

NEMATYC NEWS

The News is available online at www.NEMATYC.org



Vol 21, No 1

The newsletter of the New England Mathematical Association of Two-Year Colleges

Fall, 2012



From the President Meredith Watts

Welcome back!
I hope the first month of the semester treated you well.

By now, some of you are just starting to get over the excitement of our most recent Fall Dinner Meeting, brought to you by **Mary Moynihan** of CCC and **Denise Robichaud** of QCC. We thank them for the hard work they put into coordinating that renewed initiative! **Frank Morgan** of Williams College gave an entertaining and engaging talk entitled Baserunner's Optimal Path at O'Connor's Restaurant in Worcester. To all those who were able to attend, it was lovely catching up. We hope to see more of you next year and would love to hear your ideas about where we should meet and who we should have regale us with tales of their mathematical exploits!

This time of year is also when we gear up for mid-terms. I'm sure many of you are in the midst of preparing tests and preparing students (and putting up with familiar questions like "What will the test be on?" "How many questions?" "Are you going to give us a review sheet?" "Is there extra credit?")

Continued on page 3

From Your AMATYC Northeast Regional Vice President

Jane Tanner

NEMATYC Colleagues:

I hope everyone is off to a great start this semester. It is hard to believe that October is upon us. With that being said, the annual AMATYC Conference is just a few short weeks away. If you aren't a member of AMATYC, you definitely want to become one now so you can take advantage of all that AMATYC has to offer you.

The 38th Annual AMATYC Conference in Jacksonville, FL from November 8-11, 2012 is just one of the benefits of being an AMATYC member. This year's conference will feature the same networking, fantastic sessions, committee meetings, and featured speakers as always. For a welcome video, please go to (link 1)*. Be prepared, there are a couple of new twists!

**The links referred to are at the end of the article.*



Continued on page 3

Community Colleges: Beacons for Success

NEMATYC 2013
39th Annual Meeting
North Shore Community College
1 Ferncroft Road
Danvers, MA 01923
Friday and Saturday, April 5-6, 2013

Anne O'Shea, Marsha Pease, Co-Chairs
Call for Presenters Inside - Page 8





NEMATYC 2013

39th Annual Meeting

Community Colleges: Beacons for Success
North Shore Community College

Danvers, MA

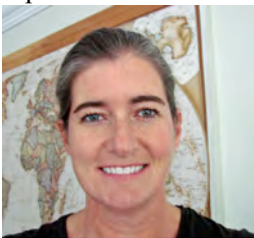
Friday and Saturday

April 5th and 6th

Anne O'Shea and Marsha Pease, Co-Chairs

Announcement and Call for Presenters Inside

North Shore Community College will be hosting the spring 2013 NEMATYC Conference, at the Danvers, Massachusetts campus on April 5 & 6. The success of our conference depends heavily on a variety of presentations. You undoubtedly have successful experiences and knowledge that you can pass on to other educators – please do this! See Page 8 for a call for presenters. In the past few years a spotlight has been focused on developmental mathematics education. Math Redesign and other innovative curriculums have been instituted at



Anne O'Shea

many of our New England two-year colleges. This conference will provide an opportunity to share your experiences and to learn what has worked and what has not, as we research, pilot and tweak our developmental math curriculum. In this era of self-paced and technology-based developmental math we are confronted with many questions and concerns. Of course, you are innovating and experimenting in college-level mathematics teaching as well. Flipping the class-room is just one strategy that



Marsha Pease

faculty are trying. In the spirit of the philosophy of mathematics education, and as we tell our students; “we learn by doing” so please get involved and consider submitting a proposal!

In addition to the slate of interesting, thought provoking topics, we hope you will enjoy the rich local history that surrounds the very modern campus of North Shore Community College. A block of rooms has been reserved at the DoubleTree Hotel, located just down the road from the campus. Stay the weekend and join us for our Friday night casual gathering and tour some of the local historic sites in Danvers, including the Rebecca Nurse House, just three miles from the campus as well as the world class Peabody Essex Museum and the McIntire District in neighboring Salem. You might also enjoy a scenic drive up the beautiful coastal route 127 to Gloucester and Rockport. While you are on campus we hope you take the time to check out the first state-owned Zero Net Energy Building (ZNEB) and second largest (ZNE) project in the country and also visit our new computer classroom designed exclusively for our newly redesigned developmental math courses. You will find a call for proposals in this newsletter.

Mark your calendars!

Anne O'Shea and Marsha Pease
Conference Co-Chairs
North Shore Community College

Rebecca Nurse Homestead
Danvers Historical Society
Danvers, MA 1678



First State-Owned Zero Net Energy Building
North Shore Community College
Danvers, MA 2011



Some of you have broken away from the “traditional” design for developmental math and have embraced “new design” and “emporium” and “self-paced” models. At the Spring 2012 NEMATYC Conference we heard from Bristol, Quinsigamond, North Shore and Middlesex CC about their efforts in this arena. I hope they continue to update us on how their new approaches are going and transforming, how they've overcome implementation obstacles and how they're adapting to the ever-changing student body.

I also know that other colleges are either in the process of transitioning or in the initial stages of new mathematical initiatives. I encourage anyone curious about or in the midst of these changes utilize the lessons learned from their fellow NEMATYC and AMATYC colleagues. For those who can attend, the 38th Annual AMATYC Conference is in Jacksonville, FL on November 8th – 11th this year and the 2013 NEMATYC Spring Conference will be on April 5th and 6th at North Shore CC (see the Conference Chairs' column in this Newsletter!) Don't forget that registration is free for one presenter. We would love to hear what you and your college and colleagues have been doing. What grants are you involved in? What new initiatives? I would love to see some sessions dedi-

cated to open discussions and sharing of ideas that worked!

For those who cannot attend, don't let that dissuade you from reaching out to your state and regional colleagues and engaging in the most vital of professional development opportunities: sharing best practices. We are all in this together and are all here to support each other in ensuring that our students get the best education they can.

For many of us, we've taught these courses countless times. Some of us have taught these courses innumerable times in the fall, spring and summer sessions. It's important to tend to our spirits and renew our enthusiasm in the classroom. The best way to do that is through professional development activities and a break from the daily grind. So if AMATYC 2012 and NEMATYC 2013 aren't possible, take a look to next year. I know that it would be a very Happy Halloween indeed if I could spend it at AMATYC 2013 on October 31 - November 3, 2013 in Anaheim, CA!

Meredith Watts
NEMATYC President
MassBay Community College

From the Regional VP – continued from page 1

Every conference that I have attended this year has introduced a conference app. This app can be downloaded before the conference so you will be able to access anything you want to know about AMATYC and the conference from your smart phone or tablet. AMATYC's Conference Coordinator Keven Dockter will kick-off the conference with a session entitled "Using the Conference App". If you haven't had a chance to use this before, you are going to want to start now!

Another new event for AMATYC is the Friday Night Ignite Event sponsored by the Innovative Teaching and Learning Committee. You will be amazed by this fast-paced event where twenty slides will be automatically advanced every 15 seconds and speakers will share their passions in 5 minutes. If you can't be there, this will be posted online for everyone to see after the conference.



For more information and example of Ignite events, go to (link 2). I have seen this done once at another conference - it definitely is something to see.



In the past, delegate packets for the Delegate Assembly were mailed to all delegates. Last year, instead of spending all the money on postage, the packets were emailed to all delegates. Another change (for the better) is going to be done this year thanks to technology. Since, everyone is welcome to attend the Delegate Assembly on Saturday afternoon, November 10th, it was decided to place the packet on our website (www.amatyc.org) so everyone could see what business is going to be transacted. Be sure to look for this about a month ahead of the meeting. If you have a question for the Delegate Assembly and can't attend the conference, be sure to let me know!

AMATYC is currently looking for an editor for our journal, MathAMATYC Educator. Pete Wildman has done a superb job since the new journal started in 2010 but he has decided that it was time to move on to other challenges. Would you like to read the articles in this journal before everyone else? Then you might be the right person to become the next editor. More information is available at (link 3).



If being an editor isn't for you, the position of Traveling Workshop Coordinator just might be. Hopefully you will have noticed that there are a lot of professional development opportunities available for AMATYC members - including



the conferences (go to (link 4) and click on any conference to see handouts and recordings) and webinars (go to (link 5) to view past ones). Traveling workshops can come to you and AMATYC is in need of someone to coordinate these offerings. This person in this position will assist the Professional Development Coordinator in developing workshop options and curricula for new workshop strands. More information can be found on pg. 12 of (link 6).

There are still other opportunities to get involved in AMATYC. Have you considered becoming a member of one of AMATYC's academic committees? There are nine of them so there is sure to be one (or more) to pique your interest: Developmental Mathematics, Division/Department Issues, Innovative Teaching and Learning, Mathematics for AAS Programs, Mathematics Intensive/College Mathematics, Placement/Assessment, Teacher Preparation, Research in Mathematics Education for Two-Year Colleges, and Statistics. More information is available at (link

7). All of these committees do meet at the annual conference, but they are also encouraged to meet electronically throughout the year.

Many two-year college mathematics instructors pay their AMATYC dues only when they can attend a conference. I certainly hope that I see you in Jacksonville. But, will you please consider joining AMATYC and maintaining your membership even when you can't attend the conference? Your support of this organization dedicated entirely to the teaching of mathematics at the two-year college level is greatly appreciated and helps us stay on the cutting edge of professional development as well as other services that we offer to two-year college mathematics faculty and their students.

It is my pleasure to currently serve as your Northeast Vice President. However, I will be stepping down due to term limits at the end of 2013. Have you considered running for this position? If the answer to this question is yes, you need to submit your nomination by February 1, 2013. More information on how to do this will become available by the end of the year at www.amatyc.org. Please let me know if you have any questions about the duties and responsibilities of this position. I will admit that there has been some work involved, but it has been very rewarding to see the changes that have been made in the organization during the past five years. You too could help guide the organization through the next two years! I hope to see you in Jacksonville!

Jane

AMATYC Regional Vice President
Jane D. Tanner
Onondaga Community College
Syracuse, NY 13215
tannerj@sunyocc.edu

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- (link 1) <http://www.youtube.com/watch?v=oKBGQnujBRk&feature=youtu.be>
(link 2) <http://igniteshow.com>
(link 3) <http://www.amatyc.org/documents/MathAMATYCEducatorEditor2012.pdf>
(link 4) <http://www.amatyc.org/Events/conferences.htm>
(link 5) <http://www.amatyc.org/publications/webinars/index.html>
(link 6) <http://www.amatyc.org/publications/AMATYC-News/2012August.pdf>
(link 7) <http://www.amatyc.org/committees/>

Have you heard about Wolfram Alpha? <http://www.wolframalpha.com>. If not, take a look at what is available to anyone, including our students, to use on-line. It will show the steps you might use to solve a linear or quadratic equation, even literal equations. Enter “solve $15x-A=9x+B$ for x ” for example. Then ask it “who was leonhard euler?”

NEMATYC Student Math League Report

Dave Henry (Bristol CC), Student Math League Awards Coordinator

RECOGNITION AWARD PROGRAM

The purpose of the NEMATYC Student Mathematics League Recognition Award Program is to foster extracurricular mathematics learning opportunities for students through participation in the AMATYC Student Mathematics League. The top-placing student in the AMATYC SML Competition, in each school in NEMATYC's service area, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, receives a \$100 Recognition Award.

The top school receives the Lois A Martin NEMATYC Student Mathematics League Award. This year it was awarded for the first time, and it went to **Quinsigamond Community College**.

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 encourages you to consider joining the AMATYC Student Mathematics League and participating in this NEMATYC program. Your involvement can be as simple as just administering the tests or might include practice sessions or even advising a campus mathematics club.

Do you offer your best students a chance to compete nationally?

Highlights and History

NEMATYC team participation accounted for 13 of the 20 teams in the Northeast Region last year. NEMATYC also placed five teams in the top 100 last year: Quinsigamond (45th), Bristol and Massasoit (tied for 78th), Greenfield (92nd) and Southern Maine (100th). NEMATYC schools have captured the Northeast Region title four times. Last year, 191 schools participated nationwide with 2,067 students taking the exams.

Join the Fun

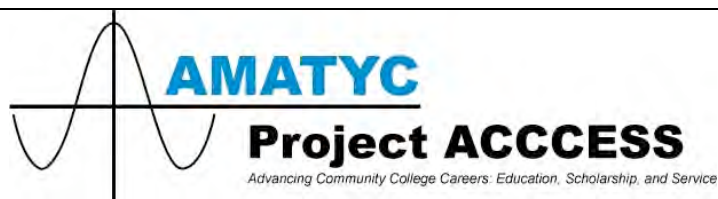
The first test of the 2012-2013 competition will be given October 19 - November 3. If your college does not have a team, please consider joining the spirited rivalry among the participating NEMATYC schools. Your students will thank you for giving them the opportunity to compete at the regional and national levels. Visit <http://www.amatyc.org/SML/> to register. It is free for institutional members and \$35 before Sept. 30 (\$50 after Sept. 30).

NEMATYC 2011-2012 Student Math League Standings

Rank	Name *	College	Score	Rank	College **	Score
1	Michael Smith	Quinsigamond	52.0	2	Quinsigamond	165.0
4	Kai Geffen	Greenfield	39.5	5	Bristol	135.0
8	Stephen Obinha	MassBay	36.5	5	Massasoit	135.0
9	Brian Martins	Bristol	34.5	8	Greenfield	121.5
12	Minh Nguyen	Southern Maine	34.0	9	Southern Maine	119.0
13	Julian Kuk	MassBay	33.5	11	Springfield Tech	109.5
14	Amirhossein Farvardin	Quinsigamond	32.5	12	Middlesex	104.5
15	Graham Dailey	Springfield Tech	32.0	13	MassBay	98.0
15	Jaime Balduenza	Bristol	32.0	14	Holyoke	96.5
19	Hardik Hanslia	Quinsigamond	30.0	15	NHTI - Concord	90.5
19	Joshua Keller	Massasoit	30.0	16	North Shore	83.0

*Students in the NEMATYC SML area who were in the AMATYC Northeast Region top 20 (out of 187)

**Teams in the NEMATYC SML area who were in the AMATYC Northeast Region top 20 (out of 20)



is a mentoring and professional development initiative for two-year college mathematics faculty. The project's goal is to provide experiences that will help new faculty become more effective teachers and active members of the broader mathematical community.

CALL FOR NOMINATIONS

Do you like getting together and having a good time with a great group of people? Are you a mathematics educator? If so, then NEMATYC is the group for you and the NEMATYC Executive Committee wants you to join our enthusiastic, friendly group.

Every year, during the business meeting at the annual conference, NEMATYC holds elections for open positions. At the 2013 conference, we will need to fill a number of Executive Board positions. The positions that will be available are:

**Vice President, Treasurer, and
Two Executive Committee At-large positions.**

We are looking for you to help us fill these roles. Working with our Board is a rewarding and fun experience, and is a wonderful way to put your professional dedication into action! It's great for you, your department and college, and the New England mathematics community. We can't promise a career boost, but for those of you who do not yet have tenure, just think how impressive it will look if you can say that you are on the NEMATYC Executive Committee! We would love to be able to say that every one of our member colleges has a representative on the Board.

The time commitment includes attending the annual conference (which hopefully you would attend anyway) and Board meetings that occur three times per year. These meetings are typically held in September, January, and June.

Here is a brief overview of the available positions (see the Constitution at www.NEMATYC.org for a more detailed description of each position).

Vice-President

- One-year term
- Conducts meetings and fulfills the obligations of the President if the President cannot
- Assumes Presidency if the President is unable to continue in office

Treasurer

- Three-year term.
- In charge of all the financial records and funds of the Association.

- Surrender the financial records of the Association for annual auditing to a designee appointed by the Executive Committee.
- Give a report at the annual business meeting.
- Retain an up-to-date membership list.
- Receive dues payments.

At-Large Member (two to be elected)

- Two-year term
- Attend Board meetings
- *A great way to get involved with NEMATYC!!*

Constitutional Duties of the Executive Committee:

1. Certify nominees as candidates for elected positions.
2. Review and present new business items to the annual meeting.
3. Review all constitutional amendments and bring their recommendations to the annual meeting.
4. Select the site and the date(s) of the annual conference.
5. Maintain the policy manual.
6. Perform all other duties needed to maintain the well-being of the association within the limitations of the constitution

Please contact Past President **Mary Kehoe Moynihan** at
MMoynihan@capecod.edu
for questions, information, or to place your name – or that of a colleague – into nomination!

Tidbits and Miscellanea

by Phil Mahler, editor

Speaking of Acronyms

- **AMATYC** is the **American Mathematical Association of Two-Year Colleges**. We know you have heard of AMATYC! <http://www.amatyc.org>
 - **ASA** is the **American Statistical Association**. <http://www.amstat.org>
 - **ATMIM** is the **Association of Teachers of Mathematics in Massachusetts** <http://www.atmim.net>
 - **ATMNE** is the **Association of Teachers of Mathematics in New England** <http://www.atmne.net>
 - **LAANE** is the **Learning Assistance Association of New England** “Our mission is to promote the acceptance, advancement and improvement of post-secondary developmental education through research and practice. As a regional affiliate of NADE, we are dedicated to helping underprepared students prepare, prepared students advance and advanced students excel.” <http://www.laanechapter.org>
 - **MAA** **Mathematical Association of America** <http://www.maa.org>
 - **MATYCONN** is the **Mathematical Association of Two-Year Colleges of Connecticut**. Like NEMATYC it is an affiliate of AMATYC. <http://www.matyconn.org>
 - **NADE**, the **National Association for Developmental Education**, “Helping underprepared students prepare, prepared students advance, and advanced students excel”. <http://www.nade.net>
 - **NCTM** is the **National Council of Teachers of Mathematics**. Primarily K-12 oriented, we do share a great deal in common and certainly have the same goals. Besides enormous national conferences, they hold large regional conferences as well. <http://www.nctm.net>
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We have been asked to call your attention to the next LAANE conference

Conference Announcement

Learning Assistance Association of New England

29th Annual Conference, Friday, October 26, 2012, Greenfield Community College

“Student Success: There’s an App for That!”

Keynote Speaker: Brenda Matthis, Director of the Lesley School of Education’s STEM Division and the Technology in Education Program, Lesley University, Cambridge, MA.

More information at <http://www.laanechapter.org/> .

JOIN NEMATYC

Not a member of NEMATYC?

Join by sending the \$10.00 annual membership fee, payable to NEMATYC,
to

David Cox, NEMATYC Treasurer
Southern New Hampshire University
2500 N. River Road
Manchester, NH 03106

Call for Presenters

39th Annual NEMATYC Meeting

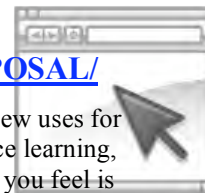
North Shore Community College – Danvers, MA Friday–Saturday, April 5-6, 2013

COMMUNITY COLLEGES: BEACONS FOR SUCCESS

Early Decision Deadline: Friday, January 25, 2013

EASIEST! **SUBMIT YOUR PROPOSAL ONLINE** at <http://nematyc.info/PROPOSAL/>

Suggested themes: teaching techniques, curriculum changes/development, distance education, assessment, new uses for technology, modeling data, connecting with students, math in the first two years, calculus, precalculus, service learning, transfer and articulation agreements, pedagogy, critical thinking, statistics, developmental math, or any other you feel is relevant to math education for the first two years of college.



Presenter _____

Note: The registration fee for ONE presenter per presentation will be waived. Please specify which one if there are multiple presenters. For multiple presenters, please provide the following information for EACH presenter. Use additional pages as necessary.

Contact information

College or affiliation _____

Contact Address (College Home) _____

Telephone: _____ E-mail _____

Time preference: Please indicate a first and second choice.	_____	_____	_____	_____
	Friday afternoon	Saturday Morning	Saturday Afternoon	No Preference

Length of presentation:	_____ 45 Minutes	Workshops, short seminars, discussion panels, poster sessions are encouraged.
	_____ 90 Minutes	

Presentation Title: _____

Abstract: * _____

* Normally 50 to 100 words. Attach separate sheet if this is easier.

Equipment/technology needs: _____

If you need additional information or have any questions, please call Anne O'Shea, 978-762-4000 x6264 or Marsha Pease x 5495, or email aoshea@northshore.edu, mpease@northshore.edu.

Proposal Early Decision Deadline January 25, 2013.

Mail to: Anne O'Shea Mathematics Department North Shore Com Clg 1 Ferncroft Rd Danvers, MA 01923	Email submissions accepted. Please include all of the above information. Email to aoshea@northshore.edu All submissions will be acknowledged by email.
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From the Archives at www.NEMATYC.org.

by Phil Mahler, Editor

The NEMATYC Conference: 40, 30, 20, 10, and... 1 Year Ago (more details are on the website)



MMATYC 1973 In 1973 NEMATYC still did not exist. The meeting was held by MMATYC (M for Massachusetts), the precursor to NEMATYC. The Executive Board met at Middlesex Community College on February 17 to plan the spring meeting. The Second Annual Meeting of MMATYC was held Friday and Saturday, March 30-31 at the now non-existent Yankee Drummer Motel in Auburn, Massachusetts.

Friday consisted of a Publisher's Forum, a President's Reception, and a Banquet. On Saturday presentations were given on *What Are Our Goals?*, *Math For The Liberal Arts Student*, *Calculus: Intuition Vs. Rigor*, *Teaching Math In A Small Junior College*, *The Use Of Computers In Teaching Math*, *Remedial Math*, *Math For The Service Areas*. The treasury held \$262.13.

MMATYC held a Fall meeting on October 13, 1973, at the Arnold House of the University of Massachusetts. The theme was *Continuing Education for the Two Year College Math Teacher*. A morning panel discussion titled *An Investigation Of A Doctoral Program Tailored To The Two-Year College Mathematics Teacher* was moderated by David Richardson of Bristol CC.

NEMATYC 1983 was held at Central Connecticut State University, in New Britain, Connecticut, on Saturday, March 26, 1983. The theme was **Mathematics for the 80's: Curriculum Development and Applications**. **Wilfred Boykin** of Central Conn. State Univ. was the Coordinator. We heard, at a cost of \$16 per person: Keynote speaker **Solomon Garfunkel**, and Presentations *Applications Of Calculus In The Area Of Eng/Science And Business*, *Articulation Between Two-Year And Four-Year Colleges*, *Using The TRS-80 In The Classroom*, *Testing And Placement*, *Panel, Developing Relevant Classroom Computer Activities In 20 Lines Or Less*. On June 6, 1983 a committee consisting of **Bob Yawin**, **Josephine Gervase**, **Frank Deane**, **Jean Smith**, and **Joe Menard** met to discuss a firmer foundation for the then unstructured NEMATYC. For the past few years, it had been the practice to haphazardly choose the annual meeting site and coordinators. It was the feeling of many members that a little more formal structure, but without a formal constitution, be effected. This committee presented their proposals to the membership at the 1984 meeting.

NEMATYC 1993 The Annual Meeting was held at Middlesex Community/Technical College, in Middletown, Connecticut, on Saturday, April 17, 1993, hosted by the still very active **Steve Krevisky**. The theme was **Let's Have Fun in 2001!** This was a joint meeting with MATYCONN. The meeting was originally scheduled for Saturday, March 13, 1993, but the snow "Storm of the Century" required that the meeting be called off, literally at the last minute. The delay reduced attendance and the size of the program. The meeting was rescheduled for April 17.

Jean Smith was the keynote speaker. Presentations were: *Helping the Math Anxious Student*, *The Pigeonhole Principle*, *What's Changed in 70 Years of Math Education*, *TI-81 for Beginners*, *Bayesian Statistical Point of View, (Determining the accuracy of public opinion polls and surveys)*, *Use of TI-81 Calculators in Pre-Calculus*, *Project Wonder Flea - Benefits and Drawbacks of Calculus Projects*

NEMATYC 2003 was held on Friday and Saturday, March 28-29 at Johnson & Wales University. Conference chair was **Tom Pandolfini**. The Friday night speaker was **Dave Abrahamson** of Rhode Island College. There were 25 presentations, on topics like Service Learning, teaching Statistics online, "Little gems" and "Math Appetizers", the AMATYC standards, teaching developmental math with computers, and others on using technology.

1 YEAR AGO - NEMATYC 2012 - on the next page

NEMATYC 2012 was held at **NHTI-Concord's Community College**, Concord, NH on Friday and Saturday, March 30-31. The theme was "Math: Conquered in Concord". The conference chair was **Judy King** of NHTI. Besides a great program, attendees enjoyed Friday evening appetizers at the Kimball Jenkins Estate, and at lunch on Saturday enjoyed a talk by one of NEMATYC's founders, **Herb Gross**. A small sample of the 31 presentations are: Ready for "New Life" in Developmental Mathematics **Jim Sullivan, Lori Heymans**, Making Math Real: A Bottom-Up Approach **Joe Heise**, What, I can't lecture all the time? How Do I "teach"? **Florence Chambers**, Course Redesign: What Works **David Henry**, Outcome-based Curriculum and Course level Assessment **Lynne DeSantis and Veronica P. Hupper**, C-OLI Statistics: Free, Research-based Online Learning Materials **Mary Moynihan**, Math Education - Making the Transition from High School to College and Career **Robert Bragdon**.



Herb Gross, founder of NYSMATYC, AMATYC, and NEMATYC !!!, spoke to attendees about his message of what it means to be a community college teacher.



Former NEMATYC President **Carol Henry** talks to **Lucyann Zeller**, NHTI, in the registration area, with publisher displays and many wonderful goodies for attendees to eat.



Plenary meeting with our Keynote, Awards, and Door Prizes



From the left, **Anne O'Shea**, **Mike Williamson**, and **Dave Henry** talk about what works in course redesign.

Submit a presentation proposal for the April 2013 meeting at <http://nematyc.info/PROPOSAL/> .



Joe Heise, NHTI, presents on Making Math Real.



The 2011-2012 Executive Committee

News from our Campuses and Colleagues

Cape Cod - Mary Kehoe Moynihan reports

We have hired two new mathematics faculty members. **Mary E. Sullivan** and **Tony Furtado**. Mary has been an adjunct faculty member at CCCC for many years, and full-time at Massasoit CC since 2007. Tony has taught as an adjunct faculty member at Greenfield CC and Holyoke CC.

Mount Wachusett - Ken Takvorian reports

Aliza Miller is a new Assistant Professor of Mathematics at Mount Wachusett Community College. Originally from New York State she received her B.S. at McGill University and completed her M.S. in Mathematics at the University of Vermont (UVM). Aliza has taught English as a second language in Taiwan and math courses at several colleges in Vermont, including: The Community College of Vermont and Vermont Technical College. Aliza has gained recognition for her teaching in both Taiwan and at UVM as a teaching assistant. Aliza continues to strive for student's understanding of math literacy.

Kenneth Takvorian spoke at the MCO conference about the numerous MYMATHLAB features and also at the Developmental Math Conference at Massasoit CC about the newly created Emporium Computer Lab developmental math course with Mastery Learning (both PowerPoint presentations will be sent upon request).

The new course combines the 3 developmental math classes into one course (3 levels) with testing that allows for bypassing a level or a chapter upon successfully showing Mastery at 80% or better with 1 attempt. Otherwise, a student needs to complete the learning of material thru homework, prep test and chapter test. The class is staffed by a professional tutor and a professor. Early results are showing promising results with students accelerating thru the material at different rates.

Bristol

Elizabeth Donovan was awarded a Fellowship by the Mathematical Association of America for Project NEX T (a professional development program). **Dan Avedikian** is the new Department Chair. The Department recently created a Developmental Mathematics Coordinator position and Donovan was appointed to the position.

Quinsigamond - Denise Robichaud reports

Vision Project Update

Preliminary results from last year's emporium style developmental classes are that students had increased success, compared to non-emporium classes, in the two lower levels (Basic Math and Beginning Algebra), and there was no change in success rate for the higher level (Intermediate Algebra). Professor **Leslie Horton** led the effort. This year, under Professor **Philomena Brassard's** leadership, the emporium offerings will continue, with extra attention being paid to the Intermediate Algebra course.

Next spring we will offer some modularized Basic Math classes. Based on those results, modularized Beginning and Intermediate Algebra class offerings might follow. Professor **Eileen Potvin** will lead this effort. Math Boot Camps to accelerate students' progress into college level math continue to be offered at QCC and in the Worcester Public Schools (WPS). The Boot Camps are in high demand at QCC, and based on last year's results, have been embraced by the WPS. Professor **Aemiro Beyene** continues to lead this effort.

Professor Leslie Horton has been named as a PARCC Fellow for Massachusetts. In this capacity she will act as a liaison between secondary and higher education institutions. The Partnership for Assessment of Readiness for College and Careers is instrumental in creating the assessment for the Common Core State Standards for high school graduation, which have been adopted by 23 states to date.

Community College of Rhode Island

Mike Latina has retired after 41 years at CCRI. Mike was long active in the early years of NEMATYC. The NEMATYC history page for 1982 http://history.nematyc.info/NEMATYC_1982.html shows that NEMATYC was held at CCRI and Mike was a presenter, on "Supertrigonometric Functions".

Bunker Hill - Kiruba Murugaiah reports

Kiruba Murugaiah submitted an extensive report, starting on the next page. There are two new models for reforming curriculum lately, "course redesign" and "New Life / Quantway / Statway". Bunker Hill has moved in the second direction.



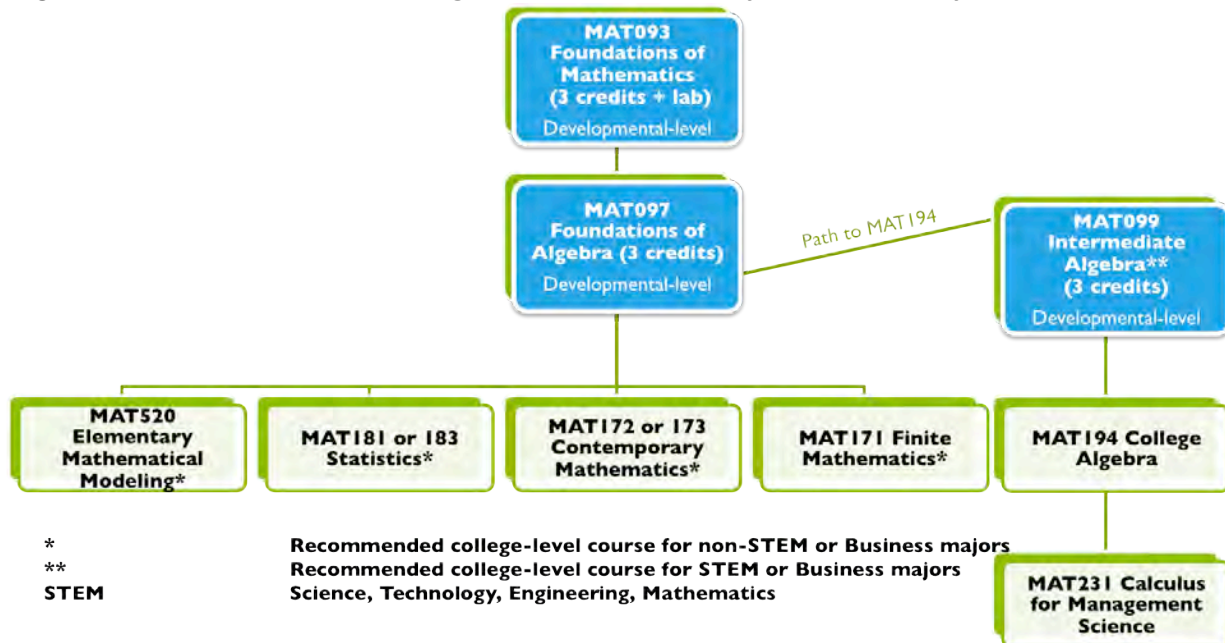
Faculty Training at Bunker Hill

**REVISING DEVELOPMENTAL MATHEMATICS
BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA**

From Fall 2008 to Spring 2012, Bunker Hill Community College offered a 3-course sequence for developmental mathematics. Data analysis by the college’s Office of Institutional Effectiveness and Research found that in the 2010 – 2011 academic year, amongst students placing into the first developmental level course, only 23% completed College Algebra for STEM, 51% completed College Algebra, and 58% completed Statistics. With only 50% of students placing into the first level of the sequence passing the course on their first attempt combined with the 7 possible points of exit for those students, the college’s student success rates was inadmissibly low.

However, significant success in two models of acceleration, where students could complete the first two levels in one semester, piloted from 2010 to 2012, showed evidence of student success rates at over 75%. Motivated by the possibility of sharply higher success rates, the Bunker Hill math department embarked on a revision of its developmental math sequence in Spring 2011. The revision was based on extensive research of current best practices across the nation, was entirely faculty-driven with strong support from the Administration, and is being implemented this Fall 2012.

The new sequence constitutes a 2-course pathway for non-STEM degrees and a 3-course pathway for STEM-degrees, much in line with the Carnegie Foundation’s Statway™ and Quantway™ models.



The **AMATYC Conference** this year is
 November 8 - 11 in **Jacksonville, FL**
 Would you have a great time, meet interesting colleagues, get new ideas for
 your curriculum and teaching, and generally get your batteries recharged?
 Are you kidding? It’s an AMATYC conference!
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 Register at www.amatyc.org.

Highlights of New Sequence

- **Streamlines students based on their degree or concentration**

By providing different pathways for STEM and non-STEM degree students, the college effectively shortened the path for 89% of its students who pursue non-STEM degrees and strengthens Algebra skills for those in the STEM pathway.

- **Offers an Acceleration Option**

- **Shifts pedagogy in content delivery**

The sequence change emphasizes contextualized problem solving and project-based learning that integrates a service learning component and e-Portfolios to showcase student work. It increases focus on student engagement and community building in order to shift non-college ready students' dispositions and habits of the mind. It also integrates technology using Pearson's *MyMathLab* for skills development, mandates an additional activity hour for students, and offers the option of a Learning Community First-Year Seminar linked with a developmental math course designed to support student success.

- **Supports students' college-readiness**

Targeted advising, tutoring, and student services to include deeper faculty involvement, free bootcamps and summer bridge programs for incoming and current students, and a free online Accuplacer review for improved placement results were key to ensuring students transitioned smoothly to the new sequence. Additionally, we aligned Accuplacer placement scores to the new sequence by beginning with the Algebra test before branching students to the Arithmetic or College Math Test.

- **Supports developmental math instructors' continued professional development**

According to the National Center for Academic Transformation (NCAT), "currently in higher education, both on campus and online, we individualize faculty practice (that is, we allow individual faculty members great latitude in course development and delivery) and standardize the student learning experience (that is, we treat all students in a course as if their learning needs, interests, and abilities were the same). Instead, we need to do just the opposite: *individualize student learning and standardize faculty practice*.¹

In line with this recommendation, the math department used working groups composed of full-time and adjunct faculty and staff to develop common syllabi, *MyMathLab* master courses, common projects, assessment tools with rubric etc. Extensive collaboration amongst the working groups was necessary to align expectations of the 3 courses for uniformity and cohesiveness. Additionally, a series of professional developmental workshops are being provided throughout the semester designed to inform and engage all developmental math instructors, to embrace the shift in pedagogy and adopt the common tools.

Supporting faculty development through organizing presentations on best practices and lessons learnt by leading educators and fostering a stronger community and culture of sharing amongst all developmental math instructors, both full-time and adjunct alike, are priorities in making the transition a success. Also, by allowing for continual reflection and revision of the sequence based on data analysis, instructor feedback, and student experiences, Bunker Hill anticipates greater success rates in the new sequence.

¹ *Five Principles of Successful Course Redesign* (2005). The National Center for Academic Transformation. http://www.thencat.org/PlanRes/R2R_PrinCR.htm. Last accessed on June 26, 2012.

NEMATYC has a Facebook page

Susan McCourt, NEMATYC Social Media Editor maintains NEMATYC's Facebook page.

If you want to get news about NEMATYC and math and you're on Facebook, search for New England Mathematical and you'll find us.

If you "Like" the page, you'll see items of interest to NEMATYC members and friends. If you're not on Facebook, please share this information with your colleagues.

Want to "like" the page? Logon to Facebook and look for us or use this link:

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Please share with other math folks. Once we have 25 "likes" we can shorten the page link!



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The following three items are from "Measuring America" by Andro Linklater, 2002.

"Hundreds of years ago in England, when surveying became very important but surveyors were not necessarily adequately prepared, "the surveyors' commonest trick when faced with finding the area of an irregular shape was to add the lengths of all the sides, divide the total by 4, then square the result. The answer was quick, easily worked out, and always wrong, but usually not by enough to alarm the owner." *Editor: Was this method always wrong?*

At the time of the American revolution the legal tender was the British pound, divided into twenty shillings, and each schilling divided into twelve pennies. However a half dozen other currencies were widely used, notably the Spanish dollar and French louis d'or. **Thomas Jefferson** advocated making the official currency the Spanish dollar, subdivided into dismes (dimes), hundredths (cents) and thousandths (mills). He told Congress

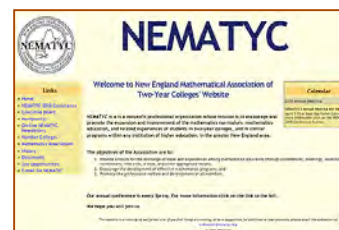
"Every one remembers that when learning money arithmetic, he used to be puzzled with adding the pence, taking out the twelves and carrying them on; adding the shillings, taking out the twenties and carrying them on. But when he came to the pounds where he had only tens to carry forward, it was easy and free from error. The bulk of mankind are school boys thro' life. These little perplexities are always great to them."

Editor: So, if one sheep were to sell for 3 pounds, 17 shillings and 9 pence, what is the cost of 25 sheep? Thank goodness congress listened. Jefferson supported a system of measurement using decimals as well, but that did not occur.

Jefferson, who was a good mathematician, wrote in his autobiography in his seventies, regarding his studies at William and Mary College, "It was my great good fortune, and what probably fixed the destinies of my life that Dr. Wm. Small of Scotland was the professor of Mathematics, a man profound in most of the useful branches of science" and "To his enlightened guidance and affectionate guidance of my studies while at college, I am indebted for everything."

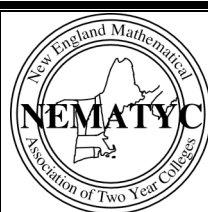
Visit the NEMATYC website!

Webmaster **Rick Butterworth** maintains the NEMATYC website. Go to <http://www.nematyc.org> and browse the links: Conference, Executive Board, Membership, On-line Newsletters, Member Colleges, Mathematics Associations, History, Documents, Job Opportunities, E-mail for NEMATYC.



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Submit a presentation proposal for the April meeting at <http://nematyc.info/PROPOSAL/> .