

## Mathematics Association of Two Year Colleges of New Jersey

### Fall Newsletter, 2017

Meimee Persau, Editor

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## The President's Message

Dear Colleagues,

Welcome back to the Fall 2017 semester. While you are all getting back in the swing of things, it's safe to say we are planning a great conference for the October 7th Mathematics Association of Two Year Colleges at Raritan Valley Community College. We have a wide variety of presentations to choose from, all of which help keep our minds active about how to evolve and learn from one another as professional educators. These topics include but are not limited to information about creating a successful



study abroad course for STEM students, mathematics of nutrition, open educational resources and much more. See inside for more details on these presentations.

I hope you will join us for a productive and information day. I will look forward to seeing you all at Raritan Valley Community College on October 7<sup>th</sup>.

Sincerely,

Sally Mulvey, President-MATYCNJ <a href="mailto:smulvey@brookdalecc.edu">smulvey@brookdalecc.edu</a> <a href="https://www.brookdalecc.edu/stem-institute/mathematics/matycnj/">https://www.brookdalecc.edu/stem-institute/mathematics/matycnj/</a>

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# The Mathematics Association of Two-Year Colleges of New Jersey



**FALL 2017 Meeting** 

Saturday, October 7, 2017



# Raritan Valley Community College

118 Lamington Road Branchburg, NJ 08876

Location: Conference Center, Building #11

# The Mathematics Association of Two-Year Colleges of New Jersey AGENDA for FALL 2017 Meeting

TIME	SESSION	PRESENTER	LOCATION
9:00 - 9:30 am	Registration/Breakfast Welcome Address to MATYCNJ Fall Meeting	<b>Deborah Preston, Provost,</b> Raritan Valley Community College	Conference Rooms A, B, C
9:30 - 10:45 am	Catch Them Before They Fall	Brien Dunn, Keynote Speaker Louisiana Delta Community College	Conference Rooms A, B, C
10:45 - 11:00 am	Exhibits	Publishers	tbd
11:00 - 12:00 pm	A Statistical Study: Which Procedure is More Painful: one or multiple incisions?	Hanli Huang & Mike Nolan, Brookdale Community College	Conference Room ATTC-C
	The Nutrition Equation	Greg Bullock, Raritan Valley Community College	S-014
	Commercial Presentation: Latest Updates in MyLab Math/Stats	Diane Hollister Pearson Implementation Team	Computer Room ATTC-100
	Building Mathematics Courses using the Backward Design Process	Jonathan Weisbrod, Rowan College at Burlington Cnty and Kathleen Shay, Middlesex County College	Conference Room ATTC-101
12:00 - 12:45 pm	Business Meeting/ Lunch Break (sponsored by Pearson)	Sally Mulvey, President MATYCNJ	Conference Rooms A, B, C
12:45 - 1:00 pm	Exhibits	Publishers	tbd
1:00 - 2:00 pm	The Impact of an Elementary Algebra Course on Student Success in College Level Math and Persistence in College	Lori Austin, Raritan Valley Community College	Conference Room ATTC-C
	Engaging Students in STEM Study Abroad Courses	Arminda Wey, Brookdale Community College	S-014
	Commercial Presentation: MindTap Math Foundation	Brien Dunn, Louisiana Delta Community College	Computer Room ATTC-100
	New Online Educational Resource Curriculum	Linda Wang & Nathalie Darden, Brookdale Community College	Conference Room ATTC-101

#### CATCH THEM BEFORE THEY FALL - Brien Dunn, Louisiana Delta Community College

Over the last few decades, we've seen numerous initiatives to improve Developmental Education outcomes at Colleges all over America. We absolutely know that Developmental instruction demands a fundamentally different approach from Traditional. Fueled by ever-present retention concerns, understanding the evolving needs of this unique group of learners requires departments and faculty willing to accept change as the new norm. Tired of teaching students who seem utterly uninterested and unreachable? Are you having endless conversations with colleagues about the old ways of doing things no longer working and wondering what to do about it? Simply put - this generation has different and ever-changing communication and learning expectations. We must adapt, fully aware the process will be challenging. The lecture-only format just doesn't work for the majority of Developmental Learners. So how do we engage and retain these students? From Secondary to College, for the last twenty years I've had a front row seat to these changes, and in my role as QEP (SACS) Director of Louisiana Delta Community College, part of the Louisiana Community Technical College System, I've led systemic Developmental Education change at our institution – and we're seeing results! My speech entitled, 'Catch Them Before They Fall' begins by recognizing current national realities and breaks-down demographic and unique Developmental Learner characteristics. I explain, and often demonstrate, the benefits of integrating new gamification software tools and Kahoots, how to ignite effective LMS Discussions, and explain the critical need for consistent and persistent reminder-motivating communication strategies. We'll discuss static and digital OER/LMS integration, perfecting your 'Triad', and explain E-Tech 'Weeding' routines and strategies. With all the tools available nowadays, there's simply no reason your developmental classes should be boring. They can easily become dynamic learning environments. It begins with a sincere desire to meet the Developmental Learner on their own terms. I can't wait to talk about how technology can assist and seamlessly augment your lectures.

#### BREAKOUT SESSIONS AM - 11:00 am - 12:00 pm

1. A Statistical Study: Which procedure is more painful – one or multiple incisions? – Hanli Huang & Mike Nolan, Brookdale Community College

Strong levels of pain are commonly related to multiple incisions. In this study, we will use statistical analysis to examine the levels of pain related to one or multiple incisions based on the gallbladder surgery results of 40 patients.

2. Nutrition Equation – Greg Bullock, Raritan Valley Community College

This is a project I started in 2011 when I became interested in health and analyzing Nutrition Facts labels. Upon studying Nutrition Facts and attempting to apply them to my dietary choices, I came to realize how vague and convoluted they are, and therefore how impractical and ineffective they are to the average consumer. I wanted something that would give quick and easy answers about a food I was deciding to buy or eat, that would answer simple questions such as:

Is this food good or bad?

- How good or bad is it?
- How much of it should I eat in a day?
- How does it compare to other foods?

It was then that I conceived of an idea to create an equation that would generate one score to answer those questions, because numbers don't lie. It took me 5 years to complete it. This equation is part of a health and diet book which I've spent 2 years writing and is almost complete, which I plan on self-publishing in the coming months. In my presentation, I would:

- Explain the steps used to create the equation.
- Show the full equation.
- Explain how the results are to be interpreted and used.
- Explain its other uses.
- Show the food scores and rankings.
- Give a brief background on Nutrition Facts labels.
- Give a brief comparison to other health-related equations.
- Later this month, I plan on submitting my Equation to the FDA's Request for Information & Comments for Re-defining the term "Healthy" on food labels: Federal Register Notice Announcing the Extension of the Comment Period.

# 3. **Commercial Presentation – Latest Updates in MyLabs Math/Stats** – Diane Hollister, Pearson Implementation Team

Have you seen the latest updates in the MyLab Math/Stats courses? Let's take a look at the summer new features and explore some best practices from your peers to help you maximize your use of MyLab courseware. Diane Hollister taught in K12 and then higher education for over 20 years before joining the Pearson Implementation Team full-time in 2015. As a member of the customer support team, she creates training materials, helps build courses, and helps train MyLab users for over ten products. She continues to teach as an adjunct for the University of Maine and enjoys working with her peers across North America and around the world. She enjoys studying neurobiological research and its implications for teaching and learning.

4. **Building Mathematics Course using the Backward Design Process** – Jonathan Weisbrod, Rowan College at Burlington County and Kathleen Shay, Middlesex County College

Based off Grant Wiggins's and Jay McTighe's Backwards Design Process, we have rewritten out Multivariable Calculus and Differential Equations courses. By focusing on learning outcomes, we design our course and assessments to best achieve those outcomes. The syllabi we present are designed to be effective based on current research on course design.

#### BREAKOUT SESSIONS PM - 1:00 pm - 2:00 pm

1. The Impact of an Elementary Algebra Course on Student Success in College Level Math and Persistence in College – Lori Austin, Raritan Valley Community College

A multi-college study was completed in NJ. Many students who enter college in need of a liberal arts math course are required to complete developmental elementary algebra prior to college level math. Using a regression discontinuity research design, this session will examine the impact elementary algebra has on success on a liberal arts math course and persistence in college.

# 2. **Engaging Students in a STEM Study-Abroad Program** – Arminda Wey, Brookdale Community College

Actually DOING and USING math and science has been an awesome, positive experience for our non-STEM study-abroad participants this past summer at Brookdale Community College. Our course combined math and science, outdoor data gathering, sun and water, travel with passports, planes, boats, busses and automobiles! It also triggered lasting impressions, better informed and environmentally conscience citizens of the world, a convert from business to environmental science, and pride. This presentation will tell of the activities, structure and outcomes of the study abroad STEM courses and let New Jersey Community College faculty know how they can have their students take part.

# 3. **Commercial Presentation – MindTap Math Foundations** – Brien Dunn, Louisiana Delta Community College

Director and Professor of Mathematics and Business at Louisiana Delta Community College in Monroe, La., Professor Dunn is always interested in improving how he does things. Clearly, systemic, departmental, and individual course change is never easy, but being part of the initial product pilot test for the new MindTap Math Foundations made him realize the potential to improve his course delivery and strategy.

Professor Dunn used the same old, increasingly antiquated software approach for years, and student performance was stagnant at best. It became apparent the old 'something-lab' software was simply not keeping up with the tech-savvy expectations and norms of this generation.

MindTap Math Foundation's multi-optioned learning approach gives instructors needed content delivery flexibility. Offering extensive modern style games, creative white-board communication options, detailed quick videos, and a myriad of more traditional homework exercise problems, the software was a breath of fresh-air over other competing platforms.

With a fundamentally different design approach compared to other options, instantaneous, easy and useful analytics and feedback, this is exactly what Professor Dunn needed to more effectively and individually respond to students. It looks and feels modern and up-to-date and Professor Dunn loves that he can quickly determine who hasn't started, in-progress, or completed the assignments, which is critically useful instructional information before walking into the classroom. And if Brien wants more detail, those options are there as well.

Brien knows that change is often not easy for professors, but this is something he got behind early on and it's making a big difference. Brien's experience spearheading the adoption and training process of this new platform at his institution provided perspective on what it really takes to commit and make such substantive changes - for some it was easy and other's a bit more challenging but well worth the effort!

# 4. **New Online Educational Resource Curriculum** - Linda Wang and Nathalie Darden, Brookdale Community College

This presentation will focus on lessons learned and experiences gained while creating an Open Educational Resources (OER) course for MATH 021, Introductory Algebra. One of the presenters co-developed the OER eBook as well as the accompanying support curriculum. The OER course was piloted in a total of seven sections during the spring 2017 semester and has been used in all sections of MATH 021 since the summer of 2017. This fall semester, we offer all 36 sections of MATH 021 with the OER e-book. The presentation will include the timeline and process for setting up the OER course, links to OER sites, copyright licensing information, and helpful suggestions. Please plan to attend this session if you are interested in developing an eBook that will be free for your students, or just interested in learning about OER.

#### MATHEMATICS ASSOCIATION OF TWO-YEAR COLLEGES OF NEW JERSEY

#### Business Meeting Minutes - Essex County College - April 8, 2017

- 1. Meeting called to order at 10:45 am. President Gabriella Sprague welcomed all members and thanked the faculty and administration of Essex County College for hosting today's event.
- 2. MOTION to approve the minutes from the Fall 2016 Meeting at Hudson County Community College.
  - a. Past-President M. Persau asked that the 4<sup>th</sup> line be deleted, as Sally Mulvey was elected President-Elect at the Spring 2016 meeting, not at the Fall 2016 meeting. The motion to accept the modified minutes was approved.
- 3. Spring 2017 Elections:
  - a. Treasurer Lenore Lerer volunteered for another 2-year term.

Membership Vote = unanimously approved

b. President-Elect – current Past-President explained that the P-E year is followed by a year as President, and then finished with a year as Past President. A floor nomination was made for Dr. Susan Monroe, from Brookdale CC.

Membership Vote = unanimously approved

- vice-President South Ashley Tasy volunteered for another 2-year term
   Membership Vote = unanimously approved
- d. Newsletter Editor/Historian Meimee Persau volunteered for 2-year term Membership Vote = unanimously approved
- 4. Thank yous:
  - a. speaker 1 Professor Spyro Roubos, Brookdale CC
  - b. speaker 2 Professor Jonathan Weisbrod, Rowen Coll @Burlington
  - c. speaker 3a Professor Carlos Castillo, Essex CC
  - d. speaker 3b Professor Ines Figueiras, Essex CC
  - e. speaker 4 Dr. Susan Monroe, Brookdale CC
  - f. Past-President Professor Meimee Persau, County College of Morris
- 5. Treasurer's Report was presented for review.
- **6.** The Fall 2017 Meeting will be held on **Saturday, October 14, 2017 at Raritan Valley Community College** (this has been modified by RVCC due to availability of facility).
- 7. The Spring 2018 Meeting may be a joint meeting with the Mathematics Association of America (MAA) at Rowen College at Burlington County on Saturday, April 7, 2018. Further discussion will occur between MATYCNJ and MAA Board member, Professor Jonathan Weisbrod.
- 8. Door prizes were distributed.
- 9. Professor Ruth Feigenbaum, Bergen CC, will hold a session in Essex Room to discuss with interested parties the recent change in state-level rules to reduce the acceptable SAT score to bypass developmental classes in community colleges from 540 to 500. However, it may be that the wrong action was implemented. A group action may be required to fix this error.
- 10. Meeting adjourned at 11:15 am.

Minutes respectfully submitted by,

Meimee Persau Newsletter Editor/Historian

## **Scenes from the Spring 2017 Meeting at Essex County College**







## **MATYC - NJ**

## Treasurer's Report for April 1, 2017 through October 7, 2017

Balance as of April 1, 2017	\$6893.09
Income:	
Membership dues received at spring meeting	\$ 70.00
Total Income	\$ 70.00
Expenses:  4/1/17 Sally Mulvey(Crown Trophy)  4/8/17 Essex CC Bookstore (folders)  4/8/17 Essex CC Metropolitan Food Service	\$ 66.34 \$ 41.94 \$ 680.00
Total Expenses	(\$788.28)

**Balance as of October 7, 2017** \$6174.81

Submitted by: Lenore Lerer, Treasurer

## **Directions to Raritan Valley Community College - Branchburg Campus**

Information is also available at: http://www.raritanval.edu/about/directions.html#branchburg

#### FROM the **NORTH**

From INTERSTATE 287 SOUTH - (From Morristown Area): Take Interstate 287 SOUTH to Interstate 78 WEST. Proceed on 78 WEST for approx. 3 miles to Exit 26 (Lamington/North Branch). At traffic light at off ramp make a left onto Rattlesnake (County Road 665) which turns into Lamington Road. Take Lamington Road for 2.3 miles. The entrance to Raritan Valley Community College will be on the left.

From ROUTE 206 SOUTH - (From Chester/Peapack): Proceed south on Route 206. Make a right turn onto Lamington Road in Bedminster. Continue on Lamington Road for approximately 3 - 4 miles. Just past the Lamington General Store make a left onto Lamington Road (County Road 665). Take Lamington Road for approximately 5 miles. The side entrance to Raritan Valley Community College will be on the left.

#### FROM the **SOUTH**

**INTERSTATE 287 NORTH** - (From Edison Area): Take Interstate 287 NORTH to the Route 22 WEST exit. After approx. 7 miles (just before the 5th light), exit at Raritan Valley College Drive. Go straight at first traffic light and enter the College.

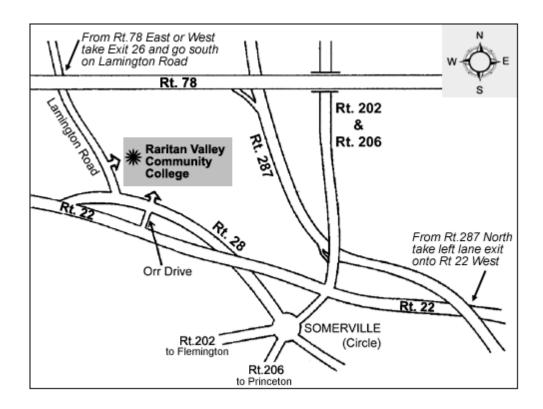
**From ROUTE 206 NORTH** - (From Princeton Area): Take Route 206 NORTH to the Somerville Circle. At the Somerville Circle exit onto Route 28 WEST (County Road 614). Proceed on Route 28 WEST for approx. 4 miles. Entrance to the College will be on your right at a traffic light.

#### FROM the **EAST**

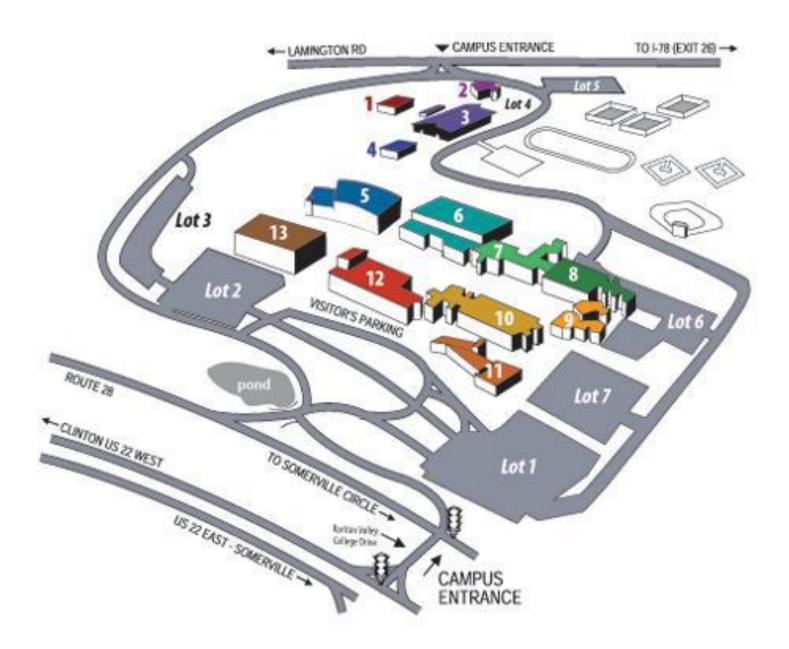
**From INTERSTATE 78 WEST** - (From Newark Area): Take Interstate 78 WEST. Proceed on 78 WEST and get off at Exit 26 (Lamington/North Branch). At traffic light at off ramp make a left onto Rattlesnake Road (County Road 665) which turns into Lamington Road. Take Lamington Road for 2.3 miles. The entrance to Raritan Valley Community College will be on the left.

#### FROM the WEST

**From INTERSTATE 78 EAST** - (From Clinton Area and Pennsylvania): Take Interstate 78 EAST to Exit 26 (Lamington/North Branch). Turn right at the first light onto Lamington Road (County Road 665). Take Lamington Road for 2.3 miles. The entrance to Raritan Valley Community College will be on the left.







The Conference Center is in Building #11.

## **Executive Committee of MATYCNJ**

President	Treasurer
Sally Mulvey	Lenore Lerer
Brookdale Community College	Bergen Community College
smulvey@brookdalecc.edu	<u>llerer@bergen.edu</u>
President-Elect	Vice-President North
Susan Monroe	Palma Benko
Brookdale Community College	Passaic County Community College
smonroe@brookdalecc.edu	pbenko@pccc.edu
Past–President	Vice-President South
Past–President Gabriela Sprague	Vice-President South Ashley Tasy
Gabriela Sprague	Ashley Tasy
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Gabriela Sprague Brookdale Community College gsprague@brookdalecc.edu  Newsletter Editor/Historian Meimee Persau	Ashley Tasy Brookdale Community College atasy@brookdalecc.edu  Recording Secretary Karina Aliaga

MATYCNJ College Representatives 2017 - 2018

	School	Name
1	Atlantic Cape Community College	Jed Soifer
2	Bergen Community College	Ruth Feigenbaum
3	Brookdale Community College	Sally Mulvey
4	Rowan College at Burlington County	William Whitfield
5	Camden County College	Yohannes Tecle
6	Cumberland County College	Adrian DeWindt-King
7	Essex County College	Mamta Vyas
8	Rowan College at Gloucester County	Michele Briles
9	Hudson County Community College	Ted Lai
10	Mercer County Community College	Don Reichman
11	Middlesex County College	Guy Reynolds
12	County College of Morris	Meimee Persau
13	Ocean County College	Yuan Zhong Xu
14	Passaic County Community College	Janet Delaney
15	Raritan Valley Community College	Boualem Bendjilali
16	Salem Community College	Howard Valentine
17	Sussex County Community College	Mary DeHart
18	Union County College	Susan McLoughlin
19	Warren County Community College	Harvey Cartine

Many thanks to this group of volunteers! These folks send in your Campus News, distribute MATYCNJ information to members in your department, and encourage their colleagues to join and attend MATYCNJ meetings. Should you wish to become a Campus Representative, please let the Editor know.

## Campus News:

#### **Brookdale Community College**

Barbara Tozzi, who has been very active with MATYCNJ, has retired after taking a sabbatical to create an open educational resource for Elementary Algebra with Linda Wang. We wish her well and will miss her. We would also like to welcome a new faculty member, Prince Sekyi, to the Brookdale team.

This past summer, the STEM Institute ran a study abroad combination of courses that consisted of MATH 131, Statistics, and ENVR 107, Environmental Science. The students met on campus for one week, then traveled to Bermuda for one week. Upon return the students completed the courses in a combination of face-to-face meetings and online work over an additional six-week period of time.

The group, led by Professor Arminda Wey from the math department and Professor Juliette Goulet from environmental science, traveled to the Bermuda Institute of Ocean Sciences (BIOS) where they applied studies of environmental science and statistics by actively collecting data and identifying species of fish, coral and plankton via snorkeling activities and lab work. The students interacted with ocean and ecological researchers in conversations and presentations on coral reefs, lionfish, reef fish and plankton. They had the experience of data collection and realized the necessity of collecting "good" data, and realized the requisite and usefulness of statistics in environmental studies and see its relevance in all areas of study.

Professor Wey guided the students in preparation for a poster presentation made on July 14, 2017, in SLC 103. Each student was able to share a piece of the experience that impacted her/him. Posters displayed statistics on ocean water temperatures, salinity, fluorescence levels and oxygen levels as well as plankton, fish and coral species, and the increased numbers and locations of lionfish. Along with the graphs and descriptive statistics, students were able to explain some impacts of invasive species such as lionfish, the importance of plankton and coral, and the importance of diversity and species richness to the health of the ecosystem. Students stated the experience was enriching and they learned out of curiosity, not merely for a grade, and that the learning experience was preferable to a regular in-class format.

The International Center, specifically Anna Flood and Dr. Janice Thomas, were exceptionally supportive and accommodating with guidance and arrangements between the College and BIOS. It is wonderful that our students had such an opportunity. The International Center allowed the program to run with a small number of students, and our students contributed this as a factor of their enjoyment and success.

Sally Mulvey

### **County College of Morris**

Deanne Stigliano, an assistant professor of Mathematics at the County College of Morris, received her tenure on August 30, 2017. Professor Stigliano has taught at CCM since 2011, beginning as an adjunct faculty member and as a one-year appointee. Prior to that, she taught for ten years at Paramus High School (Paramus, NJ) and for two years at Mother Seton Regional High School (Clark, NJ). She earned her M.A. in Mathematics with a Concentration in Education from Montclair State University and B.A. in Mathematics from Caldwell College.

The County College of Morris introduces two new faculty members to the Mathematics Department – Professor Heather Wolfgang and Dr. Chung Wong. Best wishes for very successful careers here.

Meimee Persau

# **THANK YOU**

Thank you to President Sally Mulvey for arranging the Fall 2017 Agenda.

**Thank you to Raritan Valley Community College for sponsoring breakfast** and to the RVCC Mathematics Department for welcoming MATYCNJ and for making all the necessary arrangements for the fall meeting.

Thank you to Pearson for sponsoring lunch for our meeting attendees.

Thank you to all our sponsors and contributors for helping us hold a successful meeting.

\*

# **UPCOMING MEETINGS**

# 43rd AMATYC Annual Conference

San Diego, CA November 9 – 12, 2017

Conference Theme: HAVING A PRIME TIME

AMATYC – American Mathematical Association of Two-Year Colleges For more information: http://www.amatyc.org

# **Spring 2018 MATYCNJ Meeting**

Rowan College at Burlington County Saturday, April 7, 2018

joint meeting with the Mathematical Association of America (MAA)

# Mathematics Association of Two-Year Colleges of New Jersey Membership Form

Check one	Regular Member Lifetime Member	\$10.00 No fee
Please Print:		
Date	Academic Yea	ar
Name		
College		
New members: Please fill representatives with 2017-	v	bers need only provide their campus
College Address		
City	State	Zip
Business Phone	Home Phon	ne
Home Address		
City	State	Zip
E-Mail Address		
Other Affiliations MAA	AMATYC	

Professor Lenore Lerer Mathematics Department Bergen Community College 400 Paramus Road Paramus, NJ 07652

Please return completed form with \$10.00 membership fee (check payable to MATYC-NJ) to: