



ArizMATYC NEWS

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JANUARY 2008

A Message from the ArizMATYC President

The ArizMATYC Fall Conference in Prescott was attended by 114 members. Dean Holbrook did an excellent job of organizing the conference on short notice. As many of you know, the conference resulted in my acquisition of a new truck and the corresponding retirement of my 250,000 mile 4-Runner that blew its engine on the way to Prescott after 12 years of faithful service. If I seemed a little distracted at the conference it was because between meetings I was trying to figure out how to get home. After the business meeting Anne and David Dudley graciously offered to drive me to pick up what was probably the last rental car in Prescott. I was so grateful to all of you who offered me rides, food, cell phone use and lodging. It reminded me what wonderful, warm and caring people belong to our organization. How fortunate your students are to have you as teachers and role models!

I enjoyed Jay Lehmann's humorous and memorable presentation about math models for the distance to lightning, dog years, grade inflation and global warming – great activities for several levels of algebra with learning outcomes correlated to math competencies. Some of the concepts, from Jay's new elementary algebra textbook, were applicable at higher levels of cognition.

Good ideas were also plentiful at the "Implementing *Beyond Crossroads* in Arizona" round table discussion hosted by Ken Hurley and me. The results of this session are posted at the ArizMATYC web site. I hope that the rest of you who presented will send your handouts or Powerpoint presentations to me for posting on the web site where those of us who were not lucky enough to attend will be able to see your fine work.

Scott Anderson and Anne Dudley were both honored with Excellence in Teaching awards during the opening session of the AMATYC conference in Minneapolis. President Kathy Mowers presented each awardee with a medallion from AMATYC, and Jennifer Jones of Houghton Mifflin presented each with a \$500 check for professional development. Congratulations Anne and Scott!

AMATYC committees have been restructured with the new Innovative Pedagogy Strategies Committee absorbing and replacing the former TiME and Distance Committees. Anne Dudley will serve as the chair of the new Division/Department Issues Committee, which will consider issues of mathematics department chairs and adjunct faculty, faculty qualifications, mentoring of new faculty, international mathematics, and dealing with diversity in mathematics faculty and students.

I hope everyone has a great year and I look forward to seeing you all at the Spring 2008 ArizMATYC meeting scheduled for April 18-19, sponsored by ASU.

Shay Cardell

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AMATYC Student Math League

National and regional results for the first round in the 2007-2008 Student Math League competition have been announced.

Arizona teams participating in Round 1 placed as follows in the Southwest Region:

3	Pima Community College	113.5
6	Mesa Community College	106.5
13	Phoenix College	54.5

Arizona students who scored highest in Round 1 ranked as follows:

5 (tie)	Dafong Zhu	Mesa CC
8	Garrett Hawes	Pima CC
14	Mark Haferkamp	Pima CC

Congratulations to these three individuals for their success, and to all who participated in the first round exam.

There is still time to participate in Round 2 of the 2007-2008 Student Math League. The cost to register your college team is \$35; the registration fee is waived if your college is an institutional member of AMATYC. A college moderator is required – someone who is willing to make a few photocopies, advertise and proctor the exam, and report the scores to the national moderator. This is a simple way to introduce students to competitive exams and to encourage them to have some fun with math. There is even a similar competition for faculty at the national AMATYC conference every fall. Rules of the student competition and more information is available at the AMATYC website (www.amatyc.org).



We need your news for the newsletter! Mail articles to Sue Jensen at Pima Community College
8181 E. Irvington Rd.
Tucson, AZ 85709-4000

Or e-mail to
sjensen@pima.edu

ArizMATYC Campus Reports – October 5, 2007

Yavapai Community College:

- MyMathLab is being used
- Lots of adjunct faculty members

University of Arizona:

- Received a grant to help students working on master's programs – Institute of Math Ed
- Using WebAssign for Calculus I, II, III in Spring; this will help with daily accountability for homework
- Supplemental work for Precalculus – MAT 151 is prerequisite and using Aleks software

Scottsdale Community College:

- President retiring after 30 years, new VP of academic affairs, new department chairs
- Involved with ASU's College Algebra redesign project
- Working with high school/middle school teacher training
- Reform textbook for beginning and intermediate algebra
- New hire for Fall 2008

Pima Community College, West Campus:

- Many administrative changes in the past year (akin to musical chairs)
- A three-year pilot program in developmental math courses using Enablemath software was ended abruptly after one year
- Instructors using various software products including Educo, MathXL and Hawkes
- 8 math positions have been authorized for 2008-2009; job announcements posted on PCC's website.

Northland Pioneer College:

- Had a couple of presidents lately
- NCA accreditation

Northern Arizona University:

- Busy with 3 MSP grants
- U-teach grant for preparing future math/science teachers – will find out in a few weeks
- Enrollment up at NAU thanks in part to recruitment; have hosted a few conferences
- 10 temporary instructors this year; will hire 4 lecturers, 1 tenure track undergrad specialist for fall
- Supplemental instruction for Precalculus – weekly meetings with faculty
- New book and WebAssign for STA 270
- Have a grant for a speakers bureau; some travel money available
- P20 council – alignment team to look at math standards for graduating high school students; working with a consultant to help states align standards to be college and work-ready. Suggesting 3 years math for class of 2012 and 4 years for class of 2014.

continued

Campus Reports, continued

Mohave Community College:

- Administrative changes – president leaving, vice president taking over
- Revamped developmental classes – lab based using My Skills Tutor and MyMathLab

Mesa Community College:

- Hiring a new president and new V.P. of Academic Affairs
- Articulation agreement with Mesa Public Schools to get ready for intermediate algebra
- Working on developmental area since drop out rate is high
- Hiring 1 person to work in basic skills level

Glendale Community College

- One new hire this year
- Looking for long distance online course information – piloting different packages

Eastern Arizona Community College:

- New upgrades in some classrooms with a lot of technology
- 1 new math hire for Fall 2008; currently have new provost and 3 new deans
- Tried MyMathLab and didn't like it
- Tutoring program with student tutors working with handicapped students
- Students in arithmetic classes are struggling; project to require elementary education majors to tutor these students
- Offer a pass/fail “basic facts” workshop – may require this before arithmetic class
- Using AQUIP for evaluations – runs slowly

Diné College:

- Involved with University of Windsor, Canada

Coconino Community College:

- New president who is interested in reorganizing to include shared governance
- Did not get HP grant – will try again
- Want to revamp developmental classes
- Changing book in differential equations
- Changed Precalculus curriculum—more time for functions
- ArizMATYC directory is up-to-date – ArizMATYC thanks Kate Kozak!

Cochise Community College

- Using Hawkes software (hawkeslearning.com) for second year, will use it next year as well
- Placement cutoffs raised; seeing more students at lowest levels (where we felt they should be...)

continued

Campus Reports, continued

Cochise Community College

- New texts: liberal arts math – *Mathematical Ideas*, 11th, Miller, et al.; Calculus sequence – Thomas, 11th
- Created 4-credit versions of pre-, elementary and intermediate algebra as well as two 2-credit split versions of each, moving in the direction of modules
- Changed assessment at the developmental level from pre-test/post-test in all sections to a 20-question exit exam for intermediate algebra only; still have skills assessments in college algebra, pre-calculus, calc I
- Bond election last November failed miserably, 69% NO
- New VP of Administration is a Cochise grad!

Chandler-Gilbert Community College:

- 8%-12% growth in past two years; ahead of PC and SCC
- Involved with Math in Action and Harvard Consortium
- Nursing program 3 years old; new building for health fields
- Common finals for all math classes; student must score 60% or better to earn a C or better

Central Arizona Community College:

- New president previously served as CFO; new VP of Academic Services formerly a math teacher
- Reorganization of academic side; hiring 5 academic deans; moving to district (rather than campus) deans
- Redesigned developmental sequence, working on assessment of developmental math
- Administering 1st week assessment tests to ensure students are placed appropriately
- Some online classes using MyMathLab; offering more hybrid classes with MyMathLab in developmental sequence, have to train the students to use the technology
- 250 participants in middle school/high school math contest
- Shay Cardell retiring; hiring for new distance learning math position, need help with ITV info

Arizona Western College:

- New construction on campus to yield several state-of-the-art buildings, including a solar-powered science building; new buildings ready for use in Fall 2008
- Welcome to new full-timer Weicheng Xuan, teaching primarily in South Yuma County; department will also hire one full-time faculty member to replace Phong Chau (now teaching at Glendale CC)
- Calculus courses currently using WebAssign as an online homework system
- An Arizona Western College student, Nghia Vu, took first place in Arizona in last year's Student Math League competition

Arizona State University:

- Transfer students for education will go to polytechnic campus
- ASU producing few high school math teachers; new dean will use dedicated money to improve this

No campus reports were received from Tohono O'odham, South Mountain, Rio Salado, Phoenix, Paradise Valley, Grand Canyon, Gateway, Estrella Mountain, Embury-Riddle, ASU West.

ArizMATYC Business Meeting
Yavapai Community College – October, 2007

Meeting convened at 2:07 pm

1. Approval of minutes from Fall 2006 and Spring 2007 meetings

Motion to approve both sets of minutes, motion seconded, approved with no changes

2. Reports

- A. Treasurer: See Treasurer's report; lots of money – SW Regional Conference \$2457.52, Spring meeting \$1535.00; paid one Student Math League winner, but not the others yet; delegates didn't need money from us; gave \$300 to New Orleans members, \$100 to hospitality room.
- B. Newsletter: Please send interesting items for newsletter!!!! Ask campus reps for articles and ask about NAU speakers bureau; P20 council article would be interesting; directory has been updated; article on math competitions would be good; deadline for next newsletter is 12/1/07.
- C. Webmaster: Please send suggestions and anything to be posted.
- D. Historian: Look for old ArizMATYC stuff to give to Dave Dudley.
- E. President-Elect: Nominating chair for gathering nominations—when do we need them? Let Ken Hurley know by 12/10/07 who wants to run for office, elections over summer and early fall. Shay is retiring in spring.
- F. Past-President: No report.
- G. President: No report.

3. Future Meetings

Spring 2008 meeting is a joint meeting with MAA, April 18-19, 2008. Need to let ATF group know the dates. ASU will host and possibly book a hotel; Mesa CC is an alternate site.

Fall 2008 meeting at Eastern Arizona College – date to follow (possibly 1st Friday in October.)

Traveling Workshop for Refocusing College Algebra—this group wants to go to colleges that commit to change their courses. Maybe instead we will have a session on College Algebra as a terminal course and discuss MAA standards.

4. Revise Constitution and Bylaws

Current Constitution and Bylaws posted on www.arizmatyc.com.

Change “mail ballots” to “distribute ballots” to allow e-mail voting.

Change “two year colleges” to “stakeholders in the first two years of college” so four-year schools are not excluded.

ArizMATYC has 130 members; currently 10% of membership required for official meeting. Change to “Those who are present constitute a quorum.”

Proposed changes will be on listserv and will be voted on at the spring meeting.

5. Arizona Math Directory

Got feedback from all, but still have to check into Sierra Vista campus of Mohave

Had to change campus reps at a few colleges

continued

Problem with University of Arizona – no rep and difficult to get information

Have a campus rep at all campuses of ASU

Kate Kozak will send out the directory update

Do we want to update this information again next year? Every year? Campuses update information or we assume correct. Put a revision date on each file for future reference.

Mistake on names at Chandler-Gilbert CC – Kate will fix this

Kate placed an asterisk next to those who are members of ArizMATYC

6. **Report on Southwest Regional Conference**

It's over and went very well – 160 attendees—overall a good meeting

Three times as many vendors as anticipated – vendor room was very small – confusion with vendors was that the companies didn't know if this was a local or national conference – our local reps helped to push it through

Presentations have now been delivered to web page writer

Create a document to discuss problems with planning for future reference

Motion to pay Dan's 2008 AMATYC conference registration in appreciation for all of his hard work in planning the conference – seconded – approved

7. ***Beyond Crossroads* Implementation in Arizona**

AMATYC wants to do this

Notes on website from today's meeting regarding this

Link college algebra with *Beyond Crossroads*

8. **Delegates to AMATYC Conference in Minneapolis**

David Dudley, Ana Jiménez, Shay Cardell, Ken Hurley are delegates; put packet online

Volunteer delegate can't stand in now if someone can't make it; should be able to provide substitutes up to a month before a conference – take this to the AMATYC board

9. **TiME Position Paper**

Put on listserv or website

Do we approve it? Paper will probably be approved

TiME committee will not be in existence soon – changes in committees

10. **Other**

AMATYC needs newsletter editor; AMATYC committees restructured

Anne Dudley will chair the Department/Division Issue Committee – have to write goals – place to air issues and have discussions

America Competes Act-\$43.3 billion agreement for science and technology

NSF – 7 year path to double budget – could effect all of us

Meeting adjourned at 3:00 pm

Jennifer Jameson, Secretary

33rd AMATYC Annual Conference – “Building a Better Tomorrow”
November 1-4, 2007– Minneapolis, Minnesota
Delegate Report from Shay Cardell

As usual, the AMATYC conference sessions were packed with useful and creative information from enthusiastic presenters, providing the proverbial shot-in-the-arm to plunge ahead with renewed dedication to teaching mathematics. Since my teaching assignment this year is to be primarily online, I attended the themed session “Math on the Web.” Jamie Thomas presented some great ideas for online discussion topics. Prior to the midterm and final exams she asks students to post original problems, including directions on how to solve them. A classmate works the problem and the original student replies, telling if the answer is right or wrong. The assignment is monitored by the instructor, who then has the opportunity to correct misunderstandings and provide advice. If a class is large, Jamie divides the students into small groups and assigns group topics, such as finding and summarizing math applications in the media, and analyzing mathematical functions represented by graphs found in the newspaper. I have already added some of her discussion board questions to my online discussion board.

In “Connecting with Your Online Students” Mary Beth Orrange suggested using online resources for video and screen-capture software, including the Jing Project, a free screen-capture program. She also uses avatars and animated characters, podcasts, wikis, blogs, IM (Instant Messaging), and eFax. In addition she connects with her students through phone calls, both online and traditional office hours, and in-person meetings at public libraries, schools and local coffee shops. Jody Cotton said she enjoyed reading the journals she assigns as blogs for her online students, and Mark Marino demonstrated some of the projects he assigns his student online, including function demonstrations, critter growth and a statistics project. Groups of 5-6 students work together for two or more weeks to complete the projects and post their results on the discussion board.

Assigned to preside at a session called “Motivational Minutes,” I was delighted to find it lively and entertaining to the fifty-four participants in attendance. Leslie Smith recommended injecting daily math classes with a five minute activity to motivate students, and proceeded to involve the audience in confidence-building, communication-building, memory and goal achievement activities that could be used in any classroom.

A session on the current state of College Algebra reform “Factors that Shape Faculty Reasoning About College Algebra Reform” presented by Helen Burns gave the results of interviews of faculty at three community colleges at various stages of reform. She defined reformed courses as those that involve developing transferable problem-solving skills, non-template problems, modeling (regression), data analysis, use of spreadsheet technology, quantitative literacy, connection to liberal education goals, and focus on preparation for the workforce. In contrast, traditional college algebra courses concentrate on functions and procedural knowledge (e.g. polynomial, exponential, radical, rational functions and their graphs; factorization of polynomials). Helen found that students were the common inspiration for reform, and that one of the strongest influences was math departmental culture. Many attempts at reform have not addressed the reconceptualization of course purpose but have simply changed the sequence and content. Although there was little philosophical attachment to traditional college algebra, ties to traditional textbooks and course transfer issues have slowed the transition to reform mathematics. Departmental hiring, tenure and reward structures are also highly influential factors.

continued

Conference report, continued

Precalculus is privileged over liberal arts math, and no one supported reform for STEM majors. Some suggestions for reform leadership are to put less emphasis on procedural tasks such as Solve, Substitute and Graph, and switch to conceptual tasks such as Model, Specify, Clarify, Predict and Interpret. Faculty of the future who have been taught reform concepts from K-12 may view reform math as familiar and comfortable. Extending the scope and practice of modeling and data analysis, using Communities of Practice to explore departmental culture, and finding and rewarding mavericks who are pushing the envelope, will all accelerate the transition to College Algebra Reform.

George Alexander and I presented a sharing session for affiliate web site directors to discuss AMATYC online web resources, web editor software and web site enhancements. George demonstrated some of the links he has posted at the AMATYC Online Resource site.

ArizMATYC was well represented at the conference with presentations by Scott Anderson, Tom Anderson, Connie Carruthers, Ted Coe, Anne Dudley, David Graser, Jack Haugen, Ken Hurley, Ana Jiménez, Laura Watkins and Frank Wilson (If I missed anyone I apologize.) Scott and Ana have posted their presentations online at the AMATYC website and I highly recommend reading them to find ideas you can use in your classroom.

After discussion at the forum on Thursday evening, and after Frank Wilson's intensive efforts, the position statement "The Use of Technology in Mathematics Education" was adopted at the delegate assembly. Rethinking the purpose and meeting time of the Delegate Assembly was brought up again this year. In addition, it was suggested that the composition of the assembly be changed to include fewer delegates.

The weather was unseasonably warm for Minneapolis, with bright sunny days. In spite of the busy conference schedule, I had a few breaks between sessions and took the opportunity to walk a short distance to the Mississippi River to view the St Anthony Falls and the old Gold Medal and Pillsbury flour mills. There was also a beautiful tree-filled park near the hotel with brightly colored autumn leaves carpeting the grass and a lake filled with Canadian geese.

Loops of sparking bead necklaces found in our conference packets were worn by many of the 1105 AMATYC members in attendance to show their support of the attendees from Louisiana; the latter expressed their gratitude for our donations to their conference expenses at the Saturday morning breakfast and at every other opportunity. Each AMATYC conference I have attended has provided me with valuable information that I could use to make an immediate impact in my classroom, as well as an opportunity to meet and learn from colleagues across the country.

Mark your calendar and plan now to attend:

34th Annual AMATYC National Conference
November 20 – 23, 2008
Washington, D.C.

“Washington D.C. – A Monumental Place for Mathematics”

February 1, 2008 is the deadline to submit session proposals.

Follow the link on the ArizMATYC web page to learn more about the conference:
www.arizmatyc.org



YOU Can Help to Strengthen ArizMATYC

Are all of your colleagues ArizMATYC members? If not, encourage them to join now. Ask them to send their name, college, contact information and \$5 to

Anne Dudley, ArizMATYC Treasurer
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Questions about ArizMATYC? Call Anne at 623-845-3389