community College

This workshop will identify ways to incorporate Universal Design for Learning (UDL)* techniques into a developmental math course. It will also explore activities that inspire students to make mathematical connections. *”Universal Design for Learning,” and “UDL” are registered trademarks of the Center for Applied Special Technology, D/B/A CAST, Inc.

3 – 3:45 in Room 303

26 Two Free (or Nearly Free) Statistics Textbooks

Mary Moynihan Cape Cod Community College

Mary Sullivan Massasoit CC

We've been using two different free open statistics textbooks. In this session, we’ll show you highlights from each text including interactive material, share our classroom experiences and student reactions, and discuss the pros and cons of using these texts in place of traditional texts. Mary Sullivan is using "Collaborative Statistics," from Rice University's Connexions project. Mary Moynihan is using the online Statistics text material from Carnegie-Mellon’s Open Learning Initiative (OLI). The OLI material is currently being customized for the community college environment and we'll discuss the opportunity to class test material for Fall 2010 if you're interested.

3 – 3:45 in Room 301

27 Calculus Reform at the Community College Level

Jozef Sliwkowski Mass Bay CC

Sumithira Anand Mass Bay CC

Starting in 1992, the NSF funded a number of initiatives with the goal of improving both the delivery and retention of the fundamental concepts of Calculus. Various institutions participated: University of Illinois, Ohio State, Duke, Harvard and developed a number of approaches. In the Spring, 2009, the STEM division of MassBay instituted an initiative to adopt the "best appropriate practices" that resulted from these efforts and to incorporate these "best practices" into the Calculus 1, 2 and 3 and Differential Equations and Linear Algebra curriculum. This paper will present (with a focus on Calculus 1): The driving forces behind this initiative and the desired outcomes, Summary of "best practices" that were adopted and some that were not, The role of Calculus Labs including a detailed Lab Report, A comparison of Traditional vs Calculus Reform, Measures of Student Improvement

The Computer Based Tools that were integrated into the courseware will be presentedalong with how they were used to expand students' self-learning skills.Examples of student submissions will be reviewed. Based on the preliminary findings, recommendations will be made to further improve their usage in supporting the desired outcome of improved calculus learning for both MassBay and other institutions that would consider adopting Calculus Reform.