



# TexMATYC News

Texas Mathematical Association of Two-Year Colleges  
Affiliate to the American Mathematical Association of Two-Year Colleges

Fall 2005

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

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## TexMATYC

### Pre-conference workshop

*Westin Galleria Houston*

*Thursday February 23, 2006*

Plan now to attend the pre-conference workshop prior to the TCCTA/TexMATYC conference next February. Dr. Don Allen from Texas A&M University will be presenting material on visual methods for teaching algebraic ideas entitled "Visual Algebra and Pre-calculus". A free CD with software and materials will be distributed to all participants. Participants are welcome to bring their laptop and follow along. The workshop will be held at the Westin Galleria Hotel in Houston on Thursday Feb. 23, 2006. More information, including a registration form, are provided at the back of this newsletter.

This workshop is sponsored by TexMATYC with rooms provided by TCCTA. Additional sponsorship is provided by several textbook publishing companies.

## 2006 TCCTA/TexMATYC conference

*Westin Galleria Houston*

*February 24-25, 2006*

Proposals for the conference are now being accepted online at the TexMATYC website [www.texmatyc.org](http://www.texmatyc.org). As before, we will have breakout sessions on Friday afternoon, as well as sessions in conjunction with the TCCTA conference on Friday and Saturday morning. The deadline for proposals is October 1, 2005.

## Proposed 2007 SW Regional Conference

Preliminary plans are being made for the **2007 Southwest Regional Conference** to be held in **San Antonio**. The conference is a collaborative project between the four state affiliates with each state sharing in the planning and preparation of the conference. In September, the proposal will be sent to the AMATYC board for approval. Texas is in charge of local arrangements. **Gerald Busald** from San Antonio College and **Kathleen Mittag** from the University of Texas at San Antonio have been helping secure arrangements for conference housing.

Thanks to everyone for sending in recommendations for a theme. The theme will be announced soon. If the proposal is approved by the AMATYC Board, which is expected to occur, we will be looking for assistance prior to and at the conference. If you would like to assist, a sign-up sheet will be available at the 2006 TCCTA/TexMATYC Conference.

## President's Message

Linda Zientek, Blinn College



The TexMATYC Board would like to welcome everyone. We are very pleased the membership continues to grow. While we continue to investigate ways to serve our members, we continue to welcome and encourage ideas to help TexMATYC fulfill the goal of improving mathematics education.

The TexMATYC/TCCTA conference is scheduled for February 23 –25, 2006 in Houston. We encourage you to submit a **proposal** to present at the conference. This year's featured speaker will be Dr. George "Pinky" Dr. Nelson was a NASA astronaut from 1978 to 1989 and is a veteran of three space flights on the Challenger, Discoverer, and Columbia. Currently, Dr. Nelson (current bio) serves as the director of Science, Mathematics and Technology Education at Western Washington University. He has also served as the director of Project 2061 and as a senior staff member of the American Association for the Advancement of Science.

Conference proposal forms can be accessed online via the TexMATYC website or directly at <http://www.texmatyc.org/meetings/confproposal.html>. The proposal deadline is **October 1, 2005**. We encourage you to submit a proposal and look forward to seeing each of you at the conference. We are very excited about the variety of presenters and believe everyone will find a topic of interest to them. We look forward to seeing everyone in Houston next February.



In response to the fall survey, the TexMATYC board had the first online professional development workshop and the first pre-conference workshop at the TCCTA/ TexMATYC Conference. **Don Allen** will offer both an online workshop this fall and the pre-conference workshop. The TexMATYC Funding Committee has been established and in October, **Uri Treisman**, director and **Gloria White**, managing director of the Charles A. Dana Center, will offer training on how to acquire funding for future workshops and speakers. A committee is working to develop a survey to determine what topics and how these topics are taught in college algebra. The survey will be distributed either this fall or spring. If you are interested in serving or helping with the organization, please feel free to contact a board member.

Linda Reichwein Zientek

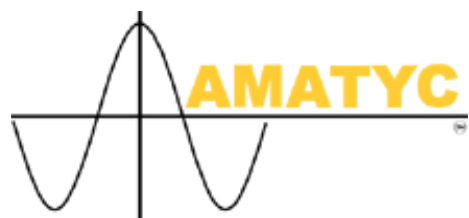
## Campus News

### Cy-Fair College

Cy-Fair College (NHMCCD) is pleased to have Dr. Michael Granado join the Mathematics Department's full-time faculty. He was born in Trinidad and obtained his Ph.D. in Mathematics from Auburn University, AL, in 2004. His specialty is Topology. Cy-Fair College is currently conducting a search for a full-time Transitional Mathematics instructor to start Spring 2006. See the job seekers link at [www.nhmccd.edu](http://www.nhmccd.edu), position number 80287, for more information.



Send campus news to the  
Newsletter Editor for  
inclusion in the Fall  
newsletter.



## From the Desk of Mary Robinson AMATYC Southwest Regional Vice- President

Greetings to TexMATYC Members,

It has been so exciting over the last four years to watch TexMATYC grow into the vibrant and strong affiliate that it has become. You are to be commended for having had the insight to select Executive Board members that have put TexMATYC at the forefront of their interests and worked very hard to involve TexMATYC members in the activities and operations of the organization. Providing services and benefits to its members is critical in strengthening any organization and TexMATYC has been able to do so much of that. One of the most exciting of these services was the Online Workshop that was offered last April, and will be offered again in this Fall, that make them excited to belong to such a great organization.



As I am sure you are aware, each affiliate of AMATYC is represented in AMATYC and at the Delegate Assembly by at least two affiliate delegates—the Affiliate President and another chosen by the affiliate. That number can be increased if the intersection of AMATYC members and affiliate members reaches 50. At the present time, TexMATYC has an intersection of approximately 46 members. This spring we will be doing an intersection count to determine the number of Affiliate Delegates for the next two years. I strongly urge those of you who are TexMATYC members but not AMATYC members and vice-versa, to consider joining the organization you do not belong to yet and make that intersection of AMATYC and TexMATYC members increase to well over 50, so that additional delegates can be assigned for the coming two years. I did a little count, and if all the AMATYC members in Texas were also members of TexMATYC, your affiliate could have not one, but two additional Affiliate Delegates! If you are considering joining either AMATYC or TexMATYC (and if you aren't you should be) please consider doing that within the next several months. Doing so could greatly benefit TexMATYC with the increase in Affiliate Delegates.

Finally, I want to invite all of you to attend the 31st Annual AMATYC Conference to be held in San Diego, California, **November 10—13, 2005**. This is going to be a wonderful conference and it would be great to see many of you there. You can get more information on the conference at the AMATYC website at <http://www.amatyc.org>. Don't forget that the deadline for the discounted early registration is coming up soon on **September 30**. I look forward to seeing you in November.



## Understanding Angles

John Edgell Jr., je02@txstate.edu  
Texas State University

**Abstract** (For the full text of the paper, visit [www.texmatyc.org](http://www.texmatyc.org))

Several years ago, while involved with an academic year formative field research study related to gifted and talented fifth graders accessing ideas of geometry, the author noticed difficulties with cognitively accessing, processing, and applying ideas about angles. Since then the author has pursued studying these issues with students at all levels starting at grade k through grade 12 and similar issues with pre-service elementary, middle school and secondary school teachers through teaching and with in-service teachers through workshops, etc.

The research has identified three sequential avenues that seem to enhance others to better understand and apply ideas associated with angles: global, right angles, and metric units. These avenues apply across the dimensions of angles and this paper specifically addresses two and three-dimensional angles with suggestions and references to four-dimensional angles thus suggesting a pattern and hinting at substantial mathematics. In addressing the sequence a constructionist style involving hands-on manipulative objects and guided discoveries is initially advocated with a trend towards a more abstract indirect approach becoming a goal. Consequentially, the paper is based upon direct research with students combined with a pedagogical teaching/learning interaction which is suggestive of teaching strategies.

The paper is written to not only be informative for professionals but hopefully also for those with a modest level of mathematical sophistication. The language may seem to be a bit stilted. Some aspects of the language are necessary to try to address those who tend to lift sentences out of context and some aspects address a certain level of integrity related to discussing mathematics/geometry. Those who engage with sharing ideas, mathematical or otherwise, know better than most of us about the importance of having consistent and structural reference terms for the young less sophisticated learners. Consequently references to geometrical objects in the paper are in terms of the number of facets and category of a geometric object.

In the process of writing the paper the author had to acquire technological skills as well as organize, examine, and refine what has been accumulated over several years and has gradually assumed coherent structure. As always, the author subscribes to the idea that research, sharing such research, and teaching and learning all go hand-in-hand and are a professional responsibility. The opportunity to put these ideas into a somewhat organized format has been challenging and exciting and hopefully others will benefit and share.

By the way, if anyone out there knows how to determine/calculate the measure of a fourth-dimensional simplex angle, the author would appreciate enough hints so that the author could perhaps be guided to discover the algorithm and continue.



### Submit a TexMATYC Teaching Excellence Award nomination today!

Show your respect for your colleague, your profession, and yourself by nominating an outstanding teacher for the TexMATYC Teaching Excellence Award. This statewide prestigious award is given each year to a deserving individual who is an exceptional teacher and a valued member of the profession.

TexMATYC awardees receive \$100 which includes an individual membership in AMATYC. Awards will be announced at the TexMATYC business meeting in February. In addition, TexMATYC will forward the awardee's nomination packet to the national AMATYC Teaching Excellence Award, which is given in odd-numbered years.

Former awardees are Shirley Thompson, North Lake College, Paula Wilhite, Northeast Texas Community College, Peg Crider, Tomball College, and Chip Galloway, Collin County Community College. All three awardees have the honor of presenting at the following year's TCCTA/TexMATYC conference.

By recognizing our best teachers, we emphasize the significance of our efforts, the importance of our profession, and the value of the professional goals to which we all aspire. So, please take the time to submit a nomination. Forms are included in this newsletter and on the TexMATYC website.

# Let's Keep on Growing!

**Paula Wilhite, Vice President**



The 2005-2006 TexMATYC membership drive has been launched with the help of 35 campus representatives across the state. After a banner year of growth in 2004-2005, the TexMATYC membership count is 160. We all appreciate the great job that each campus representative has done. Because of your involvement, we doubled our membership last year!

In August, the executive board approved a new lifetime membership for \$100. The board also extended the current membership dues of \$5 annually. Expired memberships should be renewed by October 1. Members are listed with expiration dates on the TexMATYC website at [www.texmatyc.org](http://www.texmatyc.org). You can also find membership forms to download and send to TexMATYC treasurer, Habib Far, at the address on the form. Your membership in TexMATYC is an important way to show your support for mathematics education in Texas. Likewise, your membership in AMATYC is indicative of your support for mathematics education on a national level.

A current list of campus representatives is given here. We want to increase the number of campuses that are served. If you are interested in volunteering, please contact Paula Wilhite. I hope to hear from you soon.

## College

Amarillo College, Amarillo  
Austin Community College—Cypress Creek Campus  
Austin Community College—Rio Grande Campus  
Blinn College—Brenham, Brenham  
Blinn College—Bryan, Bryan  
Central Texas College, Killeen  
Cisco Junior College, Cisco

College of the Mainland, Texas City  
Collin County Community College District, Plano  
Cedar Valley College, Lancaster  
Eastfield College, Mesquite  
Mountain View College, Dallas  
El Paso Community College—Transmountain Campus  
Houston Community College—Southwest  
Howard College, Big Spring  
Lamar Institute of Technology, Beaumont  
Lamar State College—Orange, Orange  
Laredo Community College, Laredo  
Lee College, Baytown  
Navarro College, Corsicana  
Cy-Fair College, Houston  
Kingwood College, Kingwood  
Montgomery College, Conroe  
North Harris College, Houston  
Tomball College, Tomball  
Northeast Texas Community College, Mount Pleasant  
Paris Junior College, Paris  
San Jacinto College—Central, Pasadena  
South Plains College, Levelland  
Tarrant County College—Southeast, Arlington  
Temple College, Temple  
Texarkana College, Texarkana  
Texas State Technical College—West Texas, Sweetwater

## Campus Representative

Diana Johnson, [johnson-dl@actx.edu](mailto:johnson-dl@actx.edu)  
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## **TexMATYC Executive Board**

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**Mel Griffin**  
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**Mary Robinson**  
AMATYC Southwest VP  
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maryrobn@unm.edu

Check us out at  
[www.texmatyc.org](http://www.texmatyc.org)

## *Dates to Remember!*

**Proposals for 2006 TexMATYC conference  
October 1, 2005**

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**AMATYC Annual Conference  
November 10-13, 2005  
San Diego, CA**

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**Nominations for  
TexMATYC Teaching Excellence Award  
December 15, 2005**

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**TexMATYC Pre-conference workshop  
Visual Algebra and Pre-Calculus  
February 23, 2006  
Houston, TX**

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**TCCTA/TexMATYC Conference  
February 24-25, 2006  
Houston, TX**

### **Sam Houston State University Mathematics Education Position Announcement for 2005-2006**

The Department of Mathematics and Statistics is seeking to fill an assistant/associate tenure-track position in mathematics education. Candidates must have the equivalent of a master's degree in mathematics and hold a doctorate in mathematics education or equivalent. Teaching, service, and scholarly activities are required. Preference will be given to candidates who have a demonstrated record of research in mathematics education. Public school teaching experience is preferred. The review will begin November 1, 2005, and continue until the position is filled. Submit a letter of interest, full curriculum vitae, transcripts, and three letters of reference to: Mathematics Education Search Committee, Department of Mathematics and Statistics, Sam Houston State University, Box 2206, Huntsville, TX 77341-2206 or email [jasper@shsu.edu](mailto:jasper@shsu.edu) for information. Sam Houston State University is an EEO/AAP employer.





# Visual Algebra and Pre-Calculus

Visual Methods for Teaching Algebraic Ideas  
A TexMATYC sponsored Pre-Conference Workshop  
By Don Allen, Texas A&M University

Thursday, February 23, 2006

11:00 am – 5:00 pm

Westin Galleria Hotel

5060 West Alabama, Houston, Texas

## Topics Covered

Graphs and more graphs

Making, annotating, and displaying graphics

Concept mappings

Explaining interconnections through visual mappings

Digitizer

Integrating a digital camera and functions

Functions with Excel

Interactivity you can create

Math in the Movies

1. Counting
2. Pythagoras in Oz
3. Take me out to the ball game.

4. Did they get it right?

5. Calculus, anyone?

6. The Die Hard problem

7. Higher mathematics

Making animations

Animations via Maple and other tools

Free software

Winplot and more

A free CD with software and materials will be distributed to all participants. You are welcome to bring your laptop and follow along.

WORKSHOP COST  
(lunch included)

\$35 for TexMATYC members

\$40 for non-members

(\$5 can be applied to TexMATYC  
Membership)

**Seats are limited.  
Apply early!**

For more information,  
please contact::

Linda Zientek  
TexMATYC President  
lzientek@blinn.edu  
979-830-4437

## SPONSORS



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## Registration Form

### Visual Algebra and Pre-Calculus TexMATYC pre-conference workshop February 23, 2006

Name \_\_\_\_\_

Institution \_\_\_\_\_

Mailing Address \_\_\_\_\_

\_\_\_\_\_

Phone number \_\_\_\_\_

Email address \_\_\_\_\_

TexMATYC Membership Status: \_\_\_\_\_ Member \_\_\_\_\_ Non-Member

Amount Enclosed \_\_\_\_\_ (\$35 for TexMATYC members, \$40 for non-members)

If non-member, would you like to apply \$5 of your registration fee towards a one-year TexMATYC membership? \_\_\_\_\_ Yes \_\_\_\_\_ No

Make checks payable to TexMATYC.

Mail completed registration form and payment to:

Habib Far – TexMATYC Treasurer  
Montgomery College  
3200 College Park Dr.  
Conroe, TX, 77384



2006 TexMATYC Award for Teaching Excellence  
Submission Deadline: December 15, 2005

Nominees must have a minimum of five years teaching experience with the last two years in Texas. The nominee's primary assigned duties must be delivering instruction in an associate's degree program. Teaching excellence is the main focus of this award. Individuals can win the award only once. Nominees may not be on the AMATYC or TexMATYC Board or nominated by an AMATYC or TexMATYC Board member. The award will be \$40 plus a \$60 individual membership in AMATYC for the year your nomination will be sent on to AMATYC. The Award winner will be announced at TexMATYC official meeting held in conjunction with TCCTA. All TexMATYC awardees will be nominated for AMATYC Teaching Excellence Award, which is given in odd-numbered years.

Criteria for selection is weighted as follows:

- |  |           |
|--|-----------|
| 1. Classroom Expertise                         | 25 points |
| 2. Professional Involvement                    | 10 points |
| 3. Interaction with Colleagues                 | 5 points  |
| 4. Service to Departments/Division/College     | 5 points  |
| 5. Professional Development/Renewal Activities | 5 points  |

Information that **must** be provided:

1. Completed information form.
2. Current vita of nominee.
3. A Letter of recommendation from a student, a colleague, or a supervisor.
4. Nominator's letter of support.

In fairness to all candidates, no additional materials will be considered. Pages exceeding limits will not be considered. Materials not in the checklist will not be considered. Limits will be: Vita of nominee maximum of 5 pages, letter of recommendation maximum of one page, and nominator's letter maximum of three pages.

2006 TexMATYC Award for Teaching Excellence  
Nomination Form

Name of Nominee:\_\_\_\_\_

College:\_\_\_\_\_

Address:\_\_\_\_\_

Telephone Number:\_\_\_\_\_

Fax Number:\_\_\_\_\_

E-Mail Address:\_\_\_\_\_

Number Of Years of Teaching Experience:\_\_\_\_\_

Number Of Years Presently Teaching In Texas:\_\_\_\_\_

Nominator:\_\_\_\_\_

College:\_\_\_\_\_

Address:\_\_\_\_\_

Telephone Number:\_\_\_\_\_

Fax Number:\_\_\_\_\_

E-Mail Address:\_\_\_\_\_

Email, fax, or mail all requested documents to:

Linda Zientek, TexMATYC President  
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