TexMATYC News

Texas Mathematical Association of Two-Year Colleges Fall 2012

President's Message

By Sharon Sledge, San Jacinto College.

CHANGE IS COMING!

The fall semester always carries a sense of excitement, an air of anticipation and a hope to succeed for both students and faculty—it is time for a new beginning.

This fall adds new elements of change—change in how we think about our mathematics courses, including curriculum, sequencing, format, etc. As we work to improve our courses and our teaching to help more students be successful, there have been signs that major changes are coming.

This academic year, the 83rd Legislature will convene and decide how our state funding model will change. Although this is not a new topic, the impact to mathematics is new. Rumors abound! There are possibilities of decreasing the number of developmental math courses that colleges are allowed to offer—state funding may be tied to students completing a developmental math course and more funding may be tied to students completing a college-level math course—a new entering placement exam is being created for Fall 2013 with a non-negotiable cut-off score for placement into college-level math courses—graphing calculators will be required for the placement exam—new student learning outcomes have been created for mathematics courses in the Academic Course Manual—the list goes on.

In response to these changes, all 50 of the state's independent community colleges that are members of the Texas Association of Community Colleges (TACC), have signed an agreement to support the UT Dana Center's New Mathways Project for the state of Texas (www.utdanacenter.org/mathways). This project is a systemic approach to reforming developmental education. It will enable students to take fewer math courses. Further, the math courses they take will directly align with their majors and with the requirements for their future careers – choices include statistics, quantitative literacy and STEM. Students in STEM programs will take a redesigned course sequence to prepare them for calculus. (NOTE: The New Mathways Project is separate from, but builds on, the previous Carnegie Statway and Quantway projects.) For more information, attend the webinar on November 1st at 2 P.M. RSVP Today. Attendance is limited to 55 "seats," but you can attend virtually in groups and occupy only one seat (isn't technology wonderful?) Email mmolina@tccta.org with your name, college/institution, and number of attendees sharing a work station (if applicable). Also, plan to attend the TexMATYC/TCCTA conference, Feb. 21 - 23 in Houston, for all the latest information and to provide your input.

Redesign is the new buzz word! Is your college in the process of redesigning developmental and academic math courses? Have you tried some innovative and creative techniques that are working? Are you considering offering a new formatted course? This is the

Contents:

time to share your successes! Let your colleagues know what is working. Send an article to be included in the TexMATYC newsletter.

At some point, almost all of us have told our students, "Math is not a spectator sport!" On that note, stay informed and become involved! Ask your administration what they are doing. Let your voice be heard! Change is everywhere. So far there is no proposal to change the mathematical order of operations, but you never know...

TexMATYC Membership

By Cynthia Martinez, TexMATYC Vice President

Welcome back for the 2012-2013 academic year.

Many developments have occurred over the course of this past year that could impact you and your curriculum. One of which is the pilot program New Mathways Project (NMP), created by The Charles A. Dana Center at The University of Texas at Austin with the support of TACC. This year will be a legislative year, and our voice needs to be heard at the state. With your involvement, we can make a difference! This is one of many reasons to join TexMATYC!

I realize that you have options when it comes to joining a mathematics organization in order to keep up with the latest changes in math curriculum. If you are a member of AMATYC, TexMATYC is an affiliate organization. We are two organizations, one aimed at the national level in mathematics, while the other is focused on what is going on at our state level.

TexMATYC is a non-profit, educational association whose purpose is to:

- Encourage the development of effective mathematics programs
- Afford a state forum for the interchange of ideas
- Further develop and improve the mathematics education and mathematics-related experience of students in two-year colleges
- Promote the professional welfare and development of its members
- Provide the opportunity to study and keep abreast of new trends in mathematics
- Promote professional cooperation and communication between teachers and administrators for the realization of sound educational achievements
- Promote support for and involvement in the American Mathematical Association of Two-Year Colleges

Still haven't decided if you should join? Here are the top five reasons to join TexMATYC:

1. You have access to TexMATYC newsletter three times per year, updating you on the latest issues in Texas!
2. We meet at least once per year. If you attend TCCTA in February 2013, what better way to get a two-fer-one – TexMATYC sets the math agenda based on what you want to know about!
3. Affordable annual membership dues – Just $10 !!
4. Collegiality!
5. Collegiality!

So, what are you waiting for? Go to http://texmatyc.org/ and select "Become a

Member!" Follow the directions for joining or renewing your membership by either paying online safely and securely with PayPal or a major credit card, or download a form to fill out and send to your campus representative or Habib Far (mail to Lone Star College – Montgomery, 3200 College Park Drive, Conroe TX 77384).

Don't forget about our annual conference that is held in conjunction with TCCTA convention. This year it will be held at the Houston Galleria Westin Hotel in February 2013. Using great ideas can create a good learning atmosphere which in turn can produce good quality students!

Hope to see you at the next TCCTA/TexMATYC convention in February 2013.

From the AMATYC VP

By Kathryn (Kate) Kozak, AMATYC Vice President for the Southwest Region

I hope that your year is off to a great start and that if you are not a member of the American Mathematical Association of Two-Year colleges (AMATYC) you consider becoming one! AMATYC has many exciting activities that you may participate in as an AMATYC member. The Annual AMATYC Conference, a series of webinars, and the AMATYC committees offer many opportunities for you to network with your peers across the United States and Canada and expand your mathematical knowledge. In addition, AMATYC members receive the *AMATYC News* and *MathAMATYC Educator* publications during the year.

If possible, please join me in Jacksonville, Fla. for the 38th Annual AMATYC Conference to be held November 8-11. The mini program and other information about the conference are available online at www.amatyc.org/Events/conferences/2012Jacksonville/index.html. The theme of this year's conference is *River-of-Knowledge, Ocean-of-Dreams* and is sure to offer many opportunities for professional development and networking. There are exciting new changes this year, including a conference app for your mobile device and a streamlined check in. See the October issue of the AMATYC *News* for more information about these. In addition, there is a Research Pre-session on Wednesday hosted by the Research Committee (RMETYC) www.amatyc.org/Events/conferences/2012Jacksonville/RMETYCcfp.pdf, and the Innovative Teaching and Learning Committee is hosting an Ignite event on Friday night, www.amatyc.org/Events/conferences/2012Jacksonville/igniteevent.pdf. If you are a first-time attendee to the AMATYC conference, a reception will be held in your honor on Thursday evening, November 8 from 5 until 6 p.m. Our Southwest regional meeting and luncheon will be held on Friday, November 9 from 11:45 a.m. until 1:15 p.m. I hope to see each of you there.

AMATYC has offered a series of free webinars for its members. If you want to see past webinars, you can find them on YouTube by going to www.amatyc.org/publications/webinars/index.html and clicking on the appropriate link. Watch your email for future attractions!

If you would like to be more involved in mathematics education nationwide, AMATYC has nine committees you can join. These are Developmental Mathematics, Division/Department Issues, Innovative Teaching and Learning, Mathematics for AAS Programs, Statistics, Mathematics Intensive/College Mathematics, Placement/Assessment, Teacher Preparation, and Research in mathematics Education for Two-Year Colleges. Although the committees meet annually in person at the AMATYC conference, they do most of their work during the year through emails, websites and

Google groups. Read more about the committees at www.amatyc.org/committees/index.htm. Contact information for each committee chair is listed on the website.

There are many ways to be involved in AMATYC. Currently, AMATYC is looking for several individuals to take on exciting positions within the organization. These include the Professional Development Coordinator, the *Math*AMATYC *Educator* editor, the Traveling Workshops Coordinator and Grants Coordinator. All of these positions are important to keeping the organization growing. If you would like to be on the AMATYC Board, elections will be held next year. Consider running for an office. The open positions are President-Elect, Secretary, and the eight regional VP's. I can tell you that serving on the Board is a rewarding experience that I have enjoyed. Information about all of these positions can be found in the August 2012 or October 2012 AMATYC *News* (published around October 21st).

On last thing, nominations for the Teaching Excellence (TE) Award are due December 6, 2012. You probably know that incredible instructor that never gets the recognition that they deserve. Please consider nominating them. Information can be found at www.amatyc.org.

If you are already a member of AMATYC, you are well aware of what AMATYC has to offer. If you are not yet a member, I encourage you to visit the website at www.amatyc.org and become a member.

I hope to see you in Jacksonville!

Kathryn (Kate) Kozak
AMATYC Vice President for the Southwest Region
Kathryn.Kozak@COCONINO.EDU

How the Academic Course Guide Manual Impacts the Classroom

By Cynthia Martinez, TexMATYC Vice President

In spring 2012, we noticed some changes in the ACGM. These changes take effect after the conclusion of the spring, meaning they are now effective. Let's start with College Algebra. The course description states "In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included". The learning outcomes consist of the following:

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses;
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations;
3. Apply graphing techniques;
4. Evaluate all roots of higher degree polynomial and rational functions; and
5. Recognize, solve and apply systems of linear equations using matrices.

Bear in mind that the course description, as well as the learning outcomes, is the minimum that **must** be covered in every classroom in the state of Texas. Yes, the minimum. Some of you may think that this is all that you will need to cover, but nope. You are welcome to continue covering topics that are not mentioned as well as your department stating additional learning outcomes. Now, let's take a look at Pre-Calculus. The course description states "In-depth combined study of algebra, trigonometry, and other topics for calculus readiness". The reason for this vague description is that the committee who reviewed this course saw a plethora

of topics covered across the colleges and universities. The committee, taking into account the best interest of the IHEs throughout the state of Texas, decided to incorporate what should be covered by stating them in the learning outcomes. The learning outcomes consist of the following:

1. Demonstrate and apply knowledge of properties of functions;
2. Recognize and apply algebraic and transcendental functions and solve related equations;
3. Apply graphing techniques to algebraic and transcendental functions;
4. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians;
5. Prove trigonometric identities; and
6. Solve right and oblique triangles. I agree with what many of you are thinking, "I cover more than what is listed".

Recall that you are able to cover what you traditionally do, as long as the course description and learning outcomes is a subset of your current curriculum. Additionally, you can cover other topics that best prepare your students for the Calculus sequence. Take time to read over the current course descriptions and learning outcomes. The THECB plans to bring together some working groups to finish out any courses that still require learning outcomes at a later time. In the meantime, your department is expected to put together their own learning outcomes for the courses which currently do not have one.

You will notice that the developmental math courses are now located in their own area of the guide. When you open up to that section of the guide, you will see that a Student Success description and learning outcomes are listed. The intermediate algebra working group met over the summer to put together learning outcomes. The learning outcomes were posted for public comment, which ended on September 17, 2012. The working group will read through the public comments and provide guidance to final draft of the learning outcomes. Look for the finished product in the next edition of the ACGM.

Prep for Academic Student Success (PASS)

Palo Alto College Research Brief

ALAMO COLLEGES
PALO ALTO COLLEGE

Prepared by Patrick Lee, Chair of Mathematics at Palo Alto College

Policy Implications:
Placement exam preparation courses should be provided to all students prior to taking college placement exams. These courses help reinforce necessary skills and help educate students on the significance of the placement exams. As a result of the preparation provided through these classes, students can potentially bypass one or more developmental courses in Mathematics, saving both time and money.

Background/Problems/Opportunities:
In March 2010, the Alamo Colleges were awarded a grant from the Texas Higher Education Coordinating Board (THECB) for the purpose of establishing an accelerated developmental education option for students who place, based on their Accuplacer placement scores, into Developmental Mathematics. With the goal of accelerating students through, and beyond, Developmental Mathematics in mind, Palo Alto College, in conjunction with the other Alamo Colleges, has implemented Prep for Academic Student Success (PASS).

The PASS program is a 15-hour math refresher course designed to improve upon students' math skills and provide a greater opportunity for success on the math portion of the Accuplacer placement exam. The goal of the PASS program is to decrease the number of developmental math courses that Alamo College students, particularly Hispanic students, will be required

to take and to decrease the amount of time it will take these students to complete TSI (Texas Success Initiative) requirements for math.

Intervention/Program:
Students participating in the PASS program attend a one week-long, 15-hour session that is comprised of no more than 20 students each. At the beginning of each session, Pearson Publishers' MyMathTest software is used to diagnose students' deficiencies. This diagnosis determines the level of remediation each student will receive during their PASS session. After this is determined, students use MyMathTest to work through the material they have to master before advancing to subsequent math courses. A faculty member is available during each session to answer questions on a one-on-one basis as student's progress through MyMathTest concepts and problems. After each PASS session is complete, students retake the Accuplacer placement exam to determine the progress that they have made. If a PASS student scores 85 or higher on the Elementary Algebra portion of the Accuplacer, they will be allowed to bypass all developmental math courses and enroll in College Algebra or an equivalent course. If a student falls below 85, academic counselors/advisors help the student determine the level of developmental math the student will need.

Results:
The following tables display the data collected from PASS courses offered at the Alamo Colleges from March 2010 through December 2011.

- The following table gives the total number of students advancing 0, 1, 2, 3, or 4 classes based on the total number of students who completed the PASS sessions:

Number of students who completed a PASS session	Number of students advancing:				
	0 courses	1 course	2 courses	3 courses	4 courses
1489	561	492	316	111	9

- The following table gives the total number of students advancing into Math 0301 (our second level of Developmental Math), 0302 (third level), 0303 (fourth level), or 1314 (College Algebra) based on the total number of students who completed the PASS sessions:

Number of students who completed a PASS session	Number of students advancing into:			
	Math 0301	Math 0302	Math 0303	Math 1314
1489	152	272	340	164

- The following table gives the percentage of students advancing 0, 1, 2, 3, or 4 classes based on the total number of students who completed the PASS sessions:

Percentage of students advancing at least one course	Percentage of students advancing:				
	0 courses	1 course	2 courses	3 courses	4 courses
62.3%	37.7%	33.0%	21.2%	7.5%	0.6%

- For the 815 students who advanced at least one course after completing a PASS session (from those offered from March 2010 through December 2010), the following table gives the success data for their first math course, taken immediately upon completion of PASS.

# of students enrolling in follow-up course	# of students successfully completing (A, B, or C) follow-up course	# of students who failed follow-up course	# of students who withdrew from follow-up course	% of students successfully completing (A, B, or C) follow-up course	% of students who failed follow-up course	% of students who withdrew from follow-up course
341	258	18	35	75.7%	5.3%	10.3%

Why TexMATYC, AMATYC and TCCTA Membership?

By Paula A Wilhite, Northeast Texas Community College

- Annual conferences providing professional development for math educators in curriculum and reform
- Representation of higher education programs for policies and legislation effecting two-year colleges
- Journals and newsletters with updates of news and information about the organizations

- Connections and networking of professional educators

All three professional organizations, TexMATYC, AMATYC, and TCCTA, serve the Texas group of mathematics educators in uniquely important ways. Your memberships in TexMATYC and AMATYC communicate your dedication to your profession as a math educator. Innovations and changes in curriculum and pedagogy are channeled through these two organizations. Furthermore, AMATYC represents you in the mathematics community, in particular, on the Conference Board of the Mathematical Sciences and the Mathematical Science Education Board. TexMATYC representatives participate on various statewide initiatives in mathematics education.

Above all, TCCTA is the major source of influence in the Texas legislature for two-year colleges. According to executive director Richard Moore, "It is vitally important that we maintain large memberships to sustain our credibility with legislators." He added that "being able to activate our network of engaged members often makes the difference in policy outcomes on issues we all care about." Through the networking, members are connected by professional development opportunities in their field and gain a sense of community across the state.

TexMATYC works for you at the *state level* and AMATYC works for you at the *national level* as the professional organizations of mathematics education at two-year colleges. In addition, TCCTA works for you at the *state level* as the *multi-disciplinary* advocate for community colleges. Because of their significant and different contributions that count toward our success, it is *important* that you join the ranks of educators who are members of all three organizations. The magnitude of our memberships measures the strength of our voice across our state and nation.

Together we can make a difference!

Treasurer's Report

By Habib Far, TexMATYC Treasurer

TexMATYC Annual Financial Report For 2012
Mid Year

Description	Expenses	Income
Previous Balance		$9,588.58
Membership		$90.00
Membership(Paypal)		$154.08
Interest		$4.05
Darian Lee (SML Winner)*	$250.00	
Balance		$9,586.71

TexMATYC will be reimbursed for $250 by a donation

Joke of the Month

Instructor: Where do you see Roman numerals these days?

Student: Clothing sizes - M, L, XL.

Got News?

If you know of any exciting news in mathematics, have it published in your TexMATYC newsletter. Submit articles to Heather Gamber at heather.a.gamber@lonestar.edu.

Visit us at www.texmatyc.org