



NEMATYC NEWS

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Vol. 24, No. 2

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

Spring, 2016

NEMATYC

RELAX, REFRESH, RENEW AGAIN
@ CAPE COD COMMUNITY COLLEGE

NEMATYC 2016

42nd Annual Meeting

R³ AT 4Cs T2

Friday and Saturday, April 29-30, 2016

Mary Kehoe Moynihan, Wanda Garner, Co-Chairs
Cape Cod Community College
West Barnstable, MA

Inside

- You can still submit a presentation proposal.
- How to Register

PRESIDENT'S MESSAGE

DAVE HENRY

BRISTOL COMMUNITY COLLEGE



We are well into the new semester and so far no snow days! Although snow days offer a brief respite, they can create stress for students and faculty alike trying to cram in the material in fewer course meetings.

I hope everyone had a good break and is recharged for the spring. It was great to see some folks down in New Orleans in November at the annual AMATYC conference, but if you missed it, our annual NEMATYC conference is just around the corner on beautiful Cape Cod, April 29 & 30th. While the National Conference provides tremendous opportunity to meet and learn from colleagues around the country, let's not overlook the local conference's unique opportunities for valuable professional development.

Sharing within the region provides more specific content that can be easier to adopt within our own systems. What someone is doing in a different state with different mandates may be exciting, but not line up with our state colleges' goals. Not to mention that you get to reconnect with local colleagues and get a 2-for-1 night stay on the beach!

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AMATYC NORTHEAST REGION VICE PRESIDENT

ERNIE DANFORTH



Welcome to winter in the Northeast. I spent last weekend of January 16th in Memphis at the biannual Strategic Planning and Orientation Meeting for the AMATYC leadership. The Executive Board, the Executive Director, the committee chairs and members of the AMATYC office staff spent three days getting acquainted or reacquainted as well as planning for the next two years and beyond. It was a very productive weekend.

There are some dates that I want you to keep in mind. First of all, the deadline for presentation proposals for the Denver Conference next November was February 1. But you may want to consider signing up to preside at a session in Denver. This is a very important job and there can never be too many volunteers for this job.

Also there are 4 affiliate conferences this spring.

- NYSMATYC will meet April 8-10 at the Best Western in Kingston, NY Josh Hammond is the coordinator. More information can be found through the NYSMATYC web-site
- MATYCONN will meet April 15th at Tunxis Community College in Farmington, CT. More information will be forthcoming.

continued on page 7

CONFERENCE CHAIRS' MESSAGE

NEMATYC 2016 42nd ANNUAL CONFERENCE

Friday–Saturday, April 29-30, 2016

Mary Kehoe Moynihan, Wanda Garner, Co-chairs
Cape Cod Community College
2240 Iyannough Road
West Barnstable, MA 02668

R³ AT 4Cs T2



Hi! We hope your spring semester is off to a good start. And what a perfect time to think about our spring conference.



It's April 29th and 30th – same two days as our 2011 conference. Hopefully, that's a good sign and we'll have the same beautiful Cape Cod spring weather that we did five years ago.

We'll be at the same locations where we held the 2008 summer statistics institute, the 2009 AMATYC *Beyond Crossroads* workshop, and the 2011 NEMATYC Conference – right on the beach in Dennis Port at the Corsairs and Cross Rip. See pictures on the following pages.

We'll have the Friday afternoon and Saturday sessions at Cape Cod Community College, and the Friday night event at the house between the two hotel buildings, also just like last time.

We are thrilled that **George Cobb** will be our keynote speaker on Saturday giving a general interest talk on “Teaching Abstraction-as-Process.” Professor Cobb is Professor Emeritus of Mathematics and Statistics at Mount Holyoke College. George has devoted much of his professional career to working with other faculty to help reform the teaching of statistics.

The Friday night activity will be a social time. We'll have some fresh seafood appetizers, pizza, and sumptuous desserts. Come and catch up with old friends or make some new ones. Pearson Publishers is supporting this event.

The conference is a month later than 2015 so there's still plenty of time to get a proposal in – February 13, 2016 is the early decision date. NEMATYC is a great place to give your first ever conference presentation or test run your AMATYC talk. Every attendee is a friendly nearby colleague.

If you're not ready to present, come and support your colleagues and see what's happening at sister schools. NEMATYC provides an excellent, low-cost professional development opportunity. And it's fun!

Whether it's your first visit or a favored getaway, welcome to Cape Cod. We'll provide good food, a classic Cape Cod beach hotel, some interesting mathematics talks, and the opportunity to meet some new colleagues or reconnect with longtime friends. And if we get a few rays of sunshine, so much the better.



Attend a Friday talk and join us for dinner at the beach. We'll have a pizza event Friday night at the Commodore House, located on the grounds of the conference hotel. Join us for breakfast Saturday morning and a full day of talks, rounded out by the business meeting to end the conference. Then, stay another day for free!

Cheaper than staying home! The Corsair and Cross Rip Oceanfront Resort, located at 41 Chase Ave, Dennis Port, MA 02639 has a special for April 29th and 30th: "Book two nights and pay for one". If you book a room for the conference (\$125/night plus tax) the second night is free. You don't have to stay the second night but... why wouldn't you! Call (508) 398-2279 to make a reservation. Be sure to mention NEMATYC 2016. Also, if you would like to stay additional days they will honor a \$99/night rate for NEMATYC conference attendees.

We're looking forward to seeing you on "the Cape of Cod", to quote Radar O'Reilly in M.A.S.H.

Mary and Wanda

R³ AT 4Cs T2 is "Relax, Refresh, Renew at the 4-C's x 2") (4-C's is of course "CCCC")

Pics from NEMATYC 2011. College and hotel are the same.



Co-Chair **Wanda Garner** (past AMATYC President, current AMATYC Executive Director), **Jack Keating** (Past NEMATYC President, Past AMATYC Northeast Vice President, Conference Chair AMATYC 1993), Co-chair and NEMATYC President **Mary Kehoe Moynihan** behind the flowers, **Cliff Martin** standing.



The hotel is on the water! Mike Cassie of iLearn surveyed the beach from his room.

Lots more pictures at http://history.nematyc.info/NEMATYC_2011/

REGISTER TODAY!

Even if you qualify for a free registration, you must register.

You can register online by clicking using the following link or filling out the registration form in this newsletter.
<http://nematyc.info/register>

NOTICE

Proposed Bylaw Change

At the business meeting on April 30 members will be asked to vote on a proposed bylaw change to empower the Executive Committee to approve the minutes from the spring business meeting. This is common practice and recommended by Robert's Rules for bodies that meet only annually.

LOCAL ACCOMMODATIONS

Stay on the Beach at Very Low Rates

Friday Evening Pizza Party on the Premises

Participants stay at special rates at the Corsairs and Cross Rip Oceanfront Resorts (<http://www.corsaircrossrip.com/>).

The Corsairs and Cross Rip are classic Cape Cod hotels side by side on the beach in Dennisport. The Friday evening Pizza Party, sponsored by **Pearson**, is in the building between the two hotel buildings.

Rooms are \$125/night plus tax and the second night is free. You don't have to stay the second night but... why wouldn't you! Call (508) 398-2279 to make a reservation. Be sure to mention NEMATYC 2016.

Relax, Refresh, Renew at
Cape Cod Community College

The Corsair & Cross Rip Oceanfront Motel
41 Chase Ave
Dennisport, MA 02639
Call 508-398-2279



Register for the meeting at <http://www.nematyc2016.eventbrite.com>

Call (508) 398-2279 to make a hotel reservation. Be sure to mention NEMATYC 2016.

DIRECTIONS

For your GPS or Web Search

- **Hotel:** The Corsair & Cross Rip Oceanfront Motel :: 41 Chase Ave. :: Dennisport, MA 02639
- **College:** Cape Cod Community College, 2240 Iyannough Road, West Barnstable, MA 02668



AT THE MEETING

REGISTRATION

Friday 2:30 pm – 4:30 pm
Saturday 8:00 am – 12:00 pm
Grossman Commons Building, Cafeteria – Main Floor

PRESENTATIONS

Friday 3:15 pm – 5:00 pm
Saturday 9:00 am – 3:45 pm

BUSINESS MEETING

Saturday 4:00 pm – 5:00 pm
Notice of a proposed bylaw change is on page 3.



FEATURED SATURDAY SPEAKER

GEORGE COBB

Professor George Cobb is Professor Emeritus of Mathematics and Statistics at Mount Holyoke College. George has long been an active, influential leader in the teaching of statistics. He is a Fellow of the American Statistical Association (ASA) and a recipient of ASA's Founders Award. He received the USCOTS Lifetime Achievement Award in 2005.



Teaching Abstraction-as-Process

Teaching mathematics at two-year colleges is rightly recognized for two important reasons: (1) Two-year colleges offer a transition from high school to four-year college. (2) Mathematics is useful to non-mathematicians mainly because of its applications.

I applaud both reasons, but in my talk I plan to argue for two more ambitious albeit less recognized reasons. (1) Although TYCs matter because they offer a transition to four-year colleges, they matter even more because they offer a transition from high school classes to life-long learning. (2) Although mathematics can be useful because of its applications, it can be even more useful because it can inspire students to value abstraction-as-process.

These two ambitious goals are related. Applications of mathematics depend on models, and as the statistician George Box wrote, "All models are wrong; some are useful." Finding a good model depends on the process of abstraction: How do we put a messy problem into our crucible, boil off the irrelevant detail, and reveal the crystal of pure structure? If we teach mathematics as the process of abstraction, we can teach mathematics as part of life long learning.

In my talk I will rely on an example derived from the nastiest-ever academic food fight over the meaning of a big table of 0s and 1s. (Along the way I'll introduce some ideas that underlie the important new computational method known as Markov Chain Monte Carlo.) Resolving the food fight depends on the process of abstraction. Once viewed abstractly, the problem turns out to have a simple structure.

Brief Biographical Highlights

George Cobb has spent his entire life changing his mind and looking for cusps to perch upon. His childhood ambitions, in succession, were to be a herpetologist, a center for the Green Bay Packers, a surgeon, a chemist, and, by the end of his senior year in high school, aspiring ever upward, a mathematician. It is no surprise, therefore, that when he graduated from Dartmouth in 1968 he had been accepted into graduate programs in Russian literature. Like Mae West, he drifted, eventually earning a PhD in statistics from Harvard in 1974, but he maintains his love for mathematics and his conviction that Plato was right: mathematics is the easiest subject, and so every philosopher king should devote a decade to its study before presuming to tackle the harder subjects of politics and sociology. Cobb spent his entire teaching career at Mount Holyoke College, from 1974 until his retirement in 2007, dedicated to this conviction.

[Editor: Go to <http://www.amstat.org/> and search on George Cobb for lots more.]

SAMPLE OF PRESENTATIONS

Teaching an application of Bayes' rule for legal decision-making

Eiki Satake, Emerson College

Although Bayesian methodology has become a powerful approach for describing uncertainty, it has largely been avoided in undergraduate statistics education. Here we demonstrate that one can present Bayes' rule in the classroom through a hypothetical, yet realistic, legal scenario designed to spur the interests of students in introductory- and intermediate-level statistics classes. The teaching scenario described in this research talk not only illustrates the practical application of Bayes' rule to legal-decision making, but also emphasizes the cumulative nature of the Bayesian method in measuring the strength of the evidence. Within the context of the legal scenario, we also introduce DNA analysis, implement a modified version of Bayes' rule, and utilize Bayes factor in the computation process to further promote students' intellectual curiosities and incite lively discussion pertaining to the jury decision-making process about the defendant's status of guilt.

Teaching a Prestatistics Course: Propelling Non-STEM Students Forward

Jay Lehmann, College of San Mateo

Many colleges are propelling non-STEM students through math programs by creating a path-to-stats course, which can be taken in place of elementary and intermediate algebra. Innovative use of density histograms, challenging data-centered exercises, and interpretation of statistical concepts can greatly enhance students' understanding and eventual success in a statistics course.

The Mastery Model in Teaching Beginning Algebra

Glenn Newman, Newbury College

For the last few years the mathematics department at Newbury College has been concentrating on improving MH103-Integrated Algebra. Previously the department taught traditional Algebra I and Algebra II courses. There was a lot of overlap in those two courses so it was decided that one course would suffice.

In addition during the class students retook any exam in which they scored less than seventy-five percent. Exams were given during a lab section. At the time students were not required to attend lab except to take exams. In addition, students who did not finish the course but completed three of the five exams were allowed to finish (on their own time) during the following semester. We have since adjusted the course and saw the passing rates increase to roughly 80%.

Designing Straight, Spiral, and Circular Staircases

Robert Cournoyer, Wentworth Institute of Technology

Two Laboratory Investigations will be presented.

The first presentation will show how a straight staircase can be designed that conforms with Local Building Codes as well as an architectural "comfort" Rule. The presentation shows how the building codes and the architectural "comfort" rule can be translated into simple linear inequalities. The graphing of these linear inequalities leads to a feasibility region. A problem will be worked out resulting in a straight staircase design.

The second presentation will build upon the first presentation. By using the properties of isosceles triangles and some simple right triangle trigonometry, spiral and circular staircases can be designed to conform to local building codes as well as a "comfort" rule. Two problems will be demonstrated leading to a design of a spiral staircase and to the design of a circular staircase.

Effective Developmental Math Interventions: Khan Academy and Student Success

Tim O'Connor, New England Board of Higher Education/DMDP

Learn how you can use what we learned from the New England Board of Higher Education's three year Developmental Math Demonstration Project (NEBHE-DMDP) with Khan Academy. We'll share the results of our field study and discuss the implications for your classroom.

In this double session you will:

- View a brief tour of the Khan Academy tools available to you and your students
- Understand the:
 - Four essentials of a successful Khan Academy implementation
 - Three Keys to unlocking the power of Khan Academy
 - Six most pressing challenges to personalizing your teaching
- Use Khan Academy during the hands-on portion of this session

We'll close with a short de-brief on how you might use Khan Academy with your students.

Bonferroni Confidence Intervals Using Excel

Barry Woods, Unity College

While Tukey multiple comparison tests are used to find significant differences in means after a significant ANOVA, Bonferroni confidence intervals are used to find significant differences in proportions after a significant chi-square goodness of fit test. Excel and the TI graphing calculator will be used to construct such confidence intervals.

Examples using M&Ms and from Wildlife Biology will be used to demonstrate the construction of the Bonferroni Confidence Intervals.

Methods and Results From a Flipped Statistics Classroom

Billy Jackson, North Shore Community College

You've heard about flipping your classroom and you've thought about it yourself. It sounds like so much fun (right?!), but so much work (!). This presentation will layout a simple and portable model for flipping a statistics classroom right down to providing an available affordable textbook (\$40) that comes with a complete set of prepared YouTube video lectures, a complete set of group work exercises for class, and an online software (WebAssign) for supplementary practice. The presentation will also discuss the presenter's quantitative findings from one semester of flipping the classroom and results of student surveys.

AMATYC Affiliate Scholarship

NEMATYC awards its AMATYC Affiliate Scholarship (one free conference registration, worth \$300+). At the conference every school in NEMATYC's service area will be in the running to win the scholarship through a raffle held at the lunch meeting. Someone from that school must be in attendance at the business meeting. Each institution will determine the individual recipient, who must be an active AMATYC member. In the spirit of the scholarship priority should be given to first-time attendee.

President's Message – continued

I want to welcome **John McColgan** of Roxbury CC who has accepted appointment as the new NEMATYC Student Mathematics League Coordinator. And I want to congratulate **Phil Mahler** (Middlesex) on being awarded the second Herb Gross Lifetime Achievement Award in New Orleans.

Although I am a big proponent of AMATYC's project ACCCESS, which is a mentoring and leadership program for faculty members in their first three years of full-time work, I don't think there have been many new hires across the region. (If there is a new hire that I don't know of get your application in by May 9th. We've had numerous NEMATYC alumni of the program. Feel free to contact me for details.) Therefore, I instead want to challenge someone to nominate a veteran faculty member for AMATYC's Teaching Excellence Award.

The Teaching Excellence Award is presented in odd years, so the deadline for nominations for 2017 recipients is December 9, 2016. Campuses have almost an entire year to assemble the nomination materials. And, more nominations result in more recipients! What better way to send off a colleague before retirement than a national award for their decades of service. Furthermore, the nominator does not have to be a member of AMATYC. It will be the 20th year of the award being given and only Florence Chambers, Southern Maine CC (2011), and the late Lois Martin, Massasoit CC (2007), have been bestowed this honor. Consider the gauntlet thrown. I know we have some great faculty members among us.

Also don't forget that the NEMATYC Affiliate Scholarship, which is free registration for the 2017 AMATYC Conference in Denver (Nov. 17-20), is chosen by raffle at our conference on the Cape. There is one entry for every member of your college that attends and the winning school chooses how to distribute the award, although we hope preference is given to first-time attendees. So again, get to the Cape if you can!

AMATYC Regional Vice President – continued

- As you well know, NEMATYC will hold its spring conference on April 29-30 at Cape Cod Community College. **Mary Kehoe Moynihan** and **Wanda Garner** are co-chairing this conference.
- The OCMA will hold their 2016 Conference at Fern Resort May 25-27 north of Toronto. More information can be found on the web at theocma.org<<http://theocma.org>>.

I want to congratulate **Phil Mahler** on receiving a Herb Gross Lifetime Achievement Award at the meeting in November.

The Executive Board will have a presence at all four of these meetings. I will attend NYSMATYC, MATYCONN, and NEMATYC and our new treasurer, David Tannor, will attend OCMA.

In the meantime, I will be working on a couple of projects. One will be learning how to send e-mails with a bit more flair. I have had some training, but will probably have to call on our Website Coordinator, George Hurlburt to get me over a couple of hurdles.

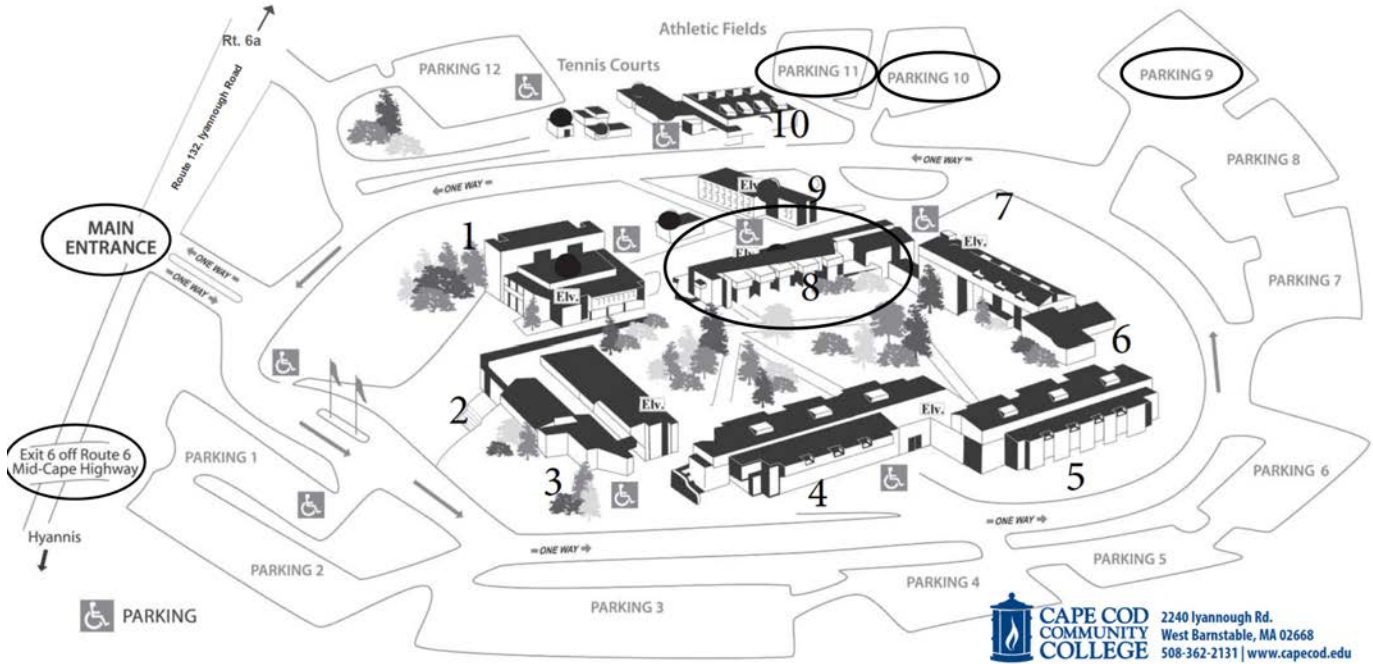
Finally, be on the lookout for an announcement from AMATYC on Traveling Workshops. Criteria is being developed that will permit affiliates and institutional members (at least) to apply for up to \$2000 to host a Traveling Workshop this year. The criteria have not been finalized so read them carefully when they come out.

For now, stay warm and if you have any questions or issues, don't hesitate to contact me.

Ernie

YOU are the **M** in STEM

CAMPUS MAP



- | | | | |
|------------------------|-----------------------|--|----------------------------|
| 1 Tilden Arts Center | 4 M. Wilkens Hall | 7 Science Bldg | 9 Lorusso Bldg |
| 2 Nickerson Admin Bldg | 5 North Bldg | 8 Grossman Commons (Registration) | 10 Life Fitness/Child Care |
| 3 Wilkens Library | 6 Lecture Halls A-B-C | | |

All Sequences Patterns are Not Created Equal

A colleague at Middlesex introduced me to the following sequence of digits. If you have not seen it before, please do not spend too much time on it, unless you have a mind to.

If you can't determine the next line after a while, there is a hint on page 12.

```

1
  1  1
    2  1
      1  2  1  1
        1  1  2  2  1
          3  1  2  2  1  1
            1  3  1  1  2  2  2  1
              1  1  1  3  2  1  3  2  1  1
  
```

What is the next line?

**Early Decision
Deadline
Sat Feb 13**

Call for Presenters

42nd Annual NEMATYC Meeting
 Cape Cod Community College – West Barnstable, MA
 Friday–Saturday, April 29-30, 2016

Easiest for everyone

R³ AT 4Cs T2

Early Decision Deadline: Saturday, February 13, 2016

EASIEST! Submit Your Proposal Online at <http://nematyc.info/PROPOSAL/>

Suggested themes: STEM starter programs, Data Science in the first two years, Vision Project course revisions, boot camps, using math in other disciplines, online college math labs/math tutoring, online/blended courses, Gateway Programs, teaching techniques and learning styles, cutting edge software/technology, modeling data, service learning, flipped classrooms, emporium classroom or other accelerated classrooms, and K-12 and college collaboration, to name a few.

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 needed.

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. Please attach on a separate sheet.

Biography: Please supply a 25 to 50 word biography of each speaker, on a separate sheet.

Equipment/technology needs:

If you need additional information or have any questions, please call Wanda Garner at 831.479.6329 or email her at wagarner@cabrillo.edu .

Proposal Early Decision Deadline Saturday, February 13.

Mail to: Wanda Garner, Dean Natural & Applied Sciences Division Cabrillo College 6500 Soquel Dr Aptos, CA 95003	Online submissions preferred. Email submissions accepted. Please include all of the above information. <p style="text-align: center;">Email to wagarner@cabrillo.edu</p> All submissions will be acknowledged by email.
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PLEASE REGISTER BY
APRIL 19 - SOONER IS
HELPFUL.

Conference Registration Form

New England Mathematical Association of Two Year Colleges

42nd Annual Meeting – Friday & Saturday, April 29-30, 2016

Cape Cod Community College, 2240 Iyannough Rd, West Barnstable, MA 02668

Mary Kehoe Moynihan, Wanda Garner, Co-chairs

Early Registration Discount Date: Tuesday April 19, 2016

Register Online at <http://nematyc.info/register>

NAME _____

Preferred Mailing Address _____

This address is
Home __ College __ _____

Phone _____ Email _____

Institution/Affiliation _____

Which activities do you plan to attend?

<input type="checkbox"/>	Friday Afternoon Sessions	<input type="checkbox"/>	Full-Time Faculty	\$70 (\$80 after 4/19)
<input type="checkbox"/>	Friday Evening Social *	<input type="checkbox"/>	Adjunct Faculty	\$40 (\$50 after 4/19)
<input type="checkbox"/>	Saturday Morning Sessions	<input type="checkbox"/>	Student	\$40 (\$50 after 4/19)
<input type="checkbox"/>	Saturday Lunch	<input type="checkbox"/>	Presenter	Fee waived (note 3)
<input type="checkbox"/>	Saturday Afternoon Sessions	<input type="checkbox"/>	Current ACCESS Fellow	Fee waived (note 2)

Registration Type (note 1)

* Sponsored by Pearson

- (1) Saturday lunch cannot be guaranteed for registrants after 4/19
- (2) Includes 1-year NEMATYC membership
- (3) First presenter only in multiple presenter sessions

Would you be willing to be a president? Yes No

PAYMENT

Make checks payable to NEMATYC and mail registrations to:

NEMATYC
 Attn: Ms Pat Phelan
 Math Dept
 Cape Cod Community College
 2240 Iyannough Road
 West Barnstable, MA 02668

Much Easier for Everybody

Register Online at
<http://nematyc.info/register>

Questions? Email Mary Moynihan at mmoynihan@capecod.edu or call Ms Pat Phelan at 508.362.2131x4363.

Conference Refund Policy: A refund of 100% of your advance 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. 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.

NOMINATING COMMITTEE REPORT

The NEMATYC Nominating Committee is pleased to present the following slate of officers for the elections to be held at the business meeting, Saturday, April 30, 2016, at the annual conference.

PRESIDENT (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. Bob holds an MS in Mathematics from Northeastern University. Very active at the national and regional level discussions involving developmental math programs and using technology, he has attended most of the last several annual AMATYC meetings, is a member of the Placement and Assessment and Developmental Math committees, and has recently served on a state level DHE Task Force to review and recommend developmental math policies. He has been on the NEMATYC Executive Board for two terms as an At-Large member and has presented at several NEMATYC meetings. He has designed and implemented several math education programs at MassBay CC.

VICE PRESIDENT (One-Year Term)

ALEX COTTER

Assistant Professor of Mathematics at Massasoit Community College. Alex received his BA in mathematics from Stonehill College and his MA in mathematics from Boston College. He is also a Massasoit Community College graduate. Alex has been involved in mathematics education at Massasoit since 2002, first as a tutor and now as faculty. He has been serving as chair of the Mathematics Department since 2014. Alex has been attending NEMATYC conferences since he was a student at Massasoit and has served as a Member-At-Large for the past two years.

TREASURER (Three-Year Term)

DAVID COX

David has taught mathematics at Southern New Hampshire University since 1990, after working as an actuary for an insurance company. He has co-chaired two NEMATYC conferences, and has been a presenter as well. David has served as NEMATYC treasurer since 2010. He received his Bachelor of Arts in Mathematics and Business Administration from Southwest Baptist University and his Master of Science in Mathematics from The University of Oklahoma. David received the SNHU Advisor of the Year award in 2011 for Radio SNHU.

SECRETARY (Two-Year Term)

JAMES MORGAN

What if Holyoke Community College had never had the chance to experience the dynamic and multifaceted teaching and social contributions of James Morgan? While this thought may not keep too many folks awake at night, James has managed to accomplish a thing or two during his decade of teaching mathematics in Western Massachusetts. James finished a Master of Arts in Mathematics from Central Connecticut State University in 2004 and shortly after that started teaching at HCC. Early on James was instrumental in bringing the Student Math League competition to HCC, and for many years was the campus moderator for the test. Currently he helps students prepare for both the fall and spring rounds. James has taught a very wide range of courses at HCC, and has experience in all modalities of course delivery. While each and every class is enjoyable, his favorites include statistics and mathematics for veterinary technicians. In fact, James co-authored the current text being used for HCC's veterinary technician math class.

James also loves fractals, and has found creative and not-so-subtle ways to impose these interesting and beautiful objects on students and faculty colleagues alike. James has been an unwavering advocate for STEM students and has regularly served as an advisor for the group of students comprising the science, engineering, and math club. He has taken students to visit other colleges as well as to attend talks and events in NYC, helped them build things like a hovercraft and a giant Menger Cube, and devise creative ways to engage other students in the disciplines related to math. James is an accomplished woodworker, a graduate of the New England School of Architectural Woodworking, and apprenticed in the specialty of wood finishing. James has had a radio show on HCC's college station for many years, and loves to play really old, not-so-old, and even occasionally some new music on the show. James has studied the bassoon since 1981, and has been able to perform with HCC's student ensembles as well as in faculty groups.

Nominations Report continued on next page

MEMBER-AT-LARGE (Two-Year Term, two to be elected)

JOHN MCCOLGAN

John Joseph McColgan II has been a full time member of the Roxbury Community College mathematics department since Fall 2011. He currently serves as Math Department Chair, MCCC Chapter President, and as Moderator for the Student Math League at RCC. In the past, he has coordinated the Math Clinic, served as a math tutor, and chaired the Scholarship & Honors committee at RCC. Prior to becoming full time, he taught math as an adjunct for 1.5 years at both RCC and Bay State College in Boston. He has a B.S. in Physics and Mathematics from the University of Massachusetts Amherst and an M.A. in Mathematics from Boston College.

AARON LEVIN

Aaron Levin is Professor of Mathematics at Holyoke Community College. He has a Bachelor of Arts in Theatre from the University of Vermont and a Master of Arts in Mathematics from San Francisco State University. He teaches all courses, but statistics is his favorite. He has completed 13 marathons, including the 100th Boston Marathon in 1996. He has received the award for outstanding student club advisor at HCC. Aaron believes that Everyone Can Succeed.

Prior to the election, nominations will also be welcomed and accepted from the floor.

Meredith Watts, Nominating Committee Chair

Applications are Everywhere.

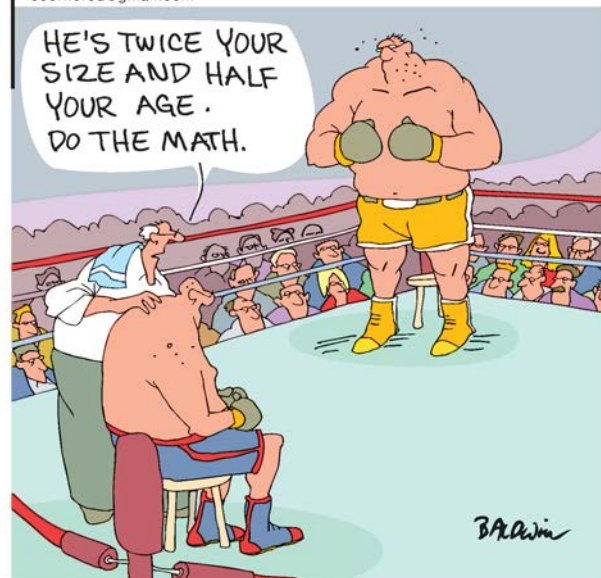
Since $2 \times \frac{1}{2} = 1$, this must be an even match.

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Cornered

by Mike Baldwin

12-16 © 2015 Mike Baldwin/Dist. by Universal Uclick www.cornered.com
ccornered@gmail.com



Numbers were never Bruiser's strong point.

Hint for All Sequences Patterns are Not Created Equal: The next line starts “3 1 ... “ .

If that doesn't do it email the editor for the solution.

The NEMATYC STUDENT MATH LEAGUE RECOGNITION AWARD PROGRAM

by Dave Henry, NEMATYC Student Mathematics League Coordinator

Recognition Award Program

The purpose of the NEMATYC Student Mathematics League Recognition Awards Program is to foster extracurricular mathematics learning opportunities for students through participation in AMATYC's Student Math League (SML). The student with the highest combined score of both the Fall and Spring tests at each NEMATYC school receives a \$100 award.

The top school among NEMATYC members receives the Lois A. Martin NEMATYC Student Mathematics League Award. Last year, the Award was won by New Hampshire Technical Institute's Concord campus.

Highlights and History

Middlesex's Zixian Qiu is currently in 11th place overall in the entire nation (1259 students) with a score of 32.0 and is only six points behind first-round, top-scorer Handong Wang (West Valley). Remarkably, Bunker Hill's Minwoo

Yoo was #1 in the nation last year. Let's hope Zixian can make up the difference and give NEMATYC the bragging rights two years in a row.

Middlesex is currently 60th overall as a team. NHTI - Concord (96th) is also in the top 100 out of the 174 schools that participated in the Fall.

Join the Fun

The second test of the 2015-16 competition will be given from Friday, February 12th through Saturday, March 5th. If your college does not have a team, please consider joining the spirited rivalry among NEMATYC schools. Your involvement can be as simple as just administering the tests. You might include practice sessions. Or, you might even advise a campus mathematics club. Your students will thank you for giving them any opportunity to compete. It's not too late to join the fun! Visit amatyc.org, or contact John McColgan (jmccolgan@rec.mass.edu) for more information.

AMATYC 2015-2016 Northeast Region Student Math League Standings After First Round

Students in Top 20 of Northeast Region

Rank	Student	College	Score
1	Maciej Wlodek	Suffolk County (NY)	34.0
2	Zixian Qiu	Middlesex (MA)	32.0
3	Zhengping Wang	Queensborough (NY)	23.0
4	Haixia Wang	Queensborough (NY)	20.0
5	Pakigy Taladhar	LaGuardia (NY)	19.0
5	Tao Hong	Queensborough (NY)	19.0
7	Christopher Tayoor	NHTI - Concord (NH)	18.0
7	Pan Yuen Lau	LaGuardia (NY)	18.0
9	Gunnar Nichols	NHTI - Concord (NH)	17.0
9	Tara Brennan	Massasoit (MA)	17.0
9	Ed Beaupre	Thompson School (NH)	17.0
12	Kyung Ok Han	Queensborough (NY)	16.0
12	Juan Arcenas	Queensborough (NY)	16.0
14	Daniel Wynne	Suffolk County (NY)	15.5
14	Kristen Campo	Suffolk County (NY)	15.5
14	Tyler Barrette	Cape Cod (MA)	15.5
14	Tommy Murphy	Monroe (NY)	15.5
18	Malcom Weeks	Suffolk (NY)	15.0
18	Yitong Liu	Monroe (NY)	15.0
20	Brett Molhan	Middlesex (MA)	14.5

Teams in Top 20 of Northeast Region

Rank	Team	Score
1	Queensborough (NY)	94.0
1	Suffolk County (NY)	94.0
3	Middlesex (MA)	77.5
4	LaGuardia (NY)	73.0
5	Monroe (NY)	69.5
6	NHTI - Concord (NH)	61.0
7	Massasoit (MA)	59.5
8	Greenfield (MA)	56.0
9	Nassau (MA)	53.5
10	Springfield Tech (MA)	52.0
11	Cape Cod (MA)	46.5
12	Holyoke (MA)	42.0
13	Manchester (CT)	41.0
14	North Shore (MA)	37.5
15	Thompson School (NH)	33.5
16	Bristol (MA)	24.0
17	Mount Wachusett (MA)	18.5
18	Roxbury (MA)	7.5

NEWS FROM THE CAMPUSES

EMERSON COLLEGE

Eiki Satake has published a couple of scholastic articles, entitled “An Alternative teaching method of Conditional probability and Bayes' rule: An application of the truth table” (Teaching Statistics, spring issue, 2015), and “An extended validity study: Attitudes toward statistics among Japanese College students” (Journal of Mathematics Education at Teachers College, Columbia University, winter issue, 2015).

QUINSIGAMOND COMMUNITY COLLEGE

Denise Robichaud reports GPA "Experiment": The GPA Experiment for placing students into math courses continues. The GPA Experiment is a pilot program requested by the Massachusetts Board of Higher Education of taking students with a 2.4/2.7 GPA and placing them directly into college-level mathematics. The math department has requested data on success rates for past semesters of the GPA Experiment.

Beginning Algebra to Statistics Pilot: The pilot program for placing students into Statistics continues. Pilot students go directly from Beginning Algebra into Statistics, instead of taking Intermediate Algebra before Statistics. The only students that were “invited” into the pilot were students that passed Beginning Algebra.

QuEST Building: QCC's new QuEST Building, that will focus on Engineering, Science and Technology, had its grand opening on Tuesday, January 19.

IN THE NEWS

The January edition of the AMATYC NEWS reports that AMATYC has formed four “ANets” (AMATYC Networks). The new ANets will be Division/Department Leadership, Adjunct Faculty Issues, International Mathematics, and Mathematics for Liberal Arts. Two of the four appointed ANet Leaders are from our area! In the picture below, second from left, is **Judy King**. And to her left is **Steve Krevisky**. (on the left is Christine Mirbaha, and on the right Fary Sami).



Judy King leads the Adjunct Faculty Issues ANet. Judy has been an adjunct for nearly 20 years teaching developmental math students at NHTI-Concord (NH)'s CC, Judy's search for ways to help her students better understand fundamentals has taken her from a bachelor's (Keene State College, NH) to a master's (Boston University) and beyond. She has been involved in NEMATYC as a presenter, Executive Committee member-at-large, vice president and conference chair, in AMATYC as delegate, presider, round table co-host, adjunct subcommittee co-chair, in ITCM3 in Istanbul as listener and presenter, and in TSM in Oundle, England, as learner.

Steve Krevisky leads the International Mathematics ANet. Professor of Mathematics at Middlesex CC, in Middletown, CT, since 1985. He is a frequent presenter at international mathematics and statistics conferences, such as ICME and ICOTS and has been an active participant in past ICME Discussion Groups on Two-year colleges and other Tertiary institutions. He has also been a frequent presenter, presider, and delegate to AMATYC conferences. He is a past president of both the MATYCONN and NEMATYC affiliates, and is one of the system coordinators of the Connecticut annual student math contest. In addition, in Spring 2013, Steve received the Middlesex CC Educational Excellence and Distinguished Service Award. This enabled him to go to a conference in Mozambique and give workshops for teachers in Nigeria in summer 2014.

The same issue of the AMATYC NEWS has pictures of NEMATYC region individuals and individuals connected to NEMATYC. On page 1 you will find current Northeast Region Vice President **Ernie Danforth**. Our former Northeast Regional Vice President **Jane Tanner** became AMATYC President on January 1 and she is featured on page 2. We wish her well! Yours truly, **Phil Mahler**, is on page 4. **Judy King** and **Steve Krevisky** (see above) are on page 5. You'll find **Roger Loiseau** of Connecticut on page 11. On page 12 you will find **Aliza Miller** (Mount Wachusett CC) pictured in Cohort 11 of Project ACCESS, and in Cohort 12, **Aisha Arroyo**, Massasoit CC.

Memories of AMATYC 2015 – New Orleans, LA



Bourbon Street, early evening



Oak Alley Plantation outside of New Orleans



Many of the NEMATYC members who attended AMATYC 2015.

You can register for the spring conference at
<http://nematyc.info/register>

Great Minds Think Alike

It so happens that **President Henry** mentions AMATYC's Project ACCESS in his message for this newsletter (page 1). I (editor) had already been preparing a report on the NEMATYC members who have participated in Project ACCESS .

I think we can be proud to say that we had a NEMATYC member in the first cohort in 2004-2005. I've listed all NEMATYC members who have participated in Project ACCESS below, of course hoping I didn't miss anyone. I have a special affection for this program, having been AMATYC President-elect when the details were worked out at a meeting at the headquarters of the Mathematical Association of America in Washington, D.C.

Over the years I featured many of the participants in this newsletter. Below are some remarks, hopefully accurate, about each one, and the newsletter issue(s), if any, that featured or named them. I am sorry that not all were featured, it wasn't intentional.

Cohort 1 – 2004-2005

Anne O'Shea, North Shore CC

Anne has served NEMATYC many ways, including At-Large Executive Committee member, Conference Co-Chair in 2013, Newsletter Production Editor, and Vice President. (Fall 2004, Fall 2005)

Cohort 2 – 2005-2006

Curtis Mitchell, Greenfield CC

Curtis served as a NEMATYC At-Large Executive Committee member before moving on to Kirkwood Community College in Iowa. The IMATYC website says he was its President in 2014. I see Curtis at almost every AMATYC meeting. (Fall 2005)

Cohort 3 – 2006-2007

Marianne Rosato, Massasoit CC

Marianne helped NEMATYC when it hosted AMATYC in Boston in 2010 and has been active in her department at Massasoit. (Fall 2005)

Amy Adams, Benjamin Franklin Institute of Technology

Amy was active locally before moving on; she is currently on the faculty at the University of Tulsa. (Fall 2007)

James Giumarra, Benjamin Franklin Institute of Technology

James is currently the Chair of Electronics Technology Department at Benjamin Franklin Institute of Technology. (Spring 2008)

Cohort 4 – 2007-2008

Marsha Pease, North Shore CC

Marsha has served as NEMATYC Secretary for several terms, and was NEMATYC Conference Co-Chair in 2013. She has also presented at NEMATYC conferences. (Spring 2008)

Cohort 5 – 2008-2009

Mary Sullivan, Massasoit CC

Mary is the current NEMATYC Webmaster, has served as At-Large Executive Committee member, and has presented at NEMATYC conferences. Mary is currently at Cape Cod CC.

Meredith Watts, MassBay CC

Meredith has served as NEMATYC At-Large Executive Committee member, Conference Chair in 2010, Conference Exhibitor Chair, Vice President and President.

Cohort 6 – 2009-2010

David Henry, Bristol CC

Dave has presented at NEMATYC conferences, served as a NEMATYC At-Large Executive Committee member, Student Math League Awards Coordinator, Social Media Director, Vice President and is the current NEMATYC President.

Cohort 8 – 2011-2012

Alice Wilson, Bristol CC

Alice has been an active participant in NEMATYC and is currently a NEMATYC At-Large Executive Committee member. (Spring 2012)

Cohort 11 – 2014-2015

Aliza Miller, Mt Wachusett CC

Aliza is currently active both in NEMATYC and AMATYC. (Fall 2014, Spring 2015)

Cohort 12 – 2015-2016

Aisha Arroyo, Massasoit CC

Aisha has been active in AMATYC and NEMATYC. In 2013 she tied for second place in the Faculty Mathematics League at the AMATYC meeting in Anaheim. In 2014, in Nashville, she tied for first place. And the tie was with Curtis Mitchell (see cohort 2 above)! (Fall 2014)

JOIN NEMATYC

You are a member if you attended the Spring conference last year at Quinsigamond Community College, or if you mailed in your \$10 membership fee, or you attended the Fall dinner meeting, or if you will be attending this spring's conference.

Not a member?

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



Yours truly, **Philip Mahler**, was proud and grateful to be awarded the second Herb Gross Lifetime Achievement Award at the New Orleans AMATYC meeting. Author Patrick McKeague also received the award at the meeting. Patrick has been a long-time contributor to AMATYC and the AMATYC Foundation.

President Nancy Sattler (to my right in the picture) cited my service to AMATYC as Local Arrangements Chair for the 1993 AMATYC meeting in Boston (our own **Jack Keating** was conference Co-chair), Regional Vice President, President Elect, President (2001-2003), and Past President, second webmaster, and lately writing software for the AMATYC website, migrating the Student Math League software to the AMATYC site, proofing newsletters since I left the board and serving on several task forces over the years. A lot of work but all of this gave me opportunities to participate in national dialogs and meet wonderful active colleagues from the U.S. and Canada.

Obviously this made the New Orleans conference an extra special one for me.



AMATYC Presidential Student Scholarship

Each AMATYC affiliate may submit one nomination for a \$1,000 scholarship, which is awarded by a drawing (44 affiliates, but not everyone nominates) at the AMATYC conference. Criteria: 1. Nominating institution must have one active member of AMATYC; 2. Minimum student GPA 3.0; 3. Nominated student must be majoring in math (at next school) and enrolled full-time at the nominating institution during the Spring semester.

Example: Joe Smith is at Bristol CC this spring and will be transferring to Bridgewater State to study Mathematics and has a GPA of 3.15.

For more information or questions, contact David Henry (david.henry@bristolcc.edu).

NEMATYC EXECUTIVE COMMITTEE

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Appointed NEMATYC Positions

Conference Co-Chair Mary Kehoe Moynihan Cape Cod CC MMoynihan@capecod.edu 508.362.2131 x4471 15-16	Past Conference Co-Chair Denise Robichaud Quinsigamond CC DRobichaud@qcc.mass.edu 508.854.4373 15-16	Membership Chair Maria Arambel Middlesex CC ArambelM@middlesex.mass.edu 781.656.3126 12-15
Conference Co-Chair Wanda Garner Cabrillo College wagarner@cabrillo.edu 831.479.6329 15-16	Past Conference Co-Chair Steve Zona Quinsigamond CC SteveZ@qcc.mass.edu 508.854.4408 15-16	Student Math League Crdnatr John McColgan Roxbury CC JMcColgan@rcc.mass.edu (617)541-5317x5210 x16-18
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Conference Exhibitor Chair – vacant		
AMATYC Regional Vice President Ernie Danforth , Corning CC, 1 Academic Dr, Corning, NY 14830 danforth_e @corning-cc.edu		



The NEMATYC Newsletter is issued twice a year, in the Fall and in the Spring. Suggestions and submissions may be directed to the president or the editor.

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