

MichMATYC SUM-TIMES

Two Years College Mathematics in Michigan



Edited by Indah [kooswinarsinindyahd@macomb.edu]

February 2016

Inside this issue: *Letter from the president, Message from Midwest VP, Teaching Excellent Award, Save the Date, Campus News, Article by J. Rotman, PAC, Call for MichMATYC Conference Presenter.*

Letter from the President: Cindie Wade, St. Clair CC

Welcome to a new year, a new semester and a chance at some new challenges.

As the semester moves on, just remember there is always the opportunity to "escape" reality and recharge at a conference!

The next AMATYC Conference will be in Denver, Nov. 17-20. Don't forget to nominate someone for the Affiliate Scholarship to the conference, which will pay for their registration.

Project ACCESS is a mentoring and leadership project for instructors who are just beginning their careers. The deadline for this year cohort is May 15. We have had several members from our Affiliate. Nominate some of your newer colleagues.

Our Student Scholarship is available this year again and I'm sure you have some outstanding students to nominate.

The Teaching Excellence Award is given in the odd years, so nominate someone for that this year. Those nominations are due December 9.

Delta College is hosting our MichMATYC conference this year, Oct. 14-15.

Look at all of the opportunities that await you. Mark your calendars for these dates and have a good semester.

AMATYC Update

Jon Oaks
 AMATYC Midwest Regional Vice President
 jonnyoaks@gmail.com

Introduction



My name is Jon Oaks and as you may or may not know, I am the AMATYC Midwest Regional Vice President as of January 1, 2016, taking over for Jim Ham, who is now your AMATYC President Elect. I can't thank Jim enough for all of his hard work over the past 4 years as Midwest Vice President as he has done such a wonderful job in helping to keep the region running smoothly. However, it is really all of the hard work that you do in MichMATYC to bring leadership

opportunities and professional development opportunities to everyone in the state who has an interest in mathematics education in the first two years of college that matters the most. So, I want to thank you for all that you do in our great state of Michigan as well!

With that being said, I want you all to know that I am here to serve you in whatever possible way that I am able to do so – if you ever have any questions about anything that AMATYC does or about getting more involved in the organization, please don't ever hesitate to reach out to me. My e-mail address is jonnyoaks@gmail.com.

Enjoy your semester. Make it a great one!

Jon

2015 AMATYC Conference



At the recent AMATYC conference in New Orleans, over 1342 AMATYC members, including 56 from Michigan, participated in top-notch professional development activities.

The 2015 conference proceedings are now available. For details, see

<http://www.amatyc.org/?page=2015ConfProceedings>

2016 AMATYC Conference



Start making plans to attend the 2016 AMATYC conference. Here are some details:

42nd AMATYC Annual Conference

Denver, CO
 Sheraton Denver Downtown Hotel
 November 17-20, 2016

Proposals to present are due by February 1, 2016

Affiliate Scholarship Continues! One member from MichMATYC will receive a free conference registration.

AMATYC Webinars

Below you will find information on AMATYC's Upcoming Webinars. Webinars are great form of Professional Development that you can do from the comfort of your own home or office. AMATYC is always looking for webinar speakers. If you would like more information about participating in or facilitating a webinar, please visit <http://www.amatyc.org/?page=ProfDevForm> to request more information.

Using Data Visualizations to Improve Understanding about the Labor Market and Economy

Tuesday, February 23, 2016 at 2:00 pm EST
Jay Meisenheimer

More than a Decade of Mandatory Placement at Iowa Central Community College

Tuesday, March 22, 2016 at 4:00 pm EDT
John Hansen

So, You're Teaching Statistics for the First Time?

Tuesday, June 7, 2016 at 1:00pm EDT
Jon Oaks



AMATYC Project ACCCESS is a mentoring and leadership program for two-year college mathematics educators who are beginning their careers. Funded in large part by the AMATYC Foundation, this year-long, multi-year project sends about 25 new AMATYC members to the AMATYC conference two years in a row and connects them with a community of learners.

A new cohort of AMATYC fellows is selected each year.

The deadline to apply to be included in the next cohort is May 15, 2016. Please consider nominating yourself or one of your newer colleagues.



Equip your mathematics faculty with the curricular, pedagogical, and technology tools to ensure that all students will have the mathematics they need to succeed in the 21st century. Bring in a Traveling Workshop for your campus professional development event or for a regional conference!

AMATYC will fund at least 8 traveling workshop grants for up to \$2,000 each in 2016.

These Traveling Workshop grants will be awarded to (1) Affiliates, or (2) AMATYC Institutional members.

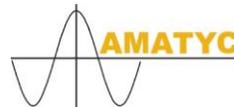
OTHER AMATYC Opportunities

Are you interested in Professional Development? AMATYC has many opportunities for you:

- Webinars
- Travelling workshops
- Conferences
- Publications

There is something for everyone! However, if there is some form of professional development that you would like us to offer, but we currently don't, please let us know that also!

AMATYC Membership



I encourage you to learn about and join AMATYC if you are not a member. For more information about AMATYC events and activities, please check out the recent AMATYC newsletter at

<http://www.amatyc.org/?page=AMATYCNews> or visit the AMATYC website at amatyc.org. If you are a current member, I encourage you to continue your AMATYC membership throughout your career like so many of your committed MichMATYC colleagues.



The 2015 MichMATYC Teaching Excellence Award was awarded to *Mary Roberson* of Delta College by Laura Wicklund at the MichMATYC 2015 Conference. Mary has devoted her entire career to supporting students at risk. She has taught everything from arithmetic through calculus, making significant contributions to the structure of each course. She has written an Algebra textbook and mentors colleagues who teach from it. Mary has developed online courses, formed learning communities, and was instrumental in establishing tutoring services and an online course management system at Delta College. Mary has also served as a reviewer for AMATYC's journal.

MichMATYC Teaching Excellence Award

Deadline for Nominations: May 16, 2016

Nomination forms are available on the MichMATYC website.

Nominate one of your exceptional colleagues!!

SAVE THE DATE



42nd AMATYC Annual Conference
 Denver, CO
 November 17-20, 2016

~~~~~ CAMPUS NEWS ~~~~~

**Alpena CC - Dan Rothe**

The spring semester has begun here at ACC. With Steve Lewis training for the new electrical bachelors program and Jim Berles busy with GIS and other similar projects, Meghan Cameron, Mike Kelley, and Dan Rothe are left as the remaining full time math instructors. In order to cover the load, Mike and Dan both have lots of overload this semester. Dual enrollment in higher math classes continues to be strong. In particular, we have lots of Alpena High School students in Calc II, Differential Equations, and C++ Programming here on main campus in Alpena. We have a good sized class of mostly Rogers City High School students in an early morning College Algebra (really a Finite Math class) offered in Rogers City. Math class enrollments at the Huron Shores Campus in Oscoda are up and we are hopeful of continued growth in that location with the new Industrial Technology/Manufacturing Lab on that campus. Overall, we are at about the breakeven point on enrollment relative to last spring. After several semesters of decline, we are hopeful that the numbers have stabilized.

Sigma Zeta Math/Science Honor Society inducted four new members in the fall. This is our smaller, informal induction. They will be honored in the formal ceremony along with the spring inductees later this semester. The members enjoyed a tour of the Lafarge Alpena Plant (world's largest cement plant) courtesy of our tour guide and alumni member Ryan Kapalla who is now using his

engineering degree as Power plant Supervisor at Lafarge. It is encouraging to look at what great things our alumni are doing. To list a few others, we have former Sigma Zeta President Amy Parker now a doctor of pharmacy working at Rite Aid in West Branch; and former President Jillian Sanderson working as an engineer for the Union Pacific Railroad in Nebraska; Adam Miller (Design Engineer at Nissan North America), Michael Lamb (doctor of pharmacy at LaFave Pharmacy in Alpena), as well as numerous teachers and other professionals using their math/science degrees. Regardless of what school you teach in, remember the positive difference you make in students' lives - especially on days when problem students make you wonder if you work pays off.

A little math humor courtesy of one of my differential equations students: What's the derivative of a cow? .....  
 ..... prime rib (that's a cowculus joke)!

**Delta CC - Frances Lichtman**

We are pleased and proud to announce that Jim Ham is the President-elect of AMATYC. This fall, Mary Roberson was named the recipient of the 2015 MichMATYC Teaching Excellence Award. Steve Rosin was promoted to the rank of Professor, and Joe Hernandez and Myung Pinner earned tenure.

(Continued on page 6)

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**Delta CC**

The Mathematics Division looks forward to hosting the 2016 MichMATYC Annual Conference, Friday and Saturday, October 14 and 15, at Delta College. We invite you to join us and to consider giving a contributed talk, as this venue is ideal for discussing issues related to curriculum or pedagogy. Topics of particular interest include: accessibility, common core, flipping the classroom, open educational resources, pathways, and software applications for the classroom. The Call for Presenters is included in this newsletter.

**Henry Ford CC - Jeff Morford**

Henry Ford College is glad to welcome April Falardeau to our faculty. April is a full-time tenure-track teacher at the college.

We also plan to expand the offering of our Best Fit developmental sections. For students who beginning in pre-algebra this is a program where for the first three weeks teachers and students work together to determine if a traditional classroom model, or a computer mediated model seems like it would work best for each student. At the end of 3 weeks students either continue in a traditional classroom model, or switch to a computer mediated model. Initial results are promising with success clearly up in the classroom sections and no worse in the computer-mediated sections when compared to other offerings at the college.

**Kalamazoo Valley CC - Darlene Kohrman**

Changes in our developmental mathematics courses include the use of a stronger attendance policy. Several Beginning Algebra sections have agreed to pilot the same attendance policy currently enforced on our Guided Learning Workshop sections. Students who do not comply with the new attendance policy risk being withdrawn from the class. This policy gets support from research particularly in the recommendations of Hunter Boylan. Other sections of our development mathematics also enforce attendance such as our Carnegie cognitive tutoring sections.

Nancy Vendeville continues to take the lead on organizing assessment results for all departmental finals. She maintains semester and yearly assessment reports on both the mathematics department's Moodle site and has uploaded all documentation into our college wide repository known as WEAVE. As members of the Institutional Learning Outcomes Committee, she and Darlene Kohrman guide other departments in establishing assessment protocols.

Michael Raines will be piloting a new course in Linear Algebra in the upcoming academic year. This course will broaden the department's course offerings and meet student demands for such a course.

Darlene Kohrman serves on the committee for the upcoming MI-AMTE Conversations Among

(Continued on page 7)

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**Kalamazoo Valley CC**

Colleagues conference to be held at Western Michigan University on March 19, 2016. The theme of this year's conference is *Bringing the Standards for Mathematical Practice to Life*. Mathematics faculty members Sheila Eisenhauer and Robin Murchison-Greene will assist during the conference. The entire mathematics department contributed towards a monetary sponsorship in support of this conference.

Members of the department attended several conferences this past fall. The conferences were AMATYC, MichMATYC, and TeMaCC (Teaching Mathematics Content Courses). Several members will attend the upcoming MDEC conference at Delta College Planetarium on March 31, - April 1, 2016. The theme of this conference is *Developmental Education Makes a Difference*.

**Kellogg CC - Anna Cox**

The Kellogg Community College Board of Trustees on Wednesday, Nov. 18, 2015, recognized the College's Mathematics faculty for recently receiving the Outstanding Educator Team Award for 2015 at the annual Trends in Occupational Studies conference which was held in Traverse City, Michigan.

The math faculty received the statewide award in October for their efforts to revise the College's math curriculum to address transfer and occupational pathways while ensuring that courses

prepare students for success academically as well as in their chosen careers, such as nursing. The faculty recognized on Nov. 18 include Marcus Anderson, Anna Cox, Pat Kopf, Emily Patterson, Graham Smith, Sue Stetler, Saeed Sabouni (not present) and department chair Carole Davis.

Using the Michigan Transfer Agreement as a catalyst, the math department worked across the divisions of KCC and created a new course — Math 102: Practical Algebra — as a prerequisite for students in career and occupational classes. The faculty also collaborated to write their own Practical Algebra textbook for the new class.

"I am truly proud that our College employs faculty who value student success to the point of assuming responsibility and a tremendous amount of work without any administrative directive or compliance mandate," wrote Dr. Jan Karazim, Dean, Workforce Development, in her nomination to the Michigan Occupational Deans Administrative Council.

The Board viewed a 10-minute video produced as part of the Trends award and featuring interviews with the KCC math faculty. The video is viewable publicly on Kellogg Community College's YouTube channel, <https://youtu.be/WEz4vk6z5GU>

"This was a lot of work and we couldn't have done it without the support of everyone at the College," Cox said. "We're all thankful that we work at such an amazing place."

**Lansing CC - Leslie Mohnke**

Lansing Community College currently has two full time positions posted. One is for Mathematics and the other for Computer Science. Fall 2016 is the anticipated start date. Please visit the following link for more information.

<https://www.jobs.lcc.edu/>

Like most institutions, LCC has had arithmetic courses in the developmental math program. However, math faculty has not been happy with our course in terms of helping students succeed. Furthermore, the content of the pre-algebra course is below high school level; financial aid regulations ban such courses from being included in the calculation of student aid. Faculty is working hard to develop a creative plan to provide a better arithmetic course while minimizing the expense to students. Our new course (Math040, Mathematical Foundations) is in the works; if approved by the college, we will begin offering Math040 in Fall 2016. Math040 will prepare students for both Mathematical Literacy (Math105) and Introductory Algebra (Math107).

In an effort to get developmental students through to college level math ASAP, LCC has run a combined Beginning and Intermediate Algebra for several semesters with encouraging success. This Spring Semester a new course has been launched that further works to streamline the developmental math sequence and save students money and developmental credits. Our new combined course, "Fast Paced Algebra", is 4 credits

instead of 8, and meets for 6 hours instead of 8. Students pay for 6 contact hours and faculty are also paid at this rate. It's too early for anything but anecdotal information, but things are looking hopeful!

**Macomb CC South Campus - Jonathan Oaks**

Effective January 2016, the building that houses the majority of math classes and the math faculty offices at our campus was shut down for a year-long renovation. It has been an adjustment for our department, as well as our Cashiers, Financial Aid, Veteran & Military Services, and Records & Registration Offices, which have also been temporarily relocated for the year. We have had to cut our course offerings due to limited classroom availability across campus and cut our class sizes as many of our other academic buildings do not have as large of room capacities.

Macomb is still in the process of preparing for the replacement of the COMPASS test. We have narrowed down our choices, as many other colleges around the state have done as well, and we now working on cut scores and alternative placement measures. Our college has compiled some charts and research and we would be more than happy to communicate with any of you who approach us to ask about our findings.

Some other big changes at our college are that our college portal was redesigned over the holiday

(Continued on page 9)

(continued from page 8)

**Macomb CC South Campus**

break to be mobile-friendly, we have implemented student college-issued e-mail addresses so that students can qualify for offers such as free Microsoft Office 365, and we are switching our Learning Management Systems (LMS) to Canvas effective Summer 2016!

South Campus is also pleased to have Erica Flapan, the 2016-2017 MAA Pólya Lecturer as a guest speaker on Thursday, March 17, 2016, giving two presentations:

During "Mirror Image Symmetry: A Presentation" from 12:00pm-2:00pm in Room J-340, she will present on the topic of mirror image symmetry in life, in mathematics, and in chemistry. She will explain why it is important to determine whether a molecule has mirror image symmetry, and will also discuss the differences between a geometric, chemical, and topological approach to understanding mirror image symmetry. She will then present examples of molecules that are symmetric or asymmetric from different viewpoints including some of her own results about topologically asymmetric molecules. No background knowledge is necessary to understand this lecture.

During "The Life of Erica Flapan: A Presentation" from 6:00pm-8:00pm in Room J-340, she will describe what it is like to be a woman in the field of mathematics. In this talk, she will describe her experience becoming a mathematician and developing her own style of teaching. She will give

viewers a personal look into her unusual background: how she became a mathematician at a time when there weren't many women in mathematics and how she went to an elementary school with no curriculum or educational agenda. Flapan will also describe what it means to her to be a good teacher of a subject she enjoys and how each person's teaching methods should fit their personality and their mathematical preferences as well as the needs and goals of their courses and their students. While she had to overcome hurdles as a woman in math, she actually felt that math was the only field in which she could succeed.

**Mid Michigan CC - David Kedrowski**

We are well into the process of redeveloping our intermediate algebra course after successful redevelopments of basic mathematics and beginning algebra. As with the earlier work, we are writing our own materials for the course, giving us greatly improved control over course content and saving students a very substantial amount of money.

A project to replace Accuplacer with a multiple-measure placement system for both math and English is progressing. High school transcript and other data are in the hands of a statistician who will perform a logistic regression and see what variables will provide the most lift. This project started with our president and dean and we're interested to see where it goes.

**Mott CC - Bernard Cunningham**

There is nothing new happening at Mott CC. We are experiencing a decline in enrollment for this semester.

The STAT Track has increased in enrollment over the last two years and is beginning to level off.

The STEM Track is better off because of the STAT Track, even though the STAT Track takes students from the STEM Track. Therefore, The STEM Track has experienced a decline in enrollment and an improvement in the pass rate!

That is a good thing to report!

**St. Clair County CC - Cindie Wade**

We, like I assume many places, are trying to figure out what to do with the changes from ACT to SAT and the demise of Compass. We are going to switch over to Accuplacer. We are also trying to deal with the MTA requirements and hopefully will create a Math Literacy course as a pre-req. for our "non-STEM" math course.

Our President of the college is moving on (in March) and our Vice President is retiring (in July),

not to mention that we have a visit from HLC coming.

And now for the good news. Nick Goins and Jeff VanHamlin have authored 2 books and here is the blurb about that: "Nick Goins and Jeff VanHamlin, Mathematics Professors at St Clair County Community College, are finishing work on a Precalculus textbook that will be published and available for the Fall 2016 semester. In addition, Nick is finishing work on a Calculus textbook that will be published and available for the Winter 2017 semester. Manuscripts of both are currently being used by Nick and have been very well received by his students.

If you are interested in more information about either book, or for sample sections prior to publication, feel free to contact Nick at [ngoins@sc4.edu](mailto:ngoins@sc4.edu) or Jeff at [jvanhamlin@sc4.edu](mailto:jvanhamlin@sc4.edu)."



**A note from Anna Cox - Kellog CC:**

In the video link <https://youtu.be/WEz4vk6z5GU>, you can see that **Dr. Ren Hartung** from Glen Oaks Community College won the individual award at Trends.

*A note from the editor: Every article in this newsletter is an unedited version of what the representations sent me.*

## Responding to Challenges: Changing the Mathematics Curriculum in the First Two Years

By Jack Rotman, Lansing Community College

(this article is appearing in both the MichMAA and MichMATYC newsletters)

Michigan is unique in our approach to organizing higher education in the state; we do not have a governing body, or a coordinating group, for colleges and universities. However, we are not unique in offering an outdated mathematics curriculum in the first two years. Our pre-calculus and calculus courses have remained essentially unchanged for the past half-century (and longer), in spite of dramatic changes both in the mathematical sciences and in our client disciplines.

In this short article, I want to present:

- Information on our current pre-calculus courses, including rates of transfer to other institutions
- Data and documented needs relative to mathematics in the first two years
- A call to action in Michigan

### Michigan Pre-Calculus Courses

At the global level of our curriculum, we can examine the sequence and titles of courses used as prerequisites to a standard Calculus I course at our institutions. With a focus on a sample of public institutions, I examined these courses (as of February 2015) using 27 institution web sites (15 community colleges, 12 universities).

### Michigan paths to calculus I

| Coll alg & trig one semester | Coll alg, coll trig two semesters                                                                    | Precalculus one semester                                                                        | Precalc two semesters | Coll Alg, Precalc two semesters           | Trig, precalc two semesters   |
|------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------|-------------------------------|
| MSU; OCC                     | Macomb; MSU; CMU; OCC; EMU; MTU; FSU; Mott; Monroe County; GVSU; Schoolcraft; Montcalm; (Muskegon *) | Macomb; GRCC; WMU; LCC; CMU; Henry Ford; UM-D; EMU; MTU; Mott; Oakland; Monroe County; Montcalm | LCC                   | KVCC; SVSU; Washtenaw; Jackson; NMU; UM-F | Delta; NMU; Kellogg; St Clair |
| 2                            | 12 plus 1                                                                                            | 13                                                                                              | 1                     | 6                                         | 4                             |

\* Muskegon CC courses do not have "College" in their titles.

A second step in this global analysis was to look at transfer rates; this was completed by pulling data from the receiving institutions transfer sites (26 of them) for all of these 39 courses. Here is a summary of the transfer data:

- 72% of the 1014 (39\*26) combinations resulted in known data about transfer
- 28% was 'missing data' (unable to determine transfer)
- Of the known data ... 82% of the prerequisites to calc I transferred as a prerequisite to calc I
- Of the known data ... 18% of the prerequisites to calc I FAILED to transfer as a prerequisite to calc I.

Complete details about this transfer study are available at

[http://www.devmathrevival.net/?page\\_id=2144](http://www.devmathrevival.net/?page_id=2144).

#### **Data and documented needs related to our curriculum**

The curriculum of pre-calculus and calculus has not changed in any significant way for a long time. In his article "**The Pitfalls of Precalculus**" (<http://launchings.blogspot.com/2014/10/the-pitfalls-of-prec calculus.html>), David Bressoud cites results from a large study ( $n > 10000$ ) which looked at different student backgrounds and precalculus enrollment as predictors of calculus I success. It is noteworthy that well prepared students who took precalculus did worse (significantly worse) in calculus I than similar students who did not take precalculus. You may know that developmental mathematics has been under attack for a lack of evidence for benefits; the data for precalculus may be even worse than that for developmental mathematics.

In the newest **CUPM Curriculum Guide**, the MAA CRAFTY team presents a summary of much of the criticism of our curriculum ... along with directions to consider for saving mathematics. Their site

[http://www2.kenyon.edu/Depts/Math/schumacherc/public\\_html/Professional/CUPM/2015Guide/CUPMDraft.html](http://www2.kenyon.edu/Depts/Math/schumacherc/public_html/Professional/CUPM/2015Guide/CUPMDraft.html) has a chapter on calculus courses.

The National Academy Press published **Mathematical Sciences in 2025** (available at <http://www.nap.edu/catalog/15269/the-mathematical-sciences-in-2025>), a broad overview of the future of undergraduate mathematics. Although not directed at any specific course, the chapters in this book highlight modern trends; much is said concerning numerical methods.

A "**Common Vision**" project (MAA, AMATYC, and others) has a report which also speaks to the curriculum in the first two years

([http://www.maa.org/sites/default/files/pdf/common-vision/common\\_vision\\_final.pdf](http://www.maa.org/sites/default/files/pdf/common-vision/common_vision_final.pdf)).

This report summarizes many of the needs for renewal of our curriculum.

Our client disciplines have needs which are not met by mathematics courses ... which results in important mathematics being taught in non-math courses (or not taught at all). Biology majors are learning about matrices and modeling in their biology courses, even though these students are required to take at least one semester of calculus. Engineers have been using a mix of symbolic and numeric methods for many years; they are not getting the numeric methods from us, in general. For all client disciplines, the theme is "very diverse mathematical background"; a list for engineering is at

[http://www.efunda.com/math/math\\_home/math.cfm](http://www.efunda.com/math/math_home/math.cfm) .

### **A call to action in Michigan**

We need to get a renewed focus on purpose in the curriculum. Precalculus courses in Michigan are not preparing students for calculus; calculus courses are not preparing students to use mathematics in either their STEM program or on the job. In addition, we have an inefficient design that can involve 4 or 5 courses at the college level (3 calculus courses, plus possibly 1 or 2 prerequisite courses); acceleration is just as important at the college level as it is at the developmental level.

Consider this alternative model:

- ❖ One semester precalculus as the standard, made more rigorous with a focus on 'need for calculus'
- ❖ Two semesters calculus as the standard, including differentiation, integration, multiple variable, and numeric methods, made possible by eliminating the massive clutter in our current courses

Because of how Michigan structures higher education, mathematics faculty have considerable control over the curriculum and articulation. We have many reasons to undertake a renewal of our curriculum; the two chief reasons are "meet student needs" and "teach good mathematics".

This work depends upon a diverse group collaborating on this exciting process. Please consider participating. If you are interested, please contact me ([rotmanj@lcc.edu](mailto:rotmanj@lcc.edu)) ... whether you want to be involved in the work or be a leader for the work.

∞∞∞∞

### **Join the AMATYC Placement and Assessment Committee!**

The **purpose** of the Placement and Assessment Committee is to serve as a resource for the AMATYC membership on issues related to placement and assessment of student outcomes and mathematical programs.

The **Goals** of this committee are:

1. Promote opportunities for educators to gain a deep understanding of best practices in placement and assessment implemented as per the standards recommended by the AMATYC.
2. Encourage mathematics educators in conducting webinars focused on building familiarity and understanding of the core standards of placement and assessment practices by examining strategies, models and contexts that support their implementation.
3. Maintain and update position statements on issues related to assessment and placement.

**Please consider joining our committee, we would love to have you on board in order to use your expertise and insights!** So, you might ask what the benefits of joining this committee are. As a member you will have access to:

- The Placement tools used around the country and a quick comparison between all.
- Articles on classroom assessment techniques.
- The approved position statements.
- Repository of sample assessment tools used along with their corresponding rubrics for different courses located in Google Drive.

Do you want to be part of this committee but do not know how to join? Send an email to the committee chair, Behnaz Rouhani at [behnaz.rouhani@gpc.edu](mailto:behnaz.rouhani@gpc.edu) to receive the know-how information.

October 14-15, 2016 Delta College

Michigan Mathematical Association of Two-Year Colleges (MichMATYC) Annual Conference

[www.michmatyc.org](http://www.michmatyc.org)

Delta College: University Center, Michigan (near Bay City/Midland/Saginaw)

**FIRST call for presenters. It is a pleasure to invite YOU to speak at this year's conference. We will highlight the various ways and methods of teaching mathematics to undergraduates. Topics of interest to both college educators and high school educators are our 2016 focus.**

**The Topics of Particular Interest:**

**ACCESSIBILITY**

Share your experiences/expertise in this critical area.  
Who needs a modified environment?  
What is the law regarding ADA, Sections 504/508 and Title IX?  
How can an equal and sound educational experience be offered?

**COMMON CORE**

What math skills are high school graduates bringing to college?  
What math skills are high school students supposed to have but, in fact, do not have?  
Should developmental education be offered at the college level?

**DUAL ENROLLMENT**

What math skills are dual enrolled students bringing to college?  
Is dual enrollment just a way to shift K-12 teaching to the colleges?  
What do high school teacher believe dual enrollment should achieve?

**FLIPPING**

What are some effective strategies?  
Comparisons/ what works and what doesn't work?

**OPEN EDUCATIONAL RESOURCES**

What is available? How have they been used? How can they be used?  
What has worked and what hasn't?

**PATHWAYS**

What mathematics courses are needed for an efficient, yet effective, college journey?  
What paths are needed? STATS, STEM, LIBERAL ARTS, TRADES ...

**SOFTWARE APPS**

What is available for use in our classrooms?  
What has been tried and how can technology be better and more efficiently utilized?

Pros and cons of the calculator, of the cellphone, of clickers, of social media...

### STUDENT STORIES

Share some student success stories - service learning or special projects or group projects.

What projects and experiences outside of the classroom have been used?

How has writing been successfully incorporated into the classroom?

Are students doing math beyond the basic manipulation of numbers and symbols?

### MATH GROUPS

What do our (math) organizations do and should they do more/less?

What are some current projects/issues from AMATYC, MAA, NADE, ETOM, ...

#### Guide for Presenters:

- \* Restrict your presentation to **20** dynamic, fast-paced (but not rushed!) **minutes**.
- \* All presentations will be given on Saturday, October 15.
- \* For first consideration, please submit a **brief description** of your topic, including the focus area.
- \* Deadline for *first* consideration: **March 31, 2016** Send to: [maryroberson@delta.edu](mailto:maryroberson@delta.edu)
- \* Would you be willing/able to serve on an EXPERT panel in one of the above focus areas?

#### More Details To Come!!! Watch for registration and professional development information.

Professional development activities, including a **fantastic tour** of a local mathematically-oriented enterprise and a **hands-on** experience with the Delta College million dollar STEM mobile lab, are in the works. **CEU credits** may be available for participation in the Friday activities.

Plan to join your colleagues on Friday night for an **unforgettable** dinner and hotel experience in Bay City.

Questions?? Please contact Mary Roberson at [maryroberson@delta.edu](mailto:maryroberson@delta.edu) or (989) 686-9116.

