



the virginia mathematical association of two year colleges Spring 2006 newsletter

FROM THE PRESIDENT:

Even though it seems a lot has happened in the past six weeks, I am still reminded it is a new year and extend my Happy New Year Best Wishes to each of you. I certainly hope you had an enjoyable break between semesters and able to spend the time doing whatever it is you enjoy the most. I spent time with my family and my grandchildren- and that is ALWAYS special time for me. But I must say I was ready and anxious to start a new year and a new semester and I am excited about some of the innovative things that are happening in the classroom throughout the state.

Hopefully one of the things that is active on the minds of each VMATYC member is the upcoming conference at Germanna Community College, March 31-April 1. I am hearing lots of great plans for the conference time and items on the program. I hope each member has those dates marked on their calendar and has his/her registration in the mail to Sarah Martin. Don't forget the hotel reservation as well!!! Much more about the conference throughout this newsletter.

Perhaps you have recently noticed--- "keeper of the listserv" has changed. Welcome and thanks, Jon Wilkin. Claude Moore, our list serv originator, retired from DCC this summer and moved to North Carolina. Claude very graciously volunteered to continue his electronic work with VMATYC for awhile but did ask that someone begin to think about taking on the tasks of listserv, webmaster, and newsletter editor. Jon Wilkin, NVCC, offered and has been busy working on these items since this fall. Many thanks to Jon for being the ready volunteer. Hopefully you noticed that even this newsletter is in new format for easier reading and printing if you wish. Jon has also updated and changed the look of the VMATYC website, www.virginia.matyc.org. Take a look if you haven't already!!

VMATYC certainly extends its best wishes to Claude. He didn't really retire-just changed positions and is listed on the Virginia rolls as retired!!! He is now a faculty member at Coastal Carolina Community College. Claude assures us he has not forgotten us in Virginia and we certainly hope not. Claude has worn many hats for VMATYC through the years, and we as an organization, and myself as an individual member, thank him for all his dedication to the teaching profession.

Several VMATYC members made the long plane trip to San Diego in November for the AMATYC conference. Please look for more in the newsletter concerning this event. I certainly hope each of you will either renew- or join-AMATYC this year and seriously consider attending the conference this fall in Cincinnati. There are several items currently on the agenda with AMATYC that could support and/or impact us in our classroom-dual enrollment, Beyond Crossroads, MACC3-just to name a few. Look for items concerning AMATYC items elsewhere in the newsletter and visit the AMATYC website at www.amatyc.org

May we each "GO THE DISTANCE WITH MATHEMATICS" as we attend the conference in March and have another successful year in the classroom.

Linda Taylor, VMATYC President

Reports from the November 2005 AMATYC Conference

AMATYC Affiliate Delegate Report

Chris Allgyer, MECC

An important role of an Affiliate Delegate is attendance and participation in the Delegate Assembly at the AMATYC Annual Conference. There were several items that delegates reviewed and voted on at the 2005 Conference in San Diego. Prior to the Saturday Delegate Assembly, forums were held on Thursday evening. At these forums, delegates (and any other interested members) were given the opportunity to provide valuable suggestions and insight.

One of the items debated this past November was the Position Statement: **Guidelines for Dual Enrollment in Mathematics**. At the forum, quite a few differing opinions were expressed regarding this topic. As a result of the suggestions received at the forum, the statement was revised and then approved at the Delegate Assembly.

Position Statement:

Guidelines for Dual Enrollment in Mathematics

Dual enrollment programs are programs in which a high school student enrolls in a postsecondary institution and may earn credit in both sectors simultaneously. Dual enrollment courses are not intended to replace a strong high school curriculum.

The mathematics faculty at the two-year college should set the standards for and participate in:

- determining which courses to offer in the dual enrollment program
- faculty selection
- course content and prerequisites
- assessments and evaluations
- standards for granting college credit

for mathematics courses in the dual enrollment program

Program/Curriculum Issues Committee,
November 2005

The Delegate Assembly also voted to support the five implementation standards of Beyond Crossroads and their application to the teaching and learning of mathematics in the first two years of college. These standards focus on student learning and the learning environment, the assessment of student learning, curriculum and program development, instructional strategies, and professionalism.

I encourage you to view the latest draft of this important project. It can be found on the AMATYC web site at <http://www.amatyc.org/Crossroads/CROSSROADS/index.htm>.

At the Thursday Forum, we were informed that several digital products to enhance and expand the messages of Beyond Crossroads are under development. We heard about plans for a web-enhanced version of the document and an Outreach Kit to assist in communicating and implementing Beyond Crossroads, as well as plans for digital products on assessment and quantitative literacy/mathematics across the curriculum.

In other business, the AMATYC Executive Board, in response to a suggestion at a previous Delegate Assembly, proposed that AMATYC dues increases be tied to the CPI-U (Consumer Price Index for All Urban Consumers). This proposal was approved by the delegates.

The 32nd AMATYC Annual Conference will be November 2-6, 2006 in Cincinnati, Ohio.

The theme, Keeping Current with the Standards, signifies that the final version of Beyond Crossroads will be unveiled in Cincinnati. As a native of southwest Ohio, I can tell you that Cincinnati is a great place for a convention (it's also closer to Big Stone Gap than Richmond!). The Cincinnati Convention Center has been recently remodeled and it is connected to the hotels by skywalks. A special reception will be held at the National Underground Railroad Freedom Center on the banks of the Ohio River. This museum, which opened in 2004, stands as the nation's newest monument to freedom. To learn more you can visit <http://www.freedomcenter.org/index.cfm>. I hope to see many of you at the AMATYC Conference next fall!



Your VMATYC Voting Delegates:

Chris Allgyer (MECC), Judy Williams (TCC),
Susan Fleming (WCC), Linda Taylor (NVCC).

Reports from the November 2005 AMATYC Conference

AMATYC 2005

AMATYC conferences always have a commonality, and yet each one is very special and unique. This year's conference in San Diego was no exception. It is always fun to visit once again with colleagues from across the nation who I have met at previous conferences, see new software and/or texts displayed by vendors at the large exhibit area, have such a large selection of topics to choose from in deciding which session to attend each hour, and listen to very interesting and yet diverse guest speakers.

What are some of my unique memories of this year's conference?

- This year I certainly appreciated the opportunity to attend the affiliate presidents' luncheon and discussion sessions. It is here that you learn ideas from other state affiliates and share with them some of the exciting and unique things that VMATYC does.
- Some of the textbooks that are used at our school are going into new editions next year and it was only when visiting with the representative at that particular booth at the exhibit area did I find out about it. It is always nice NOT to be surprised with a new text the first day of class!!
- I felt like a dart player in trying to decide which of about 12-15 sessions to attend each hour, how I wish I could be in more than one place at a time! I finally selected sessions dealing with such topics as "Tips for On-Line Teaching", "Are Students Prepared to Succeed in Math in the Community College?" , "Using Excel in Finite Mathematics", "Hands On with Precalculus with Trig", "Please Revisit My Dear Aunt Sally: Topics that Deserve a Second Look".
- And we even learned from one of the guest speakers about the fascinating world of honey bees and their "navigational" systems to return back home.

Beyond that, I came back to my classes feeling invigorated, enthused, confident that my students are really pretty good students-I perhaps am the one that is lagging!! I owe it to my students to learn what I can about techniques in teaching and new outlooks to things "I know", and the AMATYC conference gave me that opportunity. It also gave me the opportunity to proudly represent VMATYC as one of our four voting delegates at the delegate assembly.

Oh, yes, and for those 15 or so VMATYC members in attendance, math teachers really do know how to have fun, don't we!! Whether it was riding the trolley for an

enjoyable evening meal together, soaking up a few rays of beautiful sunshine while sitting by the pools for the 5 minutes between sessions, or walking through the MANY varieties of roses that were in full bloom around the conference grounds as we went between the buildings for the various sessions, it was fun!

I am all ready to make my reservation for Cincinnati this fall so I can be one of many who are "Keeping Current with the Standards". Hope to see you there!!!

Linda Taylor, VMATYC President, NVCC



San Diego Trolley riders: Pansy Waycaster (VHCC), Ann Loving (JSRCC), Susan Fleming (WCC), Frank Borleski (LFCC), Judy Williams (TCC).



Site of the conference: Town and Country Resort, San Diego, CA. Relaxation and "soak up the sun" area to enjoy between the meetings!!!

The upcoming Spring VMATYC Conference

Go the Distance on March 31 and April 1

The theme of our twentieth annual conference is Going the Distance with Mathematics. I hope you are planning to “go the distance” to Fredericksburg to attend! Some former colleagues who moved “down south” will return to remind us of our history, and our current AMATYC Mid-Atlantic VP from “up north” will also join us.

Registration and social time (with refreshments) will begin at noon on Friday, March 31, at the Fredericksburg Area Campus of Germanna Community College. The registration form and directions to the campus are on the VMATYC web site, www.virginia.matyc.org. (Avoid the late registration fee that applies after March 4 by registering now while you are thinking about it.)

Interesting and informative concurrent sessions will be held from 2:00 p.m. until 5:00 p.m. at the college, followed by a delicious buffet banquet at the conference hotel at 6:30 p.m. Dr. Abigail James, Adjunct Professor of Psychology at Germanna Community College, will speak on the topic, “How Gender Differences Affect the Teaching of Mathematics.” Dr. James earned a Ph.D. in Educational Psychology from the University of Virginia and has many of years of teaching and counseling experience at the secondary level. She has presented papers at several national conferences and won second place in the American Psychological Association 2004 Teaching Tips Contest.

On Saturday morning, April 1, a deluxe continental breakfast will be available at the college. Breakfast will be followed by our annual VMATYC business meeting, where we will make a major decision regarding our future conferences. (Drag yourself out of your warm bed; you won’t want to miss this.) More great concurrent sessions, a boxed lunch, and special door prizes will follow. The conference will end by early afternoon, so those traveling long distances will have plenty of time to return home in time to feed their cats, dogs, horses, or chickens (and beg their forgiveness for leaving them).

The conference hotel is the Ramada Inn – South, 5324 Jefferson Davis Hwy. (Route 1), Fredericksburg, VA 22408, <http://www.ramadainnsouth.com/index.html>. When calling the hotel to make your reservation (540-898-1102), state that you are with VMATYC and whether you are a VCCS faculty member. The conference rate of \$67.10 (including tax) is guaranteed through Thursday, March 13. The VCCS will pay half of the room plus tax for Friday night for all VCCS faculty, fulltime and adjunct. If you are rooming with another VCCS faculty member, the whole cost of the room will be paid provided you BOTH complete the paperwork to formally check into the room.

Many thanks to the wonderful planning committees at Germanna headed by Yvette Hester, David Fama, Delois McCormick, Mike Shirazi, Dan Ross, and Jay Nyzowyj.

I look forward to seeing you soon! (You don’t have to look at all the pictures of my cats unless you’re really interested.)

Sarah Martin, President-Elect

Another AMATYC memory



Now who has a calculator to figure
the cost of this fun meal???

Chris Allgyer (MECC), Paxton Allgyer, Ann Loving (JSRCC),
Judy Williams (TCC), Pansy Waycaster (VHCC),
Harriette Roadman (NRCC), Susan Wood (VCCS),
Linda Taylor (NVCC).

The upcoming Spring VMATYC Conference

Teaching Statistics with GAISE (including an example of statistical literacy)

GAISE is the acronym for Guidelines for Assessment and Instruction in Statistics Education and is the product of a report issued through the American Statistical Association. More detailed information can be found at the AmStat website <http://www.amstat.org/education/gaise/GAISECollege.htm>. The report contains six recommendations for an introductory statistics course:

1. Emphasize statistical literacy and develop statistical thinking.
2. Use real data.
3. Stress conceptual understanding rather than mere knowledge of procedures.
4. Foster active learning in the classroom.
5. Use technology for developing concepts and analyzing data.
6. Use assessments to improve and evaluate student learning.

Using these six guidelines will help us structure our statistics courses to enable our students to become statistically literate. For example, students should believe and understand why random sampling allows results of surveys and experiments to be extended to the population from which the sample was taken. They should also appreciate that random assignment in comparative experiments allows cause and effect conclusions to be drawn, but that, in general, association is not causation.

An understanding of this last fact would have helped the writer in last Sunday's *Virginian-Pilot* ("Model troubled U.S. schools on Israeli kibbutz", February 6, 2006, page J3) avoid some statistical mis-steps and make a stronger case for his proposal. The author has data that show that "although kibbutzim comprise only 5% of the Israeli population, surprisingly large numbers of kibbutzniks become teachers, lawyers, doctors, and political leaders... 75% of Israeli air force pilots ... came from the kibbutz movement." Based on this information, the author believes we should create a system of child development centers to provide the same support to our children that the Israeli children receive while their parents are working.

His conclusion is that this will cause our children to perform better when they enter school "ready to learn". There is definitely an association between growing up in a kibbutz and becoming an adult with a successful career. But does being in the kibbutz cause the children to aspire to academic and professional success? Or are there confounding or lurking variables at work? Variables such as stability of home life or parents' attitude about their children's success need to be considered. Did anyone ask if being in the highly charged atmosphere of kibbutz life motivated the children to turn toward service or government careers? Perhaps kibbutz life removes possible distractions to academic success, distractions which children in our society would still face. A child's participation in a day care center is not the only factor determining his or her success in school. Daycare participation can be important but does not necessarily cause a child to do well in school. Could your students read this article and ask some of these same questions?

If you want to go further with discussions of these guidelines, consider attending one of the presentations about them at the VMATYC conference this Spring.

Judy Williams, TCC



A STATISTICIAN'S FAVORITE PLANT: THE HEDGE .

Other VMATYC news

News from the Regions

Northern

The Northern Region held their annual fall meeting on November 5th at the Manassas campus of Northern Virginia Community College. Despite the beautiful fall weather, there were over 50 attendees. Special thanks to Ed Anderson and the rest of the Manassas faculty for being such excellent hosts! The fine presentations were:

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|------------------------|--|-----------------------|
| TJ Johnson BRCC | Movable Algebra | |
| Jane Serbousek NVCC | Creating a Learning Community for Developmental Math Courses | |
| Ed Anderson NVCC | The 2005 AP Calculus Exam | |
| Jon Hexter PVCC | Taming Trinomials Tersely | |
| Judy Williams TCC | Exploring Statistical Reasoning and Probability for Teachers of Pre-Service Elementary Teachers | |
| Jon Wilkin NVCC | How I Use Software in the Classroom | Kevin Chouinard, NVCC |

Western

The Western region meeting of VMATYC was held on Oct. 2, 2005 on the campus of Wytheville CC. The acting dean, Susan Fleming, hosted the meeting. Chris Allgyer showed the group some of the new TI-84 applications and programs. Break out groups discussed transfer issues and placement issues.

Will Galliher

Eastern

The VMATYC Eastern Regional Conference, hosted by the Virginia Beach Campus of Tidewater Community College and held on October 21, 2005, was an enriching and successful venture. Approximately thirty mathematics

professionals attended. I would like to thank our six speakers who each graced us with thoughtful, informative, and engaging presentations. A brief synopsis of the presentations follows.

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| George Derise TCC | Bicentennial of the Birth of Sir William Rowan Hamilton | This lecture introduced William Hamilton's quaternions, an algebra with 3 imaginaries and a more advanced Clifford algebra with n 1's and m imaginaries. |
| Sally Harrell Kristine Ortwine TCC | Supplemental Instruction: What It Is and What Makes It Work | During this session, the origins, underlying theory, and outcomes of Supplemental Instruction, as well as the training required of students who wish to become Supplemental Instructors, was discussed. |
| Joe Joyner TCC | Perfect Little Programs | This featured multimedia learning activities for math and science. |
| Mike Kirby TCC | Round Table Discussion | This was an open discussion concerning student retention |
| Lee Monroe Addison-Wesley | Identifying and Applying Student Learning Styles to Mathematics in the Classroom | Tom Carson from Midlands Technical College presented his research on identifying and applying student learning styles to mathematics in the classroom. |
| Judy Williams TCC | Exploring Statistical Reasoning and Probability for Teachers of Preservice Elementary Teachers | Judy shared some information from this, the most recent AMATYC Summer Institute |

Roberta Barlok, TCC

AMATYC Comes To Us

Judy Williams, TCC

November 20-23, 2008, the annual conference of our national organization, The American Mathematical Association of Two-Year Colleges, will take place in Washington, D.C. Put those dates on your calendar now. With a few hours drive you can take advantage of an outstanding professional development opportunity.

I'm especially excited because I've been appointed the Conference Local Events Coordinator. A colleague asked, "Just what does a Local Events Coordinator do?" As I have studied the AMATYC Policy Manual, I have learned that the job requires oversight of the following areas:

- Explaining how to navigate to the hotel by air or car
- Compiling local information on restaurants, sites, tours, weather, etc
- Planning a Friday night reception/activity
- Choosing the menu and table décor for Saturday breakfast
- Staffing the hospitality room
- Overseeing and outfitting a technology networking room
- Creating signage/directions inside the hotel
- Stuffing packets/bags
- Proofing publications information
- Designing a local web page
- Fulfilling other duties as need becomes known

You can help in any of these areas. As conference time comes closer, I will be glad to sign you up to staff the information desk, host the hospitality area, or patrol the computer room for a few hours. If you feel compelled to volunteer to lead in one of these areas, let me know now and avoid the rush later. :

As this newsletter goes to press, I have received an offer from Ann Loving, Randy Pittman, and Kathryn Wallo of JSRCC to organize the Hospitality Room. Thank you so much for stepping forward.

Who else is ready to help? Everyone is welcome, but we are asked to keep our AMATYC membership current as we work on the conference. This is a good idea, too, since this is the year our VMATYC membership list is compared to the list of AMATYC members from Virginia. If the intersection of the lists contains over 50 people, VMATYC gains an Affiliate Delegate; over 100 common members

gives us two more delegates, and so on - why not think big? Last time we were so close at 43, let's make it over the top this year. (Please forgive my digression to plug AMATYC membership, but the benefits are worth every penny with the conference, the journals, and the network of colleagues supporting you.)

Our first conference preparation assignment is to recommend to the AMATYC Executive Board a logo, theme, and color. One suggestion is to put the letters A-M-A-T-Y-C inside a line drawing of the Washington Monument with the theme "Washington, D.C. - a monumental place for mathematics". Send your idea to jwilliams@tcc.edu.

I hope you feel the excitement that I do about Washington. Make sure you're included in the crowd headed north November 20, 2008.

Encourage Colleagues to Join

VMATYC members please encourage your colleagues to join VMATYC and enjoy the many benefits of membership such as the opportunity to network with faculty teaching mathematics and computer science in two year colleges across the state. Pick up new ideas for teaching an old topic from colleagues at both regional and statewide conferences. Information and support are a few keystrokes away as our listserv puts us in near instant communication with one another. VMATYC also offers the opportunity for mathematics educators to join a collective voice in making recommendations for the way mathematics and computer science are taught at two year colleges in Virginia and across the nation through our affiliate status with AMATYC.

You would be hard pressed to find a better bargain at just \$10 per year. Please visit our website, <http://virginia.matyc.org/>, for a membership application and other information about VMATYC.

The Glenn Fox VMATYC Mathematics and Computer Science Scholarship

We will award a merit scholarship of \$350 per semester for the academic year 2006-2007. Criteria for the scholarship include:

- Intention to major in (with plans to teach) computer science, mathematics or mathematics education and demonstrate potential for success in any of these areas.
- Demonstrated ability, determination, and motivation necessary for successful academic performance.
- High school graduation or equivalent by Fall Semester 2006.
- Completion of at least 12 semester hours of college-level courses, including 3 hours of transfer mathematics at a Virginia community college by the end of Spring Semester 2006 with a GPA of 3.2 or higher.
- Continuation for two semesters (Fall 2006 - Spring 2007) at the community college with enrollment in at least 6 semester hours of college-level courses, including a transfer-level mathematics course, for each semester the scholarship is received.

The application form can be found at the VMATYC web site www.virginia.matyc.org. It must be mailed to Past President Judy Williams, along with three letters of recommendation and an official college transcript, no later than June 2, 2006. The award will be announced by July 15.

We hope that by accepting applications after completion of the Spring semester and making the award available for the following semester, more students will be able to take advantage of the scholarship.

From the editor ...

As you may have noticed, I've changed the form of the VMATYC newsletter. The online version allows you to access each article quickly, while the pdf version is primarily for printing a complete newsletter. Let me know what you think at jwilkin@nvcc.edu.

In this column, I'll highlight an online item or software that might be of interest to VMATYC members. Many of us use graphing software, either in class or at our desks. One open source graphing software is GraphCalc, available for a free download at <http://www.graphcalc.com/>. This software includes a calculator, as well as both 2D and 3D graphers. If you have been looking for quality graphing software at the right price, give this package a try.

Hope to see you at Germanna,
Jon Wilkin

