MATHEMATICAL
ASSOCIATION OF
TWO-YEAR
COLLEGES OF
CONNECTICUT



Inside this issue:

New Faculty and 3 Staff

Annual Math 5
Contest

Steve Krevinsky's 8

Great Ideas 9

Upcoming 10
Conferences

From the President

As I begin my term as MATYCONN President, I can't help but reflect upon my years as a member. As many of us did, I began as an adjunct faculty member and the main reason for joining was to network with other community college math faculty. Certainly, the organization provides that network, but more importantly is how those network connections over time became a real support system in the odyssey of teaching mathematics at the community college. As we all know, teaching can be a lonely job when you're in the classroom. Talking with other faculty who are experiencing similar challenges in reaching students across Connecticut, mitigates that loneliness and provides inspiration on the difference that can be made with student's mindsets about mathematics. MATYCONN has provided the structure to make these vital and enduring connections beyond the classroom and continue conversations over semesters and over years. Although it is so hard to find time in our busy schedule and sometimes traveling to MATYCONN meetings can be challenging, the effort has been worthwhile, as it has provided me a dedicated block of time to concentrate on current issues and continue those important conversations. I welcome your ideas and participation to make your MATYCONN membership meaningful and supportive to your career. Please stay involved in the organization and encourage other faculty to do the same!

Janet Zupkus

A message from...

Ernie Danforth AMATYC Northeast Vice President

What a beautiful September we are having! It is warm for September, but since it is September the cold will come soon enough and I know you all remember last winter, so ... no complaints.

First and foremost I want to let you know that I am looking forward to visiting as many of you as I can at the Fall MATYCONN meeting at Northwest Connecticut Community College on the 23rd of October.

By the time you read this, the AMATYC elections will be over. I am running again for NE Region VP, but I will not be running again. The election cycle begins in the fall of 2016 so it is not too early to begin thinking about running for an AMATYC national office including NE VP. If you have some interest and have any questions about the positions, I would be glad to talk to you about them. Contact me by e-mail danforth e@corning-cc.edu.

Finally I want to encourage you to consider attending the 41st Annual AMATYC Conference in New Orleans November 19-22. If you have never attended an AMATYC Conference, you should seriously consider it. You will get to hear the leading in mathematics education for the first two years of college and to meet colleagues from all over the country. It is a chance to learn about what is on the cutting edge and a chance to pick the brains of these leaders. One thing that I know from person experience over my previous 26 years of attending this conference is that everyone is willing to share and everyone is willing to listen. This together with the location makes the conference a can't-miss opportunity. Hope to see you all there as we Jazz It UP!



2015-2016 Officers and Executive Committee

Janet Zupkus, President

Naugatuck Valley Community College (203) 596-8704

JZupkus@nvcc.commnet.edu

Harry Burt, Vice President

Naugatuck Valley Community College (203) 596-2147

HBurt@nvcc.commnet.edu

Helen Cloherty, Secretary

Norwalk Community College (203) 857-7280 HCloherty@norwalk.edu

Katie Lozo, Treasurer

Naugatuck Valley Community College (203) 596-2152 <u>KLozo@nvcc.commnet.edu</u>

Jana Sime, Membership Chair

Manchester Community College (860) 512-2732

JSime@mcc.commnet.edu

Michelle Breaker, Newsletter Editor

Gateway Community College (203) 285-2119

MBreaker@gatewayct.edu

Amanda Sweeney, Newsletter Editor

Gateway Community College (203) 285-2551

<u>ASweeney@gatewayct.edu</u>

Steve Krevisky Math Contest Coordinator

Middlesex Community College (860) 343-5792 SKrevisky@mxcc.commnet.edu

Nick Stugard

Math Contest Coordinator

Tunxis Community College (860) 255-3620 NStugard@txcc.commnet.edu

Larisa Alikhanova, Scholarship Chair

Three Rivers Community College (860) 885-2375 LAlikhanova@trcc.commnet.edu

Rachael Schettenhelm Immediate Past President

Gateway Community College (203) 285-2191 RSchettenhelm@gwcc.commnet.edu

Kegan Samuel, Webmaster

Naugatuck Valley Community College (203) 575-8232 KSamuel@nvcc.commnet.edu

2015-2016 Campus Contacts

Asnuntuck

Teresa Foley (860) 253-3137 TFoley@acc.commnet.edu

Capital

Kathy Herron (860) 906-5219 KHerron@ccc.commnet.edu

Gateway

Rachael Schettenhelm (203)285-2191 RSchettenhelm@gwcc.commnet.edu

Housatonic

Mark Leach (203) 332-5230 MLeach@hcc.commnet.edu

Manchester

Jana Sime (860) 512-2732 JSime@mcc.commnet.edu

Middlesex

Pamela Frost (860) 343-5793 PFrost@mxcc.commnet.edu

Naugatuck Valley

Harry Burt (203) 596-2147 HBurt@nvcc.commnet.edu

Northwestern

Karen Collin (860) 738-6336 KCollin@nwcc.commnet.edu

Norwalk

Nancy Fleming (203) 857 3302 NFleming1@norwalk.edu

Quinebaug Valley

Joachim Bullacher (860) 932-4067 JBullacher@qvcc.commnet.edu

Three Rivers

Larisa Alikhanova (860) 885-2375 LAlikhanova@trcc.commnet.edu

Tunxis

Susan Ricciuti (860) 255-3707 SRicciuti@txcc.commnet.edu

New Faculty and Staff

Middlesex Community College welcomes two new full-time faculty!

In the fall of 2015, **Leonel J. Carmona** joined **Middlesex Community College** as a full time faculty member in the Mathematics Department. The growth and commitment that Middlesex Community College has undergone to become the college of its diverse community was a factor that prompted his choice. Leonel's teaching experiences at Capital, as well as his bilingual ability, provide him the opportunity to successfully work with students from urban, non-traditional, multicultural backgrounds. Moreover, his fluency in Spanish enables him to conduct lectures, classes, presentations and business in both English and Spanish.

The foresight of Middlesex Community College also motivated him to become a faculty member. Its vision i.e. the promotion of additional STEM courses parallels his pedagogic philosophy. He asserts that the various responsibilities, positions, and teaching practices that



he has had at Capital Community College for the past twenty five years have prepared him to embrace new challenges. His teaching experience includes an extensive variety of college level instruction in the areas of mathematics (from developmental to upper level credit courses). Furthermore, his experience includes teaching courses in physics, chemistry, electrical engineering and computer engineering. Thus, the engineering pathway captured his interest.

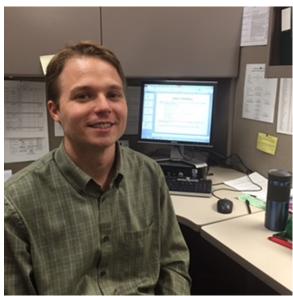
Leonel, not only served on multifarious committees at Capital (presiding over the Application to the Assessment of Mathematics the last two years); but also was devoted to the advisement of students every semester since its inception. He has shared that his tenure at Capital Community College was very rewarding and that working alongside excellent colleagues has helped him to grow and develop in his field. Now, Leonel is looking forward to new experiences and working with his new colleagues at Middlesex Community College. He is already involved in the following curricular and extra-curricular activities: tutoring in the Academic Success Center, the Robotics Club and advisement of students.

Leonel has an Associate Degree in Liberal Arts from Capital Community College, a Bachelor of Sciences in Engineering – with concentration in Electrical Engineering from Trinity College, and a Master of Arts in Mathematics from Central Connecticut State University.

Leonel was born in Don Matias, Colombia and lived in the city of Medellin, Colombia until he moved to the United States. He engages in various sport activities: tennis, basketball, bicycling, hiking and jogging.

New Faculty and Staff cont.

Middlesex Community College



Joseph Murfin is new full-time faculty member at Middlesex Community College, where he serves as an instructor of mathematics. Though originally from Alabama, Joseph recently moved to Connecticut from Madison, Wisconsin, where he completed graduate work at the University of Wisconsin. He has over eight years of mathematics teaching experience, serving as a graduate teaching assistant at Auburn University and the University of Wisconsin-Madison and as a part-time faculty member at Madison College and Lakeland College. In addition to mathematics, Joseph has an extensive background in music performance and is an active musician and composer. Other areas of study and interest include the Spanish language and methods of

improving efficiency in academic and musical learning. Joseph holds a master's degree in applied mathematics from Auburn University and a Doctorate of Musical Arts in percussion performance from the University of Wisconsin-Madison.

Naugatuck Valley Community College

Emily Hepworth is a new math instructor at **Naugatuck Valley Community College** this fall. Her prior teaching experience includes teaching a high school pre-calculus class for homeschooled teenagers and teaching calculus and statistics part-time at SUNY Albany while earning her Ph.D there in mathematics (research field: topology). Emily grew up in New York's Hudson Valley, and that proximity to the Catskill Mountains has instilled in her a love of hiking. She is also an avid reader of books and a lover of things that grow. She lives with her husband, Nathan, and their tarantulas and scorpions in Waterbury.

Quinebaug Valley Community College

Debbie Myers joined **Quinebaug Valley Community College** in January to teach transitional and intensive math courses. Debbie holds a Master's Degree in Teaching Mathematics from Providence College, a B.S. in Electrical Engineering from the University of Pittsburgh, and is pursuing a Certificate in Instructional Design from the University of Wisconsin at Stout. Debbie had been an adjunct at QVCC before coming here full-time.

25th Annual Miguel Garcia Math Contest

The 25th Annual Miguel Garcia Math Contest, sponsored by MATYCONN, took place in April 2015. Eleven campuses participated and the top scorers were:

First Place: Carlos Velarde Diaz (Capital CC) - 40/40 points

Tied for Second Place: Bridget McDonald and Matthew Ignal (Middlesex CC) - 39/40 points

Third Place: Yuhao Yao (Tunxis CC) - 38/40 points

25th Annual Miguel Garcia Math Contest Connecticut Community Colleges April 2014

Section 1: Each question is worth 1 point.

1. Compute the value of: $\left[(10-3)^0 + \left(\frac{27}{2}\right) \left(\frac{2}{3}\right)^3 \right]^2$

Answer: 25

2. Find all positive integer solutions for the equation: $3x^3 = 61x^2 - 20x$

Answer: x = 20

3. The number B is 25% more than the number A. The number C is 20% more than B. The number D is x% less than C. For what value of X will D = A?

Answer: x = 100/3

4. Given: $-\frac{3}{2}y + 5x^2 = 8$ Find y when x = 2.

Answer: y = 8

5. What number is 1/8 % of 20,000?

Answer: 25

6. Brian McCann hit 6 less than twice as many home runs as Miguel Cabrera. Cabrera also hit 19 fewer home runs than McCann. How many home runs did McCann hit?

Answer: 44 home runs!

Page 6

Section 2: Each question is worth 2 points.

7. An isosceles right triangle has $Area = 144 ft^2$. What is the length of the hypotenuse?

Answer: 24 feet

8. An integer plus its reciprocal is 25.04. What is the integer?

Answer: 25

9. Find a number n, such that the line determined by the points (n,4) and (2,-1) is perpendicular to the line y = 6x - 7.

Answer: n = -28

10. You rode your motorcycle 20 mph one way and then returned the same distance travelling 25 mph. The round trip took 1 hour and 48 minutes. How many miles did you ride one way?

Answer: 20 miles

11. Given: x + 3y = 1

$$x - y = 3z - 4$$

$$2z = x - 5$$

What is the value of x + y + z?

Answer: x + y + z = 76

12. An inlet pipe can fill Blake's pool in *4 hours*, while its outlet pipe can empty it in *6 hours*. Blake needs to fill his empty pool, but in his haste to surf the internet, he left both pipes open. How long did it take to fill the pool?

Answer: 12 hours

13. Given $y = 31 - 12x + 3x^2$, what is the minimum value for y?

Answer: y = 19

14. Let A = n(3n - 5). For what integer value of n will A = 1100?

Answer: N = 20

Section 3: Each question is worth 3 points.

15. The sum of two numbers is 25. The sum of their squares is 325. Find the positive difference between these two numbers.

Answer: 5

16. A parabolic function f(x) is concave down, with a vertex of (3,13) and a y-intercept of (0,-5). Computer the value f(5).

Answer: f(5) = 5

17. Find the point on the line y = 2x + 3 that is closest to the origin.

Answer: (-6/5, 3/5)

18. Amanda collected some duck eggs and took one third of them. Beth took one third of the remaining eggs. Clarissa took one third of the remaining eggs. Debbie took one third of the remaining eggs. Eli took all of the remaining eggs. Everyone got at least one egg and no eggs were broken. What is the smallest number of eggs that Eli could have gotten?

Answer: 16

- 19. Amy, John, and Eric live in 3 different towns and have 3 different occupations.
 - A. John visited the sociologist in Cairo.
 - B. Amy visited the mathematician in Tokyo.
 - C. Eric emailed the physicist in Shanghai.
 - D. John faxed the lab results to the mathematician.

What town does John live in?

Answer: Shanghai

20. When $x = a + \frac{1}{a}$ and $a = \frac{1}{\sqrt{2} - 1}$ find the value of $a^2 + ax$.

Answer: $7 + 4\sqrt{2}$

Steve Krevinsky's MILE Presentation —Spring 2015



On March 27, 2015 Steve Krevisky gave a talk to the MILE Group (**Middlesex Institute for Lifelong Education**) at MXCC. His presentation highlighted the mathematics in baseball. Steve gave a brief synopsis of the history of the Brooklyn Dodgers for years ending in 5. Highlights included:

1905-All games of the world series were shut outs

1915-Babe Ruth's Red Sox defeated the Phillies in the world series

1935- The Tigers won their first ever series title

1955- The Dodger beat the Yankees in game 7!

2005-The White Sox won their first World Series

After the historical tour, Steve went on to explain Batting Averages, BA,

BA = #H/#AB (the number of hits divided by the number of at bats)

These are rounded, sometimes with controversy, to three decimal places.

After Batting Averages, he told how to compute the On-Base Average, OBA. This takes into account walks (W), and is found:

OBA = [#H + #W] / [#AB + W]

Lastly, Pitcher's Earned Run Average, ERA, is given by:

ERA= [# earned runs allowed * 9]/ IP

where IP is innings pitched. Steve went on to clarify that this is a relative average, as one would compare these stats to the league stats.

Sounds like a fun time for the seniors! After all, who wouldn't love a stroll down memory lane loaded with baseball and math!



Great Ideas Forum

Featuring Naugatuck Valley's Math Department

ELEVATE ENGAGEMENT IN THE CLASSROOM



Have you ever convinced yourself that the students in your class understand a new concept as a result of their nods, smiles or on the basis of a couple of vocal responses? At NVCC, instructors can easily confirm or dispel their belief, by using classroom sets of I-Clickers. A multiple choice question can be displayed using any media including the chalkboard, paper on the document camera, a word document or a power point slide, just to name a few. Students click in their answer and the instructor can choose to display a histogram of the results in real time or after polling is completed. Student answers for the semester can be stored and used for grading, through a one-time polling procedure that assigns a particular clicker to each student. The technology is extremely user friendly and the immediate class feedback can initiate meaningful discussion to clarify student miscon-

ceptions. This technology also facilitates active learning when students are given the opportunity to process the problem themselves and then get and give valuable insights to their peer.

In the **NVCC Math department**, we initially purchased a single classroom set of 30 clickers which includes the instructor controller and a rolling case. This set was shared among interested faculty for particular classes. We recently obtained additional funding and now the department has ten sets. Each complete set is approximately \$1200. More information on the technology and contact information for obtaining a quote can be found at the I-Clicker website: www.iclicker.com.



Upcoming Conferences

41st **AMATYC Annual Conference,** Jazz It Up, New Orleans, LA November 19-22, 2016. http://www.amatyc.org/?2015ConfHome

NES/MAA Fall 2105 Meeting, Gordon College, Wenham, MA, November 20-21, 2015. http://sections.maa.org/northeastern/meetings.html

2016 Joint Mathematics Meetings: 122nd Annual Meeting of the American Mathematical Society (AMS), 99th Meeting of the Mathematical Association of America (MAA), Washington State Convention Center, Seattle, WA January 6-9, 2016. http://jointmathematicsmeetings.org/jmm

Twentieth Annual AMTE (Association of Mathematics Teacher Educators) Conference, Hotel Irvine Jamboree Center, Irvine, CA, January 28-30, 2016. http://amte.net/conferences/conf2016

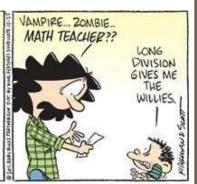
2016 T³ International Conference (Teachers Teaching with Technology International Conference), Orlando World Center Marriott, Orlando, FL, February 26-28, 2016. https://education.ti.com/en/us/pd/international/about

28th Annual International Conference on Technology in Collegiate Mathematics (ICTCM), The Atlanta Marriott Marquis, Atlanta, GA, March 10-13, 2016. http://www.pearsonhighered.com/ictcm/

40th Annual NADE (National Association of Developmental Education) Conference, Anaheim, CA, March 16-19, 2016. http://www.nade2016.net/







On the web:

matyconn.matyc.org/

©Baby Blues Partnership

Newsletter Editors:

Michelle Moser Breaker

Associate Professor of Mathematics Gateway Community College

Amanda Sweeney

Assistant Professor of Mathematics Gateway Community College