

Ohio

MATYC

Spring 2008

The Semi-Annual Newsletter of the Ohio Mathematics Association of Two Year Colleges

Message from the President

Rodney Null, Rhodes State College

Dear OhioMATYC Colleagues,

At our Fall 2007 meeting, a number of changes were initiated for OhioMATYC. We will only have one general meeting/conference each year and this will occur in the spring. Additionally there will be an executive committee meeting, open to the membership, in conjunction with the AMATYC annual conference. If a special need or interest arises, the executive committee will schedule a general fall meeting/conference.

The current plan is to hold the annual meeting in even-numbered years at a state park. This year we will be at Hueston Woods April 18th and 19th, 2008. As for the odd-numbered years, the goal is for the organization to continue to be the host for a Teachers Teaching with Technology (T³) Regional Conference. This will be contingent upon continued support from Texas Instruments. Currently, Sandy Franz, University of Cincinnati, is pursuing funding to support such an event in 2009.

Another new item is the establishment of the OhioMATYC Teaching Excellence Award. This award will be given at the spring meeting in even-numbered years. It gives us the opportunity to recognize some of the outstanding educators in our ranks. I hope you will take the time to put forth a worthy nominee. For details and nomination forms see the OhioMATYC website: <http://www.terra.edu/ohiomatyc> ***Note the deadline* this year's nominations must be received no later than Monday, March 31, 2008.**

Two reminders of things which have not changed:

Consider nominating someone for the OhioMATYC Distinguished Service Award. See Michelle's article for additional information.

Letters regarding OhioMATYC's Student Scholarships will be mailed to mathematics department chairs at all of Ohio's public two-year colleges by the end of April. Details and nomination forms can be found on the OhioMATYC website ***Note the deadline* this year's nominations must be received no later than Monday, September 29, 2008.**

Hope to see you all at Hueston Woods,



Visit us on the Web at
<http://www.terra.edu/ohiomatyc>
Visit AMATYC at <http://www.amatyc.org>

Spring Meeting Agenda

Friday, April 18, 2008

11:00 – 12:15	Registration
12:15 – 12:30	Welcome
12:30 – 2:00	Cognitive Psychology Leslie Smith
2:00 – 2:15	Break
2:15 – 3:15	TAG Update Gerry Mueller
3:15 – 3:30	Break
3:30 – 4:30	Vice Chancellor Jon Taffel Ohio Board of Regents Jim Trefzger – Midwest Vice President
4:30–5:00	
5:00 – 5:30	Business Meeting
5:30 – 6:30	Social Hour

Saturday, April 19, 2008

9:00 – 10:00	Magic Squares and Other Ways to Keep Students Engaged Enyinda Onunwor
10:00 – 10:45	Break
10:45 – 11:45	WinPlot Gowribalan Vamadeva
11:45 – 12:00	Closing Remarks



Opening Doors Through Mathematics Nancy Sattler, Terra Community College

According to AMATYC, “professionalism with its core values of expertise, autonomy, commitment, and responsibility is at the heart of improving student success in mathematics. All two-year college mathematics faculty need to possess a strong academic preparation, participate in supportive professional development, exhibit the capacity for change and improvement, and shoulder the responsibility of carrying out multifaceted professional activities. Growing in knowledge of mathematical content and pedagogical strategies, providing quality instruction, and exhibiting professional excellence are the results of deliberate faculty action.” (2006, p. 63).

As members of OhioMATYC, each of you has a variety of ways that you can improve student success in mathematics thereby *Opening Doors Through Mathematics*. One example would be by taking part in an AMATYC Summer *Beyond Crossroads* Workshop in Colorado Springs, Colorado on June 6 and 7 and in San Diego, California on July 10 and 11. The attendees of these workshops will use the *Beyond Crossroads* Implementation Cycle to develop, assess, and improve projects of their choice. Each two-day workshop/conference will have multiple sessions to choose from. There will be common plenary sessions and concurrent break-out sessions and opportunities to work on specific projects and/or to focus on specific aspects of *Beyond Crossroads* standards and recommendations. (See <http://www.amatyc.org/BC/BCSummerWorkshopHome.htm> for further information.)

Another way of *Opening Doors Through Mathematics* is by sharing your expertise in implementing the recommendations of *Beyond Crossroads* at one of AMATYC’s summer workshops or by presenting at OhioMATYC. You can propose a session or sessions so that other can benefit from your experiences. Contact Bruce Yoshiwara at bcic@amatyc.org for more information or go to <http://www.amatyc.org/BC/BCPresentationProposalForm.htm> to complete an application by March 15 to present at an AMATYC workshop or contact Jan Cook, OhioMATYC past president to present at OhioMATYC at some future date.

Opening Doors Through Mathematics is AMATYC’s Vision Statement. I invite you to *Open Doors* for your students by taking part in professional development activities at your institution and at the state and national level. If you have any questions about AMATYC, please contact me, Nancy Sattler, Treasurer of AMATYC at nsattler@terra.edu.

Reference

American Mathematical Association of Two-Year Colleges. (2006). *Beyond Crossroads: Implementing standards in the first two years of college*. Memphis, TN: Author.

Mathematics TAG Update Jerry Mueller, Columbus State Community College

You are probably aware of the on-going statewide TAG course review process. There are certainly a number of issues that could be discussed, but this article is primarily intended to update you on the status of the mathematics course review process. However, a little background on the TAGs might be helpful.

Transfer Assurance Guides (TAGs) are groups of foundational courses that represent a commonly accepted pathway to various baccalaureate majors. Courses determined to be equivalent within a TAG are guaranteed to transfer and apply to degree program major requirements across all public higher education institutions in Ohio.

The statewide development and adoption of the TAGs (in response to House Bill 95) is having a significant impact on transferability. They assure that transfer students and students who begin and end study at the same Ohio public college or university are treated equitably with regard to the applicability of courses to their major program of study. The TAGs also serve as a major advising tool.

In the past two years, the Mathematics TAG faculty review panel has reviewed over 300 courses submitted by Ohio public 2-year and 4-year institutions to the Ohio Board of Regents (OBR) for TAG course equivalency. As of this writing, over three-fourths of these courses have received panel approval. Institutions have been responding to panel concerns in those cases where a course is not approved and have made concerted efforts to re-align course content and to re-submit the course in a timely manner. First-time submissions of courses also continue.

The faculty members serving on the panel are your mathematics and statistics colleagues from both 2-year and 4-year institutions. Several also serve on the Math Transfer Module review panel. The TAG panel members make every effort to be fair and consistent in their judgments about course equivalency.

The Mathematics TAG review panel is charged with the review of two sets of courses. The first set are the courses required for the first two years of the mathematics major (the year-long calculus sequence, multivariable calculus, linear algebra, and differential equations). These courses, along with additional recommended courses within the Transfer Module, form the TAG pathway to the baccalaureate major in mathematics. Several of these mathematics courses are also included in other TAGs such as physics, chemistry, and engineering.

The second are the general education courses that are recommended for other TAGs and apply in a particular way to the Transfer Module mathematics component for those TAGs. These are considered prerequisite or supplemental courses (including college algebra, pre-calculus, elementary statistics, business statistics and business calculus). For example, business calculus and statistics are considered prerequisite courses within the TAG for Business.

Consensus among the campuses has recently been reached on the identification of essential learning outcomes for Business Calculus and Business Statistics. The OBR has worked closely with the Mathematics and Business panels and the campuses on the revisions of these courses. Faculty members at both two and four-year institutions are currently in the process of re-aligning their courses to meet the essential outcomes and are re-submitting their courses for panel review.

Matching courses for equivalency by institutions, submitting/re-submitting courses, panel review, and reporting results back to institutions, have together taken several years now, but the OBR has set a firm deadline of June 30 for institutions to be in compliance with HB 95. This obviously does not leave a lot of remaining time, but the TAG panels are making every effort to review courses in a timely way.

It’s clearly a challenging initiative, but the hope is that this ‘Herculean’ statewide course equivalency process will greatly benefit students in their ability to transfer and apply their TAG courses to their major at any public college or university within Ohio.

I hope to see you at the Spring meeting where we can discuss things at greater length.



Message from the Past President
Jan Cook

In our fall meeting at Columbus State the membership discussed and approved the creation of a new recognition for OhioMATYC faculty. Nominations for the OhioMATYC Teaching Excellence Award will be accepted in the fall of odd numbered years for consideration for the commendation to be awarded at the following spring meeting. The recipient of the OhioMATYC Teaching Excellence Award will be submitted by OhioMATYC for the AMATYC Teaching Excellence Award.

Since the new award was created last fall and that is the time period in which nominations would normally be accepted, we need to have you work quickly for this first OhioMATYC Teaching Excellence Award. Nominations will be accepted until **Monday, March 31, 2008** and the first OhioMATYC Teaching Excellence Award will be presented at the spring meeting at Hueston Woods State Park, 18 -19 April 2008.

Jan

Hueston Woods Resort and Conference Center
5201 Lodge Road
College Corner, OH 45003

Lodge & Cottage Reservations: 513-664-3500
 Discount Rate: \$109/night
 Rooms and rate blocked/held through March 17th.

From Cleveland, Ohio: Take 71 South to 270 West to I-70 West. Exit at Route 127 Eaton (South) on the South side of Eaton turn right on 732 South to the park.

From Columbus, Ohio: Take I-70 West and exit at Route 127 Eaton (South), on the South side of Eaton turn right on 732 South to the park.

From Cincinnati, Ohio: Take Route 27 North to Oxford. In the center of Oxford turn right on 732 (North) to the park entrance.

From Toledo, Ohio: Take 75 South to I-70 West. Exit at Route 127 Eaton (South) On the south side of Eaton turn right on 732 (South) to the park.



Advanced registration should be sent to OhioMATYC Treasurer Tony Ponder and should be postmarked on or before April 1, 2008. If you cannot attend the conference, please renew your membership by filling out the form below and sending it along with your check to Tony.

Tony Ponder, OhioMATYC Treasurer
 Sinclair Community College
 444 W. Third Street
 Dayton, OH 45402
 (937) 512-5305

Make check payable to OhioMATYC.

Registration for Spring Meeting: \$25.00

Renewing Membership (check one): 1 year (\$10.00)

Amount Enclosed _____

3 years (\$25.00)

Name:	College:
College Department:	Street Address:
Telephone Number:	City, State & Zip:
E-mail Address:	Home Address:
Home Telephone Number:	City, State & Zip:

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Distinguished Service Award

Michelle Younker, Rhodes State College

Think about your colleagues across the state and their involvement in mathematics. If someone comes to mind, take a moment and recognize his/her efforts by nominating the person for the OhioMATYC

Distinguished Service Award. The award has been established to recognize professors who have contributed to mathematics education and is awarded bi-annually. Nominations are accepted in the fall of even years and the award is presented at the OhioMATYC meeting the following spring.

To be eligible for the award:

1. The person must currently be a member of OhioMATYC.
2. The person must have at least five years college teaching experience in mathematically related courses.
3. Members of the executive committee are not eligible.
4. Previous awardees are not eligible for nominations until three other awardees have been recognized.

Guidelines for Nominations:

The nominee should...

1. Have service to mathematics education locally and regionally and/or nationally.
2. Have been involved in professional presentations and publications related to mathematics education.
3. Have any other service or information not mentioned above such as awards, grants, other positions held, etc.

The nomination form takes only a few minutes to complete. The executive committee will serve as the selection committee and nominees will need to provide additional information to the selection committee about their service.

Ohio has many dedicated mathematics educators; please take a moment today and nominate someone you know who has provided distinguished service to mathematics education for the OhioMATYC Distinguished Service Award. You may get a Nomination Form on the OhioMATYC web page. Nominations are due to Michelle Younker on or before **October 15, 2008**. Her address can be found at the bottom of the nomination form. Should you have any questions, please feel free to call Michelle at 419.995.8449 or to email her at younker.m@rhodesstate.edu.



NSF awarded AMATYC with a small grant to fund several traveling workshops for schools interested in refocusing college algebra. Last fall, AMATYC offered two (in Michigan and Texas) but have the funds to offer three to five more. If you are interested in refocusing college algebra, you might want to consider hosting an AMATYC traveling workshop at your school. The workshop can be one day or split over two days. It can be in conjunction with a previously scheduled meeting, or a stand-alone meeting for one school. A single school should act as a host institution and agree to provide AMATYC with long-term feedback on changes.

Ohio's ARML Team

Alan Yang, Columbus State Community College

For the past three years, Ohio has participated in American Regions Mathematics League (ARML, <http://www.arml.com>) competition. The contest is written for high school students, although some exceptional junior high students attend each year. The structure of ARML is that it is a team competition, and each team allows up to 15 members. The competition consists of several events, which include a team round, a power question (in which a team solves proof-oriented questions), an individual round, two relay rounds (in which a contestant solves a problem and passes his/her answer to another team member, who, in turn, uses this answer to solve another problem), and a super relay.

The competition usually takes place on a Saturday at the end of May or the beginning of June. There are nationally four competition sites; Ohio competes at the Penn State site. Team Ohio rides a coach bus to Penn State (the bus begins in Cincinnati and makes two stops before entering Pennsylvania). The team leaves for Penn State on the Friday before the competition day and returns on the Sunday after. The team stays in Penn State's dorms for two nights.

(<http://www.csc.edu/docs/math/faculty/ayang2.htm>) This year's ARML competition will be held on Saturday May 31st. Team Ohio will travel to Penn State on Friday May 30th and return on Sunday June 1st.

Ohio ARML needs caring and passionate mathematicians to be care-takers. This program has been growing. In 2005, Ohio sent almost two teams to Penn State; last year however, Ohio sent three full teams. If this trend continues, Ohio ARML will continuously need at least 3 coaches, one for each team. Team Ohio comprises of very talented and enthusiastic, and dare I say the best, students from all corners of the state. It really is a challenging, and yet exciting and fulfilling experience to work with a group of young brilliant minds!

Ohio ARML practices twice before the competition. The practices have been held at Columbus State Community College, clearly for geographical reason, and they typically go from 10AM to 2:30 p.m. The practices are either on a Saturday or a Sunday; one in April and another in May. As a coach, one's time commitment includes only the three-day trip and these two practices.

Also, a coach's costs for transportation and lodging at Penn State are covered. The breakfast and the lunch on the competition Saturday, the lunches at the two practices are also covered. The dinner on the competition Saturday and all other meals on the trip, however, are not paid. This applies to me, too. The total costs for coaches are very little.

If you are interested in becoming a coach for Ohio ARML, or if you have questions about Ohio ARML or ARML in general, please contact me via e-mail ayang@csc.edu, or by phone at 614-287-5432.

Beauty of Math!

$$\begin{aligned}1 \times 8 + 1 &= 9 \\12 \times 8 + 2 &= 98 \\123 \times 8 + 3 &= 987 \\1234 \times 8 + 4 &= 9876 \\12345 \times 8 + 5 &= 98765 \\123456 \times 8 + 6 &= 987654 \\1234567 \times 8 + 7 &= 9876543 \\12345678 \times 8 + 8 &= 98765432 \\123456789 \times 8 + 9 &= 987654321\end{aligned}$$