

NEMATYC NEWS

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Vol 18, No 2

Newsletter of the New England Mathematical Association of Two-Year Colleges

Spring, 2010

NEMATYC 2010 36th Annual Meeting



CONNECTIONS

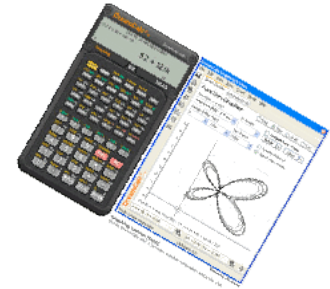


Wellesley Hills, MA
Friday and Saturday
April 9-10, 2010

Meredith Watts, Chair

*Friday evening: Hors d'oeuvres and Speaker,
Saturday Luncheon Speaker Pearson author Jay Lehmann
Friday and Saturday Presentations by you and your colleagues
Publishers Exhibits*

Program and Details Inside



**Register for the Conference,
Pay your fees, Book your hotel
room – Online! See page 9**

Conference Chair Message

Greetings from your conference chair!

Do you believe in magic? This is the 36th NEMATYC conference, and it begins on 4/9. Now $4 \cdot 9 = 36$, and they are all perfect squares! What a Connection!

The preliminary program for the April 2010 conference can be found in this issue. We have a wide variety of topics and a wide variety of ways to make connections: connecting to our students at a distance, connecting through social networking, and connecting statistics to the 1946 -1950 Boston Red Sox and Boston Braves (plus so much more)!

Friday evening at the Natick Crowne Plaza we are planning a relaxing gathering where you can connect with your colleagues. We'll have an array of hors d'oeuvres and an informal talk at 7pm from an interesting speaker. As of this publication we have not finalized these plans enough to put out more information.

Saturday we have five blocks of sessions (up from the usual four)! Our featured speaker is author

Jay Lehmann. Jay has taught for the past 20 years at the College of San Mateo, where he received the “shiny apple award” for excellence in teaching. Over the past thirteen years he has presented talks on curve fitting and directed-discovery learning at over 50 conferences including AMATYC and ICTCM.



Meredith Watts
Conference Chair

He has participated in grant projects on retooling an arithmetic course and on learning how to assess the effectiveness of teaching. He is currently on the board for California Mathematics Community College Consortium (CMC3). He plays in a rock band called the Procrastinistas (prepare to be dazzled by his math love song!) He has authored several algebra textbooks published by Pearson.

We hope you can join us April 9th and 10th. You will make CONNECTIONS that will hopefully stay with you and benefit you for years!

Meredith Watts, Conference Chair



They gave you NEMATYC 2009. Alec Ingraham, Pamela Cohen, David Cox, Carol Henry, Kathy Willis



Las Vegas, site of AMATYC 2009. Some of the NEMATYC attendees are shown on page 7.

NEMATYC is keeping up with the times. Thanks to Webmaster Rick Butterworth **we can now register for the conference and pay our fees in about 2 minutes!** And thanks to Conference Chair Meredith Watts, we can also **reserve our room in about 2 minutes.**

NEMATYC 1010 - CONNECTIONS - Register Right Now! Reserve Your Room Right Now!

Register and Pay Fees at

<http://NEMATYC.org/Conferences/Conf2010/NEMATYCOnline/RegForm.html>

Book your room at

<http://resweb.passkey.com/go/NEMATYC>



NEMATYC EXECUTIVE COMMITTEE Spring 2009 - Spring 2010

President 08-10 Carol Henry Middlesex CC henryc@middlesex.mass.edu 781.280.3982	Past President 08-10 Andrew Perry Springfield College perryand@yahoo.com 413.748.3193	Vice President 09-10 Judy King NHTI turkcaj@comcast.net 603.224.4303	Secretary 08-10 Dora Ottariano Middlesex CC ottarianod@middlesex.mass.edu 978.656.3192
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At-Large Member 09-11 Mary Kehoe Moynihan Cape Cod CC MMoyniha@capecod.edu 508.362.2131 x 4471	2010 Conference Chair Meredith Watts MassBay CC MWatts.math@gmail.com 508.270.4264	2009 Past Confrenc Co-Chair David Cox Southern New Hampshire U D.Cox@snhu.edu 603.668.2211 x 2223	2009 Past Confrenc Co-Chair Alec Ingraham Southern New Hampshire U A.Ingraham@snhu.edu 603-668-2211 x 2239
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NOMINATING COMMITTEE REPORT

The NEMATYC Nominating Committee is pleased to present the following slate of officers for election at the annual business meeting in April.

Andrew Perry, Past President, Chair

PRESIDENT

Two Year Term

Mary Kehoe Moynihan Mary has taught mathematics and computer science at Cape Cod CC since 1979. She hosted the 2008 AMATYC Statistics Summer Institute "GAISEing Beyond the Crossroads" and hosted the 2009 AMATYC Beyond Crossroads workshop on Cape Cod. Mary has presented at AMATYC and NEMATYC conferences on transferring mathematics courses and reform statistics.

VICE-PRESIDENT

One Year Term

Meredith Watts Meredith received both her M.A. and B.A. In Mathematics from the State University of New York at Potsdam. She has previously taught mathematics as a TA at UMass Amherst and as an adjunct professor at Corning Community College, Quinsigamond Community College and at Bay Path College. Since the fall of 2006, she has been a full-time Math Instructor at MassBay Community College.

SECRETARY

Two Year Term

Marsha Pease Marsha is in her fourth year as a member of the mathematics faculty at North Shore Community College. She earned a B.S. in Mathematics from Bates College, an M.S. in Computer Science from Boston University, and an Ed.D. in Mathematics Education from UMass Lowell. She was selected as an AMATYC ACCESS fellow in 2007. She has presented at NEMATYC and national conferences on topics related to engaging students in learning mathematics.

TREASURER

Three Year Term

David Cox David has taught mathematics at Southern New Hampshire University for 20 years. He has co-chaired two NEMATYC conferences, and has been a presenter as well.

MEMBER-AT-LARGE (two to be elected)

Two Year Term

Robert Cantin Bob is a Math Learning Specialist and adjunct math Professor at MassBay Community College. Prior to that, after a career in industry as a computer developer and executive, he taught and tutored math at Middlesex CC and Fisher College. Very active at the national level discussions involving developmental math programs and using technology, he has attended that last several annual AMATYC meetings and is a member of the Placement and Assessment and Developmental Math committees. He has presented twice at recent NEMATYC meetings. He has designed and implemented several math education programs at MassBay CC.

Judy King Judy previously served as NEMATYC at large member and as Vice President for the last two years. She had a self-described "relatively late entry into mathematics," and has taught middle school and at Hesser and Granite State colleges, as well as the New Hampshire Technological Institute since 1998. She has been a NEMATYC member, frequent AMATYC presenter, and presenter at ICTM3 in Istanbul, Turkey, the 3rd International Conference on Teaching Mathematics at the undergraduate level, held during the summer of 2006.

MEMBER-AT-LARGE (one to be elected, replacement)

One Year Term

Dora Ottariano Dora is a Professor of Mathematics at Middlesex Community College. She began teaching at Middlesex Community College in 1985. She has been a member of NEMATYC and AMATYC for many years, has been the secretary of NEMATYC for the last four years, and has been a presenter at both the NEMATYC and AMATYC annual conferences.

Nominations will also be accepted and welcomed from the floor prior to the election.

A teaching tip from **Judy King**, NEMATYC VP
- a reminder she gives to her students who are
struggling with fractions.

X, ÷ R EZ
+, - need LCD

From the President

Greetings!

It has become quite popular to send out advance notification of upcoming special events. Well, NEMATYC would like to announce a very important upcoming event and we hope that you will Save the Date – April 9 – 10, 2010 - for this very special event – the NEMATYC Spring Conference. This year's conference - NEMATYC 2010 Connections - will take place at MassBay Community College on the Wellesley Hills campus. At the conference you will have the opportunity to connect with your colleagues, connect with the research and work that is taking place in both our local and nationwide Community Colleges, and get suggestions for how you can better connect with your students. Please encourage all of your math department members to come join us!

At the annual AMATYC Conference that took place in Las Vegas this past November, a major topic of discussion centered on how we can improve student success and student retention in our developmental classes.

This is a nationwide problem and numerous initiatives have been suggested and tried. There has been some improvement noted, but not enough. So, now may be the time to make more radical changes to how we present developmental mathematics courses. Those of us who were lucky enough to be able to attend the conference in Las Vegas had the opportunity to attend the New Life for Developmental Mathematics Symposium as well as numerous workshops and sessions from which we were able to garner information. There seems to be agreement that the more developmental courses that a student needs to take prior to reaching a college level course, the less likely (at least for some students) that student is to ever complete the math requirement. Somehow, we need to reduce the number of semesters spent at the developmental level, and we need to give serious consideration to the content of these courses. Maybe shortening the path will allow more students to avoid terminal discouragement. If you would like to see examples of some of these sessions, check out the AMATYC 2009 Conference Proceedings web page:

<http://www.amatyc.org/Events/conferences/2009LV/index.html>

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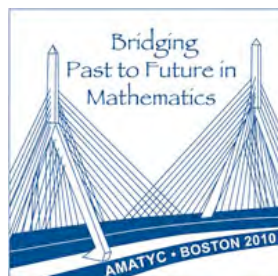


JANE TANNER AMATYC NORTHEAST REGION VICE PRESIDENT

NEMATYC Colleagues:

It is hard to believe that we are into a new decade and that I have taught in 5 different ones. I guess that just makes me old!

It was great seeing so many of you in Las Vegas at the 2009 AMATYC Conference. I hope that everyone was able to network with their friends, attend some great sessions (including the Developmental Math Symposium), and spend some time figuring out the probabilities of the different Vegas games. I know you will find it hard to believe that I didn't even risk \$1 of my hard earned money – I was kept too busy running around to have time to think about the slot machines and table games.



But, now my thoughts go to Boston and I know that you all are planning a fantastic conference in 2010. I did attend the 1993 Boston Conference – it was my second AMATYC conference. I was really overwhelmed with the hospitality and I know that 17 years later the same thing will be evident as we welcome both our veteran members as well as the first-timers. Jack Keating and his Local Events Committee have been working hard to come up with a conference that will have something for everyone. If you have never attended an AMATYC Conference, now is the time to see what one is all about! Save the dates of November 11-14! And, I am sure that Jack can use your help (contact him at JKKeating@massasoit.mass.edu).

Once you attend the Boston Conference, I am sure that you are going to want to become more involved in AMATYC. There are a number of positions that are available within the organization. Key conference positions are available, including Assistant Conference Coordinator, Presider and Exhibitor chairs. Also, the Project ACCESS Coordinator position is being advertised.

More information about the responsibilities and how to apply for these positions are available at

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There were quite a few people from NEMATYC who attended; we would be happy to share with you what we learned!

The 2010 AMATYC Annual Conference is going to be held in Boston and we hope to make it the best conference ever! Don't miss out on this event.

NEMATYC is an active organization that is populated by dedicated mathematics educators. We would like to encourage even more people to join and to participate. If you know of someone in your department who is not yet a member, please invite him/her to join us at the April Conference. Spread the word to some of the newer teachers in the region who might not yet be familiar with NEMATYC.

When I was asked years ago if I would be interested in joining the NEMATYC Executive Committee as a Member-at-Large, I was, at first, hesitant since I was concerned about the time and work commitment. Well, I have since held other positions and the time has flown by very quickly. I find it hard to believe that my two-year term as President of this organization is coming to a close. I have enjoyed talking with and learning from mathematics educators from all corners of the New England region. It has been my honor to represent our NEMATYC organization and to work with all of the dedicated people who have served on the Executive Board. Thank you all for your support, hard work, and all that you have done to help keep NEMATYC operating so well.

I would like to say a special thank you to Judy Carter who for many years now, has been NEMATYC's Newsletter Production Editor. Judy has decided to step down from this position, so this is her last newsletter. Thank you for your dedicated effort and your sustained contribution to NEMATYC.

I am pleased to announce that Anne O'Shea, one of our AMATYC Project Access Fellows, who teaches at North Shore Community College, has been appointed Judy's successor as our NEMATYC Newsletter Publishing Editor. I am confident that with Judy Carter as her mentor, there will be a smooth transition as Anne assumes this role.

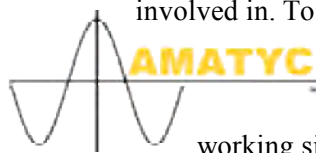
Carol Henry

Visit the NEMATYC website
<http://www.nematyc.org>

Webmaster: Rick Butterworth, Massasoit CC
Register for the conference and hotel online!

www.amatyc.org and in the current issue (January 2010) of *The AMATYC News*.

There are many things that AMATYC is getting involved in. To prove that we are keeping up with the times, there will be an AMATYC social networking site soon. The Innovative Teaching and Learning Committee already maintains a very active listserv where I personally get great ideas ready to implement into my classes. If you would like to get involved in this site, go to <http://groups.google.com/group/amatyc-itlc> (as of the time I am writing this there are 112 interested members!).



The Developmental Mathematics Symposium held at the Las Vegas Conference was very well attended. This symposium introduced the concept of bringing "New Life to Developmental Mathematics". From current issue of *The AMATYC News*, this project's primary goal is to "greatly improve the success rate of students in these programs through complete curriculum revision." A lot of information is available on this project at sm-live.wikispaces.com/ website. All the documents that were available at the symposium are posted there as well. Another site, dm-new-life.wikispaces.com/, gives a look at the original online community that started this process. The key difference is that anyone can join the dm-live wiki but can only view the dm-new-life one. I am sure that there will be more to come in this area. Right now, AMATYC is also involved with the Dana Center of the University of Texas and the Carnegie Foundation to "build effective, high-quality pathways to and through college mathematics." This includes looking at courses in developmental mathematics and statistics.

As always, my job is to represent you in AMATYC. If you have any questions or concerns, please contact me at tannerj@sunyocc.edu. I appreciate your support in my recent reelection to the position of your Northeast Vice President. Unfortunately, I am not going to be able to attend NEMATYC's meeting in April as it is at the same time as AMATYC's spring board meeting. But, I am looking forward to seeing you all in Boston in November! You will be able to recognize me – I will be the one with the tricorn on!



NEMATYC STUDENT MATH LEAGUE RECOGNITION AWARD PROGRAM

The purpose of the NEMATYC Student Math League Recognition Award Program is to foster extracurricular mathematics learning opportunities for students through participation in the AMATYC Student Mathematics League (SML). Annually, the top-placing student in the AMATYC SML Competition in each participating school in NEMATYC's service area will receive a \$100 Recognition Award. (The service area consists of those New England States that are not represented by their own AMATYC affiliate.) In order to receive the award, the student must have competed in both Rounds 1 and 2 of the 2 competition.

NEMATYC encourages you to consider joining the AMATYC SML and participating in this NEMATYC program. Your involvement can be as simple as advertising and conducting a one-hour testing session each semester. It can include pre-test study sessions, or even a campus mathematics club. It may be noted that AMATYC is a sponsor of Mu Alpha Theta, a national mathematics honor society primarily for high school students but which supports two-year college chapters as well. Information on both the SML and Mu Alpha Theta is at the AMATYC web site, www.AMATYC.org.

NEMATYC Student Math League Recognition Award Program 2009-2010

By Lois Martin, NEMATYC SML Coordinator

We have two new NEMATYC area teams participating in AMATYC's Student Mathematics League competition this year, and they are both off to a great start. Congratulations to New Hampshire Institute of Technology (NHIT) and Greenfield Community College – WELCOME TO THE COMPETITION!

Northeast Region First Round results are below. The spring test is conducted in February and early March.

Individual Standings

3	Nicholas Fegley	M	NHIT	NH
4	Brian Cowles	M	Springfield Tech.	MA
6	Yulia Goltsova	F	Southern Maine	ME
8 (tie)	Kurt Newcomb	M	Greenfield	MA
8 (tie)	Zachary Brians	M	Greenfield	MA
11	Richard Chapman	M	Cape Cod	MA
13	Giang Nguyen	F	North Shore	MA

Team Standings

4	NHIT	NH
6	Massasoit	MA
6 (tie)	Southern Maine	ME
8	Springfield Tech.	MA
10	Greenfield	MA
11	North Shore	MA
12	Middlesex	MA
13	Bristol	MA
14	Cape Cod	MA
15	Holyoke	MA
17	Mount Wachusett	MA

The First Math Wars

We all know about the Fibonacci sequence, which first appeared in the book *Liber abbaci* by Leonardo of Pisa in 1202 (Fibonacci). Less well known is that this book is often credited with popularizing Hindu-Arabic numerals, including zero, in Europe (1). Leonardo lived for a time in Muslim North Africa and probably learned them there. The book begins with this:

These are the nine figures of the Indians: 9 8 7 6 5 4 3 2 1. With these nine figures, and with the sign 0 which in Arabic is called zephirum, any number can be written, as will be demonstrated. The first seven chapters illustrate how to compute with these figures.

The algorithms for these numerals are difficult to learn (ask our students!), and in 1299 the city of Florence issued an ordinance forbidding merchants from using Arabic numerals in bookkeeping (2) because the customer would have a hard time verifying the results. There was also some mistrust of the new digit zero, which of course does not exist in the Roman numeral system. The counting board was better understood. Acceptance took centuries.

The figure shown is from the book *Margarita Philosophica* of Gregor Reisch, 1508. This woodcut shows a contest between the old and new arithmetic, symbolized by Boethius (left) and Pythagoras (right) which symbolizes the controversy. The modern method permitted "easy" calculation by hand, as shown on the left. Users of Roman numerals calculated with a counting board, much like the abacus, then recorded the results in Roman numerals. Boethius, a Roman, (circa 475–524) wrote a book on arithmetic, *De Institutione Arithmetica* which was in print for a thousand years.



(1) *Unknown Quantity* by John Derbyshire, 2006

(2) *The Hindu-Arabic Numerals*, Smith & Karpinski, 1911, from the Project Gutenberg Ebook

Some of the NEMATYC Members at AMATYC 2009 - Las Vegas



Steve Proietti, Northern Essex, Bonnie Wicklund, Mt Wachusett, Maureen Woolhouse, Quinsigamond, Roberta Kieronski, University of NH, Manchester



All from Middlesex (MA)! Phil Mahler, Carol Henry, Linda Dart-Kathios, Mike Williamson, Dora Ottariano, Marie Caruso, Carol Hay



Ken Takvorian, Mt Wachusett, Cliff Martin, Lois Martin, Massasoit, Anne O'Shea, North Shore, Dave Henry, Bristol, Marianne Rosato, Massasoit



Bob Cantin, MassBay, Judy King, New Hampshire Technological Institute, Meredith Watts, MassBay



Jack Keating, Massasoit, Steve Krevisky, Middlesex (CT), Judy King, NHTI



Meredith Watts, MassBay, David Ellenbogen, author, Community College of Vermont

NEWS FROM THE CAMPUSES

Bristol Community College

Rhode Island resident **J. Kirk Higham** crossed the border to join the staff at Bristol Community College. **David Henry** is participating in Cohort 6 of AMATYC's Project ACCESS. Bristol has an opening for an Instructor of Developmental Mathematics. The deadline for submission is Feb. 27. Please visit BristolCC.edu for details.

Al Roy, one of the founding faculty at Bristol CC (1966), retired from full-time teaching in June of 2009. Since then, two full-time mathematics faculty have joined the department, **Dave Henry** and **J. Kirk Higham**.

Since 2004, **Sue Hoy** and **Cecilia Medeiros** have been preparing students and administering the testing for the Student Math League and we praise their efforts and success.

Susan McCourt is serving on the local Social Networking team for the next AMATYC conference and **Greg Sethares** continues to serve on the CONNECT Math Project. **Jerry LePage** will be stepping down as department chair after this semester following 7 years in the position and 36 years at BCC in preparation for retirement in the never close enough near future.

The mathematics faculty at Bristol spent AY 08-09 revising their developmental mathematics and pre-calculus sequences. During the process they looked carefully at the 100% Math Project and the CONNECT Math Project guidelines, and the mathematics courses at the other 14 Massachusetts Community Colleges. The revisions were completed in November, 09, approved by our College-Wide Curriculum Committee in December, 09 and by the VP for Academic Affairs in January, 2010. The revisions will be offered in the Fall, 2010 semester. The new sequence has a total of 18 possible credits that a calculus student might have to take if the student begins with arithmetic. This is just below the statewide average of 18.6 credits. All this work will lead to better placement, advisement and student success and was well worth the effort.

Cape Cod Community College

Mary Moynihan has joined a national faculty team to develop online material for all community colleges. She has been invited to join a national team of five community college faculty who will adapt statistics curriculum materials for use in a new phase of Carnegie Mellon's Open Learning Initiative (OLI), the Community College Open Learning Initiative (CC-OLI). The team will create free, or nearly free, courses that can help expand access to higher education through the nation's community colleges. The OLI website says "Creating such open courses is part of the White House's education proposal to be considered by Congress in the coming months. The "American Graduation Initiative" sets aside \$500 million to provide open online learning courses to community college students. The White House has recognized OLI as a possible model for those courses".

Emerson College

Eiki Satake has recently been officially appointed as a Reviewer of the *European Journal of Psychology of Education*. Also, Eiki is establishing his own statistical / mathematical consultation service. The service will provide high quality consulting to educators, students, industry, and others, to assist and guide them with, for example, theses, dissertations, anything requiring research design and statistics.

Mt Wachusett Community College

Ken Takvorian reports that MWCC revamped its developmental math courses from 4- 3credit courses to a 3 credit basic arithmetic skills and 2- 4 credit Introductory Algebra courses to assist students in acquiring the necessary math skills quicker and for less cost.

We also instituted a free 16 hour, 2 week refresher math skills course late summer and winter intersession that reviewed skills from arithmetic (decimals/fractions/percents) thru Algebra (equation solving, factoring, graphing, polynomials, exponent rules).

Students re-took the college placement exam at the end of the program. All students improved their skills with some advancing one and possibly two course levels.

This spring we are offering a late start program where students take the refresher math skills for the first 2 weeks of the semester, retest and then move to the appropriate math course for 12 weeks. No change of the student schedule is needed as the appropriate math courses are set up for the remaining 12 weeks of the semester.

THANK YOU JUDY!

Judy Carter, North Shore Community College, has been the NEMATYC Newsletter Production Editor since 1999, working with my predecessor, John Jacobs, and then with me since my first newsletter in Fall 2004.

Knowing that Judy would so dependably get the newsletter produced and into your hands has made my job much easier. And working with Judy has made it more enjoyable.

I, and I know others, will miss her on the Executive Board, but we know we will see her at NEMATYC conferences.

So on my own behalf, and the behalf of all who have received this newsletter over the years, I say Thank You Judy.

WELCOME ANNE!

The NEMATYC Executive Board has appointed Judy's colleague Anne O'Shea to take over as the newsletter production editor. I know Anne and look forward to working with her. Anne has taught at the high school level, and was a member of the very first Project ACCESS cohort!

Phil Mahler
Newsletter Editor



Judy Carter, Anne O'Shea, Marsha Pease, at the NEMATYC 2009 Conference.

Join NEMATYC!

Can't attend the conference? We hope you'll support NEMATYC by renewing your membership. Please copy, complete, and return with a check for \$10 annual dues to
Lauren Brewer, NEMATYC Treasurer, Springfield
Technical Community College,
1 Armory Sq, Springfield, MA 01104

Name _____

Preferred Mailing Address _____

e-mail Address _____

Institution _____



Join NEMATYC - Join AMATYC
Professional development isn't all work!

Caught sneaking back from a shopping trip in Las Vegas, by the hotel pool: Dora Ottariano and Linda Dart-Kathios of Middlesex

CONFERENCE 2010
Preliminary Conference Program – NEMATYC 2010
 MassBay Community College - Wellesley

Friday – April 9th		
2:30 – 4:30	Registration, Refreshments	
3:30 – 4:15	Service at a Distance: Exploring New Technologies for the Teaching and Learning of Mathematics from Afar (13)	The Evolution of a Developmental Mathematics Program (14)
4:30 – 5:15		The Controversial Nature of Elementary Statistics (15)
6:00 – 10:00	Hors d'oeuvres and Speaker! **	

** This presentation is at the Natick Crown Plaza. A block of rooms has been reserved for conference attendees at this hotel. See [Local Accommodations](#) on the next page.

Saturday – April 10 th					
8 – 12	Registration, Exhibits, and Continental Breakfast until 10				
8:30 – 9	Welcome				
9 – 9:45	Developing Quantitative Literacy (1)	Active Learning in the Mathematics Classroom (3)	Integrating Scientific Computation Into An Undergraduate Mathematics Program (8)	Creating Your Own Personal Learning Network (18)	New Features in MyMathLab, MathXL, and MyMathTestand now MyMathLab Plus (20)
10 – 10:45		Success with ALEKS in the Developmental Classroom (19)	MAC 'n MOD (16)		Cengage Presentation
11 – 11:45	Classroom Activities for Elementary Statistics (12)	Are Short Answers Good Enough? Eliciting Better Math Practice Software (7)	Using the Tablet PC in Developmental Math Through Calculus Courses (9)	The “New Life” Project – Part 1 – Overview (2)	
11:45 – 12:15	Dedicated Exhibit Time				
12:15 - 2	Lunch with featured speaker Pearson author Jay Lehman Don't Believe Everything You Hear				
2 – 2:45	Making Connections: The Evolution of the 1946-1950 Boston Red Sox and Boston Braves, from a Statistical Perspective (4)	The First American Math book (5)	All Math Software is not Created Equal: What's the Difference? (17)	The Algebraic Models in Our World: A General Education Algebra Course (10)	The “New Life” Project – Part 2 – Workshop (2)
3 – 3:45		Reasons U'D Love UDL (11)			Calculus Reform at the Community College Level (6)
4:00 – 5:00	Business Meeting, Elections, and Door Prizes				

Register and Pay Fees at
<http://NEMATYC.org/Conferences/Conf2010/NEMATYCOnline/RegForm.html>
Book your room at
<http://resweb.passkey.com/go/NEMATYC>

CONFERENCE 2010

CONFERENCE PRESENTATION ABSTRACTS

FEATURED TALK: Don't believe everything you hear

Jay Lehmann, College of San Mateo

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.

1. Developing Quantitative Literacy

Brian Beaudrie, Emily Ricard, 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.

2. The "New Life" Project

Robert Cantin, MassBay CC

Phil Mahler, Middlesex CC

Part 1 – Overview: 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.

Part 2 - Workshop: A follow-up workshop to 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. Active Learning in the Mathematics Classroom

Dr David C Mello, Johnson and 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

4. 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.

5. 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 America? 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.

6. Calculus Reform at the Community College Level

Josef Sliwkowski, Sumithira Sukumar, MassBay CC

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

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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 presented

- MyMathLab
- Mathematica
- Wolfram/Alpha
- Google

along 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.

7. Are Short Answers Good Enough? Eliciting Better Math Practice Software

John C Miller, CUNY

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.

Note: one of the aforementioned "little-known programs" will be xyAlgebra, written by the proposed presenter.

8. Integrating Scientific Computation Into An Undergraduate Mathematics Program

Adam Hausknecht, UMass 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 commercial packages so that students can install the software 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 into 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. Using the Tablet PC in Developmental Math Through Calculus Courses

Linda Rottman, Jen Tyne, 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.

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

Robert Franzosa, Jen Tyne, 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.

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11. Reasons U'D Love UDL

Philomena D'Alessandro, Middlesex CC

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.

12. 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 measurement, 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

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

Norma Bisulca, Deanna McAleer, Linda Rottman, 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.

14. The Evolution of a Developmental Mathematics Program

Dr Kim Ward, Eastern Connecticut State College

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.

15. 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 Pearson 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.

16. MAC 'n MOD

Carol Hay, Linda Dart-Kathios, Beth Fraser, Carol Henry, Dora Ottariano, 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

17. All Math Software is Not Created Equal: What's the Difference?

Hawkes

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!

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18. 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 connect 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!

19. Success with ALEKS in the Developmental Classroom

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.

20. New Features in MyMathLab, MathXL, and MyMathTestand 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.

LOCAL ACCOMODATIONS

A block of rooms has been reserved at the Natick Crowne Plaza, 1360 Worcester Road, Natick, MA 01760. Call 888-233-9527 or visit the personalized web link: <http://resweb.passkey.com/go/NEMATYC>

Directions

[Hotel and Campus are on Route 9](#)

The campus is on Route 9 - the 50 Oakland Street parking is ¼ mile off of Rt 9. The hotel is on Route 9, south side, just across from the Natick Mall. The hotel is 7 miles, and 15 minutes, west of the campus.

Directions to MassBay Community College - Wellesley Hills campus are available on the college web site, <http://www.massbay.edu> . As of this writing, look for "Quick Links", "Locations", "Wellesley Hills".

If you go to Internet trip directions, use the following information.

Massachusetts Bay Community College
50 Oakland Street
Wellesley Hills, MA 02481

Directions to the hotel are available at the hotel web site,

<http://bos-natick.crowneplaza.com/> . For Internet trip directions use this address.

Crowne Plaza Boston Hotel - Natick
1360 Worcester Street (Rt 9)
Natick, MA 01760

<p>Conference Refund Policy: A refund of 100% of your advanced registration fees less the dues amount will be given upon receipt of a written request postmarked no later than two weeks prior to the conference. A 50% refund less the dues amount will be given if written request is postmarked within the two weeks prior to the conference. A refund for the Friday night dinner will be given dependent upon restaurant policy. No refunds for non-attendance will be given for requests postmarked after the date of the conference. All requests should be sent to the NEMATYC Conference Chairperson Refunds will be processed approximately four to six weeks after the conference.</p>
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CONFERENCE 2010

Conference Registration Form

Mail or Register Online by March 22nd and save \$10

Do this faster and easier online!

<http://NEMATYC.org/Conferences/Conf2010/NEMATYOnline/RegForm.html>

CONNECTIONS

New England Mathematical Association of Two-Year Colleges
36th Annual Meeting – April 9th and 10th, 2010
MassBay Community College, 50 Oakland Street, Wellesley Hills, MA 02481

Name: _____

Preferred Mailing Address: _____

Phone Number: _____

Email Address: _____

Institution: _____

- Do you plan to attend the Friday sessions (helps us plan)?Yes . . No
- Will you serve as a presider?Yes . . No
- In order to save money and paper, would you like to receive theYes . . No newsletter electronically only, that is no paper copy?

Conference Registration Fee (\$60 / \$70) \$ _____

\$60 if postmarked by March 22nd, \$70 after that date, and at the door. The registration fee covers admission to the conference, NEMATYC dues, and Saturday breakfast and lunch. *The early registration fee will be waived for one presenter per session.*

Friday Night Social (\$15) \$ _____

Total Enclosed* \$ _____

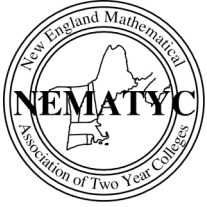
**Note the Conference Refund Policy on page 14 of the Newsletter.*

Make checks payable to NEMATYC and mail registrations to:

NEMATYC
Attn: Meredith Watts
Math Dept
MassBay Community College
50 Oakland Street
Wellesley Hills, MA 02481

Questions? Email Meredith Watts at mwatts@massbay.edu or call 508-270-4264

NEMATYC NEWSLETTER
Philip Mahler, Editor
Middlesex Community College
591 Springs Road
Bedford, MA 01730



**Register for the Conference,
Pay your fees, Book your hotel
room – Online! See page 9**

NEMATYC 2010 36th Annual Meeting

CONNECTIONS

MassBay Community College
Wellesley Hills, MA
Friday and Saturday
April 9-10, 2010



Meredith Watts, Chair

*Friday evening: Hors d'oeuvres and Speaker
Saturday Luncheon Speaker Pearson author Jay Lehmann
Friday and Saturday Presentations by you and your colleagues
Publishers Exhibits*

Program and Details Inside