

NEWS

Opening Doors
Through Mathematics



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BUILDING A STATWAY TO HEAVEN: NEW PATHWAYS INTO MATHEMATICS

by Uri Treisman

Autonomy is a cherished value of the faculty. We are the Kings and Queens of our classroom domains. Who knows our students better than we do? So, naturally, we need to retain the freedom to teach our classes in ways that address our students' unique learning needs.

When we step back from our own classrooms, however, we rarely see instructional innovations spreading. And on some days, a collective amnesia makes it hard to learn from others' successes or from cautionary tales of humbling defeats. To address this predicament, our profession needs mechanisms that enable us to effectively work in collaboration—across institutions—to develop coherent approaches to nurturing student success.

With this goal in mind, the Carnegie Foundation for the Advancement of Teaching is launching an initiative that will create new pathways through developmental mathematics. The first is the Statway, which will enable students who are placed into elementary algebra to complete a developmental mathematics course and a credit-bearing, transferable statistics course in one year. A second pathway—the Mathway—will develop students' foundations of mathematical literacy and decision-making. These new pathways are intended for non-STEM majors.

We expect to create other, parallel, pathways for students interested in pursuing careers in STEM or elementary school teaching. We all know that when students experience their first success in college mathematics, it emboldens them to raise their aspirations and reconsider their career plans. Therefore we will endeavor to coordinate these pathways so they permit flexibility and successful transfer.

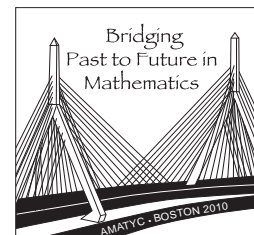
At the heart of the Carnegie developmental mathematics initiative will be networked improvement communities of faculty members who create and employ a common set of formative assessments and learning tools. Through an online community, these faculty will be able to share their experiences, and, most importantly, build on each others' work.

We will also reexamine the ways faculty members and their institutions nurture student success. The project will capitalize on new research characterizing the problems that students face in their developmental mathematics courses. It will also draw on recent advances in the psychological and learning sciences concerning the growth in students' mathematical confidence

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AMATYC 2010 IN BOSTON

Welcome to Boston and the 36th Annual AMATYC Conference; the Local Events Committee (LEC) hopes that you will have a great time in their wonderful city! To have a great time, go across the street from the hotel and buy a ticket for either the hop-on, hop-off trolley or a duck boat tour and enjoy the sights of Boston. If you take a duck boat tour enjoy its splashing into the Charles River and showing many sites of the city from a unique vantage point.



History flashes before your eyes. Visit the Charlestown Navy Yard where Old Ironsides (USS Constitution) and the World War II destroyer, USS Cassin Young, reside. The Constitution Museum is also there. Nearby is the Bunker Hill Monument located on Breed's Hill.

Next, visit sites along the Freedom Trail; Old North Church, King's Chapel, the Old Granary Burial Grounds, Park Street Church and Boston Common. Visit Faneuil Hall and Quincy Market Place – be sure to visit Paul Revere's House, Boston Massacre site and the Old State House which are nearby. If you have time, enjoy a meal at one of Boston's many famous restaurants that are located in this part of town. Next, travel down Beacon Street past the gold domed State House and past "Cheers" Bar with the famous Boston Common on your left. Unfortunately the swan boats do not run at this time of the year but you can visit a sculpture of the mother duckling with her babies based on the famous children's book, Make Way for Ducklings.

Cross over the Mass Avenue Bridge and visit Cambridge – be sure to walk through Harvard Yard and stop at Henry Wadsworth Longfellow's home which served as George Washington's headquarters.

When you return to the hotel remember the oldest public library in the United States is nearby, as well as Trinity Church and the wonderful shopping to be found on Tremont and Newberry streets.

If museums are your pleasure, buy a city pass that allows you go to the New England Aquarium, the Museum of Fine Arts (near Symphony Hall and Northeastern University) and the Museum of Science. Enjoy the many wonderful shops in the Prudential Center and take the elevator to the Skywalk

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FIGHTING INNUMERACY — PART 2

ROB FARINELLI
CC OF ALLEGHENY COUNTY
MONROEVILLE, PA

I would have never imagined the amount of emails that I received from my last column. I am glad that so many people see the need to negate this culture of math-bashing that occurs on our campuses. The idea that being successful in mathematics equates to being successful in college has finally reached the collective consciousness of deans, chief academic officers, and community college presidents. In response to my last column, Marvin Johnson, a long-time faculty member in the Chicago area, sent me an email and made the following observations:

“It seems as if the biggest detractors of mathematics are our colleagues in non-mathematics disciplines. This seems to be something they do reflexively and without forethought because of their own prior bad experiences with mathematics. They do not seem to understand that their comments further perpetuate a culture of under-achievement in mathematics which leads to decreased employment and educational opportunities for our students.

“Nonetheless, confronting the problem directly by pointing out the need for mathematics literacy is taken by many of these colleagues as an attack upon them personally and only adds to their tendency to belittle the necessity of mathematics in the curriculum. I have had more success in dealing with this problem by contrasting the time context of our colleagues’ experience with mathematics with the time context of our students. For our colleagues, there may have been a time when a person could experience success without a great deal of mathematics, but that was then and this is now. The days of our colleagues’ undergraduate experiences are long gone. The permeation of an increasing number of disciplines by statistical methods has created our present day situation where an encounter with mathematics is inevitable and knowledge of mathematics is a must. When the matter is stated in this way, the comments seem to be taken less personally resulting in less opposition to the validity of our point.”

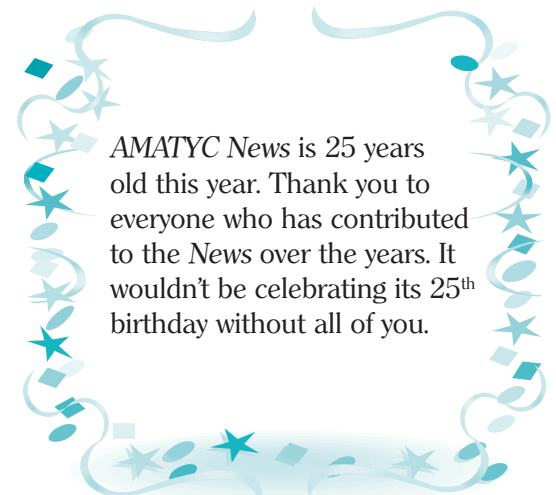
Another member, who did not wish to be identified, spoke of advisors at the college who told students not to take their mathematics courses until they had completed two semesters so that they could “get used to college” first. At the same time, they were encouraged to get their developmental reading and English “out of the way.” It appears that taking mathematics is analogous to going to the dentist - something that you *have* to do. Whereas we know that taking more mathematics opens more doors, more opportunities, and more career choices.

These beliefs about mathematics are not going to disappear overnight. Nor will they disappear on their own. As the leaders in mathematics at our colleges,

we must be willing to examine our current policies and practices and determine if we are promoting success in our mathematics courses.

- Placement Testing - Is your current placement test putting students where they need to be? Are students taking the placement test seriously? Is there a policy for a placement test preparation or re-taking the placement test? How long are the placement test results valid?
- Advising - Are advisors telling students to wait to take their first mathematics courses or are they encouraging students to begin their mathematics sequence early? Does your college have a policy about taking developmental mathematics in the first semester if a student places into that level? Does your college have a policy about taking developmental courses in consecutive semesters (pre-algebra to beginning algebra to intermediate algebra in successive terms, etc.)? Does your college have a policy that mandates students take their first college-level mathematics course immediately after successful completion of the developmental mathematics courses?
- Course Delivery - Does your college have special sections for students who are repeating a developmental mathematics course? Do you have options for students who need a review of material as opposed to learning it for the first time?
- Instructional Strategies - As a department, are you implementing the ideas in chapter 4 of *Beyond Crossroads*?

As you can see, there is a lot of work to be done. There is no “magic cure” to fix this problem. However, we are the leaders in paving the way to a more successful path for our students. I encourage each of you to take the leadership mantle at your college and run forward!



AMATYC News is 25 years old this year. Thank you to everyone who has contributed to the News over the years. It wouldn't be celebrating its 25th birthday without all of you.

“Small minds discuss persons. Average minds discuss events. Great minds discuss ideas. Really great minds discuss mathematics.” – Anonymous

USAMO

AMATYC is a sponsoring society of the USA Mathematical Olympiad (USAMO), a series of examinations given to four hundred thousand high school students across the nation. Three hundred twenty-five outstanding high school students qualified for the USAMO. These students took a challenging, six-question, nine-hour examination, and the top twelve USAMO students were honored in Washington, DC in June. This year, Allen Yuan from Farmington, Michigan won first place.

In Washington, DC, President Rob Farinelli and Sandy Poinsett, chair of the Mathematics Intensive/College Mathematics committee, represented AMATYC at a reception for the USAMO awardees and their families at the MAA Carriage House on June 7, and at the Awards Ceremonies at the U.S. State Department Building on June 8. The awards dinner was hosted by John P. Holdren, Assistant to the President for Science and Technology.

Following the celebration, the winners took the team selection test (TST) to qualify for the U.S. team at the International Mathematical Olympiad (IMO) that was held in Astana, Kazakhstan in July. Each year the team going to the IMO consists of the six students with the highest combined scores from the TST and the USAMO. Once selected, the students spent three weeks at the Univ of Nebraska-Lincoln training for the IMO.

PRESIDERS NEEDED!

Due to an increase in the number of sessions being offered there is an urgent need for additional Presiders for the 36th AMATYC Annual Conference, November 11-14, 2010, in Boston, MA.

Serving as a presider is a great way to become involved in the conference program and in AMATYC. As a presider you play an important role in the success of the conference. Your duties include seeing that sessions start and end on time, introducing the speaker(s), and distributing, collecting, and summarizing the session evaluation forms.

At conference registration in Boston, you will receive a presider packet that includes all the necessary materials for your presider assignment – speaker introductions, a step-by-step procedure list for first-time presiders, session evaluation forms, and a Presider Summary Sheet.

It is not too late to submit your presider application. Go to the AMATYC homepage, www.amatyc.org. Once there, click on 36th Annual Conference, and then click on the Call for Presiders button in the far left column. Finally, click on Presider Application to complete and submit your Presider Application. If you prefer, simply contact Bob Malena at bmalena@ccac.edu.

A NEW (ACADEMIC) YEAR'S RESOLUTION — AMATYC TE AWARD NOMINATION

Teachers are one of a select group of individuals who get to celebrate New Years twice a year. A new academic year, a new set of classes, a new group of students, all offer the same opportunities everyone experiences with a new calendar year. How about adding nominating a colleague or yourself for the AMATYC 2011 Teaching Excellence Award as the top item on your list of resolutions for your new academic year.

The Teaching Excellence Award (TE Award) is intended for educators who have made outstanding contributions to mathematics or mathematics education at a two-year college. Teaching excellence is the main focus of the award. Each awardee will receive an AMATYC medallion and a \$500 check from Brooks/Cole, a part of Cengage Learning. The next Teaching Excellence Awards will be presented at the 2011 AMATYC Conference in Austin, Texas. November 2011 may seem a long way off but the deadline for applications is December 6, 2010.

Nominees must be AMATYC members whose primary assigned duties are delivering instruction in an associate degree-granting program. Nominees must have the equivalent of a minimum of 5 years of full-time teaching experience. Individuals can be selected for the award only once.

Information on what to include in a nomination packet is available on the AMATYC website at www.amatyc.org/awards/TeachingExcellence. If you have questions about the award or the nomination process, please contact AMATYC's President-Elect and TE Award Committee chair, Jim Roznowski (jroznow@delta.edu), your AMATYC Regional Vice President, or your region's committee representative:

Northeast	Nadarajah Kirupaharan nkirupaharan@yahoo.com
Mid-Atlantic	Agnes Azzolino asquared@mathnstuff.com
Southeast	Margaret Ehrlich margaret.ehrlich@gpc.edu
Midwest	Larisa Russell russell.l@rhodesstate.edu
Central	Karen Gaines kgaines@stlcc.edu
Southwest	Melinda Rudibaugh melinda.rudibaugh@cgcmail.maricopa.edu
Northwest	Susan Knights susanknights@cwidaho.cc
West	Gregory Daubenmire gdaubenmire@laspositascollege.edu

Don't let this New Year's resolution be forgotten. Submit a nomination today.

AMATYC Office Announcements ...

- ◆ The AMATYC Office has new phone numbers: 901.333.6243 (office) and 901.333.6251 (fax)
- ◆ The AMATYC Office hours are (central time):
Monday–Thursday 8:30 am – 5:00 pm
Friday 8:00 am – 4:30 pm
These hours may vary slightly when the college is in between terms.

IN MEMORY OF BEVERLY BROOMELL

Beverly Broomell, a long time active participant in NYSMATYC and AMATYC, passed away on April 28, 2010.

Bev was a Past NYSMATYC President. She taught at Suffolk CC for 20 years and served as the chair of the mathematics department. She retired in July 2009. She continued to teach online as an adjunct.



Many in AMATYC knew Beverly through her active participation and her attendance at the annual conference. She was also an active participant in MATHEDCC, the AMATYC discussion list. Beverly had served as a reviewer on the *Beyond Crossroads* document. At the time of her passing, she was a member of the AMATYC Nominating Committee, representing the Northeast region.

Those of us who knew Bev personally have lost a great friend and one of the sweetest people we have ever met. She was a dedicated teacher and colleague, and we miss her dearly.

A fund is being set up to offer a scholarship in Beverly's name for students working to becoming math teachers. If you wish to donate, please visit www.broomell.com/bev/.



➤➤ Building a Statway, Cont from page 1

and self-efficacy. Representatives of AMATYC forming a committee on Statistics and the current Developmental Mathematics committee are already involved in the improvement community, serving as critical advisors on the creation of new pathways.

Beginning this summer, 19 community colleges in five states will kick off a year of intensive development of the Statway credit-bearing course. Shortly thereafter, 8-10 community colleges in three other states will begin work on the Mathway. We will post regular updates, as well as, the products of our work with institutions, on the Carnegie Foundation website at www.carnegiefoundation.org.

But the community needs to be larger than the initial colleges. Through the website, we also invite your participation, feedback, and ideas for improving this important work. Most critically, we invite your professional engagement as we scale up this work to a national level.

Uri Treisman is a professor of mathematics and director of the Charles A. Dana Center at the University of Texas at Austin. Since 2009, he has also served as a senior partner with the Carnegie Foundation for the Advancement of Teaching.

COHORT 7 FELLOWS SELECTED

The Selection Committee is proud to announce the Fellows selected for Cohort 7 of AMATYC Project ACCESS. This diverse group of instructors will be attending the Boston conference this fall and the Austin conference next year. They will be attending special workshops designed especially for them. They will also become a part of an ever-growing community of instructors (Fellows and Consulting Colleagues) who share ideas, frustrations, solutions, and support. Congratulations to this new group:

Lori Ann Austin	Raritan Valley CC, NJ
Eric Bouldin	Roane State CC, TN
Joshua Britt	Dyersburg State CC, TN
Thomas Campos	Laredo CC, TX
Eden Donahou	Seminole State College of Florida, FL
Suzie Goss	Lone Star College - Kingwood, TX
Wei-Jen Hsieh	Laredo CC, TX
Hanli Huang	Brookdale CC, NJ
Larry Huff	Frederick CC, MD
Mark Hull	Clackamas CC, OR
Erinn Izzo	CC of Baltimore County, MD
Jennifer LaRose	Henry Ford CC, MI
Jessica Lickeri	Columbus State CC, OH
Cailin Mistrille	Univ of Arkansas - Morrilton, AR
Sally Mulvey	Brookdale CC, NJ
Sosina Martirosyan Peterson	Lone Star College - CyFair, TX
Ryan Petitfils	College of the Siskiyous, CA
Gabriela Sprague	Brookdale CC, NJ
Susan Vo	Los Angeles Valley College, CA
Allison Wolf	Georgia Perimeter College, GA

➤➤ AMATYC 2010, Cont from page 1

Observatory for a breathtaking view of the city of Boston and its surrounding cities. You then have another choice of attractions – take the “T” to the John F. Kennedy Presidential Library & Museum which is close by the University of Massachusetts-Boston, or take the “T” over to the Harvard Museum of Natural Science.

As you can see – do, do come to Boston early and stay late, there are a multitude of exciting things to do and see as well as enjoying the best yet AMATYC conference all in Boston!



“Mathematics is like checkers in being suitable for the young, not too difficult, amusing, and without peril to the state.” – Plato

HIGHLIGHTS OF THE 2010 AMATYC SPRING BOARD MEETING

by Pauline Chow

The AMATYC Executive Board met at Southwest Tennessee CC in Memphis on April 9-12, 2010. During the meeting, the Board took the following actions:

- The following appointments were made:
 - o **Steve Kilner** (Northeast), **James Magliano** (Mid-Atlantic), **Mary Pearce** (Southeast), and **Jeganathan Sriskandarah** (Midwest) to the Student Mathematics League Test Development team for a term beginning on 4/4/2010 and ending on 3/31/2013
 - o **Steve Yramategui** (Northwest) and **Anatoliy Nikolaychuk** (West) to the Student Mathematics League Test Development team for a term beginning on 4/4/2010 and ending on 3/31/2012
 - o Members as regional representatives for their respective academic committees, effective immediately and ending at the end of conference (EOC) 2011.
 - o **Marjorie Moller**, Jacksonville regional representative on the AMATYC Program Committee beginning at EOC 2010 and ending EOC 2013.
 - o **Frank Goulard**, Exhibits Chair effective EOC 2010 to EOC 2012.
 - o **Darlene Winnington**, Presider Chair, EOC 2010 to EOC 2013.
 - o **Judy Williams**, Assistant Conference Coordinator, effective immediately to EOC 2012.
 - o **Laura Lee Watkins**, Project ACCESS Coordinator, starting on January 1, 2011 for a 3-year term.
 - o **Joyce Friske**, Affiliate Website Director, July 1, 2010 to June 30, 2012.
- The following reappointment was made:
 - o **April Ström**, Research in Mathematics Education at Two-Year College Committee Chair through EOC 2011.
- Approved the conference miniprogram be printed in four colors effective immediately.
- Approved the member discounted registration conference fee for the 2011 Annual AMATYC Conference at \$325.
- Approved a revised Corporate Partner Program.
- Approved a policy on Focus Groups to meet during the AMATYC Annual Conference.
- Revised the schedule of how the AMATYC Office will notify members of their membership status.
- Revised the Graduate Student Registration fee policy for consistency.
- Formed a committee to develop new strategic planning priorities for 2012-2017.
- Approved the position and job description of Professional Development Coordinator.
- Approved a Whistle Blower Protection policy.
- Approved a Document Retention and Destruction policy.
- Revised the Conflict of Interest policy to require all AMATYC appointed or elected leaders to sign the agreement annually in order for the appointment to the position to be confirmed.
- Approved the formation of the Statistics Committee which will begin meeting at the EOC 2010. The Math Intensive/College Mathematics Committee will no longer include statistics.

CALL FOR NOMINATIONS FOR THE AMATYC BOARD ELECTIONS

by Rikki Blair

Serving as an AMATYC Officer is a wonderful way to expand your professional horizons and to contribute to AMATYC and your profession. The AMATYC Nominating Committee seeks recommendations and nominations for AMATYC National officers and Regional Vice Presidents to serve for the 2011-2013 term.

Nominations are due February 1, 2011.

The offices to be filled in the 2011 election are President-Elect, Secretary, Treasurer, and Vice President for each of the eight regions. Any regular or life member of AMATYC is eligible to run for office. Slating two candidates for each office is the goal of Nominating Committee and the AMATYC Board.

For more information about the duties and requirements of the offices and the nomination process, visit www.amatyc.org/Get-Involved/nomination-board.htm.

The Nominating Committee includes twelve members who represent a cross-section of AMATYC's delegates, members, and leadership, with at least one member from each region. If you have questions, or wish to recommend yourself or someone else for an office, contact one of the members of the Nominating Committee listed below.

Committee member	Region/Email
Jane-Marie Wright	Northeast wrightj@sunysuffolk.edu
Amber Rust	Mid-Atlantic arust@umd.edu
Gwen Turbeville	Mid-Atlantic gturbeville@reynolds.edu
Janette Campbell	Southeast campbejh@pbcc.edu
Rodney Null	Midwest null.r@rhodesstate.edu
Joe Gallegos	Central joe.gallegos@slcc.edu
DeeAnn VanLuyck	Central deeannv@fortscott.edu
Chris Oehrlein	Southwest coehrlein@occc.edu
Amy Keith	Northwest amy.keith@uaf.edu
Randy Taylor	West rtaylor@laspositascollege.edu
Sue Parsons	West parsons@cerritos.edu
Rikki Blair (chair)	AMATYC Past President richelle.blair@sbcglobal.net

2010 CONFERENCE PROGRAM

HIGHLIGHTS

by Wanda Garner

Boston, one of the nation's most historic cities, offers a conference setting perfect for "bridging past to future in mathematics" as you will see November 11-14, 2010, when two-year college mathematics faculty converge on the Boston Marriott Copley Place for AMATYC's 36th Annual Conference. Thursday's opening session address by Javier Gomez-Calderon, professor of mathematics at Penn State New Kensington, will discuss "The Treasure of Polynomials." On Saturday, following the annual awards breakfast, Lew Lefton, mathematician/comedian, will start our day with "Infinity Bottles of Beer on the Wall" which he warns is designed for mathematically mature audiences.

Additional conference events not to be missed include:

- ❖ "Confidence Intervals for a Proportion in Introductory Statistics" by invited speaker, Kimberly Pearson;
- ❖ "Off-Track to On-Track in Two Minutes? Faculty Facilitating Transfer" by invited speaker, Becky Wai-Ling Packard;
- ❖ A three-part symposium organized by AMATYC's Research in Mathematics Education in Two-Year Colleges Committee (RMETYC). The symposium begins Thursday afternoon with "Research as Faculty Development" by Patrick W. Thompson, professor of mathematics at Arizona State University, and "Research on Students' Reasoning and Sense-Making" by J. Michael Shaughnessy, president of the National Council of Teachers of Mathematics. On Friday, Patrick and Michael will be joined by Vilma Mesa of the University of Michigan and April Ström, chair of RMETYC, for "Investigating Teaching Practices Through Systematic Inquiry," a workshop that will extend the ideas presented in Thursday's sessions;
- ❖ "Issues of the Transition to College Calculus" by David Bressoud, president of the Mathematical Association of America;
- ❖ "Transition to Post-Sec Educ - Reasoning in Common Core Math Standards" by Henry S. Kepner, Jr., past president of the National Council of Teachers of Mathematics;
- ❖ "Fermat's Last Theorem" by Javier Gomez-Calderon who is also presenting the address for Thursday's opening session;
- ❖ Themed session, "Emerging Applications: Tomorrow's Careers;"
- ❖ Themed session, "Precalculus, Calculus, and Beyond;"
- ❖ Themed session, "Innovative Teaching and Learning Techniques;"
- ❖ The "Division/Department Chairs' Colloquium;"
- ❖ An outstanding Poster Session filled with unique ideas;
- ❖ Friendly competition in the "Faculty Math League Contest" scheduled this year at the end of the day Friday so that attendees may participate without missing sessions and workshops;
- ❖ A sharing session designed to provide a forum for discussion among affiliate leaders;
- ❖ The latest advances in technology demonstrated in several commercial sessions;
- ❖ An exhibit hall filled with representatives from all your favorite publishing companies eager to share materials designed to help your students succeed.

Make plans now to renew your professional energy by joining your friends and colleagues at AMATYC's 36th Annual Conference in Boston, MA.

FOCUS ON AFFILIATES:

OHIOMATYC

by T.J. Duda

OhioMATYC serves mathematics faculty and students through its major activities, which include hosting a conference and membership meeting each spring, publishing a newsletter each fall, supporting state organizations such as the Ohio Mathematics and Science Coalition, participating in state initiatives such as the Ohio K-12 standards revision, and awarding annual student scholarships and faculty awards. These activities afford faculty members the opportunity to be involved with and affect positive change in mathematics education at community colleges throughout the state of Ohio.

The OhioMATYC executive committee is comprised of five elected officers: president-elect, president, past president, treasurer, and secretary. Officers are elected each spring at the membership meeting. The treasurer and secretary each serve two-year terms, while a president-elect will serve a total of six years: two as president-elect, two as president, and two as past president. OhioMATYC also has three appointed executive committee positions: newsletter editor, awards coordinator, and historian.

OhioMATYC currently hosts a conference and membership meeting once a year in the spring. These meetings alternate between regional T³ (Teachers Teaching with Technology) conferences held on campuses around the state and OhioMATYC meetings held at Ohio State Park facilities. Both are two-day meetings with a small registration fee (around \$35), which typically includes a lunch, breakfast, and snacks.

The OhioMATYC executive committee meets each year at the AMATYC conference. After this meeting, the newsletter editor creates and distributes a full-color newsletter to mathematics faculty (not just members) at two-year colleges throughout the state. This newsletter contains an update on decisions made at the executive meeting, spring conference information, and general interest articles.

Currently, OhioMATYC awards up to four student scholarships of \$300-\$400 in the spring. Each institution with an OhioMATYC member may nominate one student for these scholarships, with state winners chosen at the executive meeting in the fall. In addition, Nancy Sattler and OhioMATYC recently funded the Rudy Sattler Memorial Scholarship for developmental mathematics students. These two \$100 scholarships will be awarded for the first time next spring. OhioMATYC also gives a faculty award each year. The Teaching Excellence Award is given in even-numbered years, and the Distinguished Service Award is given in odd-numbered years. Each recipient receives a plaque and a small cash award.

For more information, visit OhioMATYC's website at www.ohiomatyc.org.

THE CURRICULUM FOUNDATIONS PROJECT: MAKING GOOD DECISIONS ABOUT APPROPRIATE CONTENT – THE ARTS

Susan Ganter, Clemson University and Rob Kimball, Wake Tech CC

Students of The Arts, like students of Mathematics, “are not merely recipients of others’ work; rather, they are creators and problems solvers.” (CRAFTY II - The Arts)

The arts and mathematics have always been connected. As languages, both give expression to the beauty of abstraction and to the complexity of reality. As part of the CRAFTY II Project¹, a conference was held to focus on programs connected to the fine arts². The meeting resulted in a description of the mathematical content, pedagogical dispositions, and technological prerequisites necessary for the development of visual and performing artists.

The consensus of those present was that, in general, the mathematics courses required as part of the general education at most institutions do not address the essential mathematical skills necessary for the arts. In fact, many undergraduate visual arts majors do not take mathematics prior to drawing, painting, or 2- and 3-D design – often waiting until the end of their program to study mathematics. In addition to changes to the general education mathematics course, artists agreed that mathematics should be integrated throughout their curriculum.

The participants also agreed that a constructivist perspective is essential. The arts and mathematics should both be processes in which the students take an active role in interpreting, knowing, and in solving problems. The problem-solving connection between the arts and mathematics led to a list of deficiencies in the current methods of teaching problem solving. Problem solving is not a linear process – in art and mathematics, faculty should emphasize the dynamic and cyclic nature of genuine problem solving. The Right Stuff³ material emphasizes “investigation” or “open exploration.”

Look for a third article in the next *AMATYC News* to learn more about Curriculum Foundations II. You may also contact Susan Ganter (sganter@clemson.edu) or Bill Haver (whaver@vcu.edu) and watch for the publication of disciplinary reports from CFII later in 2010.

¹More information about CRAFTY can be found at: <http://www.maa.org/CUPM/CRAFTY/>

²The CRAFTY Curriculum Foundations II Project workshop on The Arts was held at the University of South Florida, 1-4 November, 2007.

³Kimball is Project Director of The Right Stuff: Appropriate Mathematics for All Students

Mathematical Topics Prerequisite to Drawing, Painting, and 2- and 3-D Design

Percentages: percent increase/decrease, scaling
Measurement: converting units, space, surface area, volume, perimeter, and length
Use of Tools: measuring, estimating results
Patterns: recognition, transference, extension, and creation of patterns
Ratio and Proportion: proportional reasoning
Scale: similar and congruent shapes

Artists discussed the following deficiencies in how problem solving is approached:

1. depict problem solving as a linear process;
2. present problem solving as a series of steps;
3. imply that solving mathematics problems is a procedure to be memorized, practiced, and habituated; and,
4. lead to an emphasis on “getting the answer.”

CBMS 2010 SURVEY DEPARTMENT CHAIRS: YOUR HELP WILL BE NEEDED!

by Rikki Blair

Every five years since 1965 a comprehensive study of undergraduate programs in the mathematical sciences in the United States has been undertaken under the auspices of the Conference Board of the Mathematical Sciences (CBMS), with funding from the National Science Foundation and support from the mathematical sciences professional societies. A stratified random sample of 600 institutions has been selected for the 2010 survey from the roughly 2500 institutions that are either public two-year colleges or (public or private) four-year colleges and universities that have undergraduate programs in mathematics or statistics. Depending upon their program, the institutions selected will receive the survey instrument for undergraduate mathematics programs at four-year colleges and universities, for mathematics programs at public two-year colleges, or for undergraduate statistics programs at four-year institutions.

This year, for the first time, the survey instrument will be available both online and in hardcopy. The CBMS surveys request enrollment data for individual courses, and information on majors, curriculum and pedagogy at the surveyed institutions. The reports of the 2005, 2000, 1995, and 1990 CBMS surveys can be obtained online from links at www.ams.org/cbms. The CBMS surveys have been very useful to academic planners and department chairs seeking additional resources from college and university administrators, as well as those seeking funding for further programs in mathematics, science and technology at the state and national levels.

The 2010 Survey includes questions about special topics to be studied in 2010 – including pedagogy in College Algebra, teacher preparation programs, distance learning, and developmental mathematics.

Given the importance of the data to the mathematical community, administrators of those departments selected for the survey are urged to complete the survey. The new online system has a number of advantages over the hardcopy form: it will automatically skip those questions that are not applicable (based on earlier responses), gray out portions of questions that do not apply, remind one of previous

➤➤Continued on page 11

LETTER TO THE EDITOR

Dear Editor,

President Rob Farinelli brings up excellent points in his article "Fighting Innumeracy" in the April 2010 edition of the *AMATYC News*. It seems as if the biggest detractors of mathematics are our colleagues in non-mathematics disciplines. This seems to be something they do reflexively and without forethought because of their own prior bad experiences with mathematics. They do not seem to understand that their comments further perpetuate a culture of under-achievement in mathematics which leads to decreased employment and educational opportunities for our students.

Nonetheless, confronting the problem directly by pointing out the need for mathematics literacy is taken by many of these colleagues as an attack upon them personally and only adds to their tendency to belittle the necessity of mathematics in the curriculum. I have had more success in dealing with this problem by contrasting the time context of our colleagues' experience with mathematics with the time context of our students. For our colleagues, there may have been a time when a person could experience success without a great deal of mathematics, but that was then and this is now. The days of our colleagues' undergraduate experiences are long gone. The permeation of an increasing number of disciplines by statistical methods has created our present day situation where an encounter with mathematics is inevitable and knowledge of mathematics is a must. When the matter is stated in this way, the comments seem to be taken less personally resulting in less opposition to the validity of our point.

"Math-bashing" is, as Rob points out, an attitude of our culture. The current view of many is that it is acceptable to avoid mathematics because it is difficult and you can experience success without it. We need to ensure that our colleagues understand that the aforementioned view is a relic of the past and the need for mathematical skills in the occupations of the future is only going to increase. They must realize that what our students need is encouragement from everyone in the educational enterprise to do what is necessary to attain an appropriate skill level in mathematics rather than giving students implicit permission to become "math avoiders."

Marvin Johnson
College of Lake County, Emeritus
Lake Forest College

The opinion in this letter is not necessarily the opinion of AMATYC.

STUDENT MATHEMATICS LEAGUE

by Susan R. Strickland

Both rounds of the Student Mathematics League competition have been completed and the final results are in.

Final Team Results:

1. Los Angeles City College, CA, 301 points
2. Pasadena City College College, CA, 253 points
3. (tie) DeAnza College, CA,
East Los Angeles College, CA, 250.5 points
5. Mt. San Antonio College, CA, 245.5 points
6. Brookdale CC, NJ, 245 points
7. Diablo Valley College, CA, 242.5 points
8. Green River CC, WA, 239.5 points
9. Ohlone College, CA, 230 points
10. West Valley College, CA, 227 points

Final Individual Results:

1. Haykaz Stepanyan, Los Angeles City College, CA, 75 points
2. Lien Che-Cheng, North Seattle CC, WA, 70.5 points
3. Brendan Fletcher, Central Piedmont CC, NC, 68.5 points
4. Joshua Ma, Brookdale CC, NJ, 64.5 points
5. Tigran Ter-Stepanyan, Los Angeles City College, CA, 62.5 points
6. Samuel Ahn, San Jose City College, CA, 61.5 points
7. Sumit Chawla, Los Angeles City College, CA, 61 points
8. Timothy Johnson, El Camino College, CA, 60.5 points
9. Dang Minh, Mission College, CA, 58 points
10. Eunjee Lee, DeAnza College, CA, 57.5 points

Top Schools and Students by Region:

Northeast:	Borough of Manhattan CC, NY Zhu Xianzhen (Borough of Manhattan CC, NY)
Mid-Atlantic:	Brookdale CC, NJ Joshua Ma (Brookdale CC, NJ)
Southeast:	Central Piedmont CC, NC Brendan Fletcher (Central Piedmont CC, NC)
Midwest:	College of DuPage, IL Christopher Johnson (College of DuPage, IL)
Central:	Normandale CC, MN LiHua Zhang (Rochester CTC, MN)
Southwest:	Tarrant County College, TX Ly Nguyen (Tarrant County College, TX) (tie) Hanh Dung (Arizona Western College, AZ)
Northwest:	Green River CC, WA Lien Che-Cheng (North Seattle CC, WA)
West:	Los Angeles City College, CA Haykaz Stepanyan (Los Angeles City College, CA)

A very grateful thanks to all of the moderators who give the exams, grade them, record them, and send them in.

If your school does not currently participate in the SML, please consider registering for next year's competition. You can read about the SML on the webpage at www.amatyc.org/SML or email susanst@csmd.edu with any questions. The dates for next year's competition are Friday, October 15 through Saturday October 30, 2010 (Round 1) and Friday, February 11 through Saturday, March 5, 2011 (Round 2). Don't forget to register your school for next year's competition at <https://www.alphacommerce.com/amatyc/smlregistration.asp>.

Many traditional two-year institutions have begun to offer four-year programs and degrees. Depending on those programs, a school

➤➤Continued on page 11

DIVISION/DEPARTMENT ISSUES COMMITTEE

The Division/Department Issues Committee (DDIC) looks into concerns and issues that faculty are facing across the country. In Boston, the committee will be sponsoring the Chairs' Colloquium again, where department chairs get together and discuss some of the issues that chairs face. Among the issues that have been discussed at previous colloquiums are: diversity among faculty, adjunct faculty qualifications, mentoring of new faculty, administrative pressures, and more! The committee also has a strong subcommittee on international education.

Membership is open to all AMATYC members. To learn more about the DDIC, please contact the chair of the committee, Sean Simpson, at Sean.Simpson@sunywcc.edu. The committee looks forward to seeing you in Boston!

INNOVATIVE TEACHING AND LEARNING COMMITTEE: USE OF GUIDED NOTES IN MATH CLASSES

by Mary Beth Orrange and Linda Laine

The Innovative Teaching and Learning Committee (ITLC) continuously searches for new and creative ways to enhance the learning process. Each issue of the *AMATYC News* contains an innovative strategy relating to teaching and learning as described by one of the members. In this issue, Linda Laine describes her use of guided notes in class.

As community colleges include a larger and more diverse group of students, the need to use a variety of teaching strategies to address their needs becomes more important. Linda learned about guided notes at a University of Hawaii meeting where Bryan Cook demonstrated the process using guided notes to help the group learn about the method.

In this method the teacher writes and distributes an outline of the lesson for the day to each student. This way the student can focus on the lesson, needing to take fewer notes, and knows the most important points from the teacher's "outline." There are many websites devoted to the practice of developing and using guided notes for student learning for a more complete description of the process.

This year for Linda's beginning algebra students she created a "Plan of the Day" for each class meeting (usually one or two pages with large spaces for students to write their notes). In addition to a list of formulas and/or important words or terms, she lists the sample problems that she will be doing in class. The students do not need to be looking through their textbooks for the correct page and problem number; instead they can focus on the demonstration of the technique being taught. Another advantage is that it saves time.

Because this is the first year she has used guided notes, she has no statistical information on student performance using the method but she is interested in hearing from teachers who have used them.

Committee participation is open to all AMATYC members. To learn more about the AMATYC Innovative Teaching and Learning Committee or to be involved throughout the year, email the chair of the committee, Mary Beth Orrange, at orrange@ecc.edu. To find out more about AMATYC's Committees, visit the website www.amatyc.org.

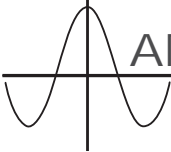
MATH INTENSIVE/COLLEGE MATHEMATICS COMMITTEE

The Math Intensive Committee/College Mathematics (MICMC) is currently composed of two subcommittees: Pre-calculus and Calculus. Statistics will become an independent committee at the end of the 2010 AMATYC Annual Conference. A theme session entitled "Pre-calculus, Calculus, and Beyond" is planned for the 2010 AMATYC Annual Conference in Boston. This theme session will offer a variety of presentations focusing on the courses above developmental mathematics. The various presentations will present ideas that can be taken back and quickly adapted to use in the classroom.

Also, the MICMC will be hosting a sharing session where everyone who attends can contribute information about activities that they have found to be successful and discuss concerns that others might be able to help with. Come by the poster session, where there will be a poster set up giving information about the committee. Finally, don't forget to come to the committee meeting. All who have an interest in the math from pre-calculus and up are welcome to join.

Hope to see you in Boston at one or all of the activities the committee has planned.

Committee participation is open to all AMATYC members. To learn more about the MICMC or to become involved throughout the year, email the chair of the committee, Sandy Poinsett at sandrap@csmd.edu. To find out more about AMATYC committees, visit the website www.amatyc.org.



AMATYC
Traveling Workshops
Bringing Ideas to You

"It was amazing and the teachers loved it."

Crystal Kotow-Sullivan
George Brown College

COLLEGE ALGEBRA

BEYOND CROSSROADS

Technology

Professional Development

Customized
Convenient
Cost Effective

MAC³

STATISTICS

DEVELOPMENTAL MATH

TEACHER PREP.

Contact Information:
Pat Averbek, AMATYC Traveling Workshop Coordinator
tw@amatyc.org, 425.640.1093, www.tw.amatyc.org

AMATYC SEARCHES FOR AN EXECUTIVE DIRECTOR

The AMATYC Board has approved a job description for a new paid Executive Director. Cheryl Cleaves, the Executive Director for Office Operations, will continue her duties, but the new Executive Director will be responsible for representing AMATYC at meetings throughout the country, collaborating with the executive directors of other professional mathematics organizations, maintaining awareness of mathematics education issues in two-year colleges and implementing activities that support Board initiatives.

Minimum qualifications include a Bachelor's Degree, ability to travel regularly, ability to adapt to a flexible schedule, ability to work without direction and ability to communicate effectively. Desired qualifications include experience with non-profit organizations, experience teaching two-year college mathematics and knowledge of standards-based mathematics education. The new director will be required to travel on a regular basis to the AMATYC national office in Memphis, to Washington, DC, and to other locations as needed. It is expected that the Board will complete its search by May 2011. Initially, the director would work 18-hour weeks with a starting date targeted for June 1, 2011.

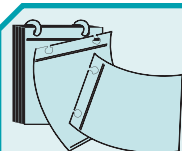
If you are interested, send a letter outlining your interest and capabilities, a résumé, and three references to Mike Hardie, AMATYC Treasurer; 902 Meadow Vista; Carson City, NV 89705 or mikehardie@aol.com.

AMATYC TO REVAMP PROFESSIONAL DEVELOPMENT

AMATYC is looking for a new Professional Development Coordinator to start at the end of the 2010 AMATYC Annual Conference in Boston. The new coordinator will work with the Board through its Professional Development Committee to monitor, coordinate and evaluate AMATYC's professional development efforts in order to provide the membership with high quality opportunities and a wide breadth of activities. The new coordinator must be an AMATYC member, possess good communication skills, have experience with program evaluation, be able to respond to requests for professional development promptly, provide vision and leadership in the development of activities, market AMATYC's educational programs and have knowledge of the professional development standards established by the National Staff Development Council.

Duties will include working with the Professional Development Committee, making recommendations concerning software or applications that AMATYC should acquire to conduct professional development activities, training facilitators of AMATYC professional development activities, coordinating the promotion of professional development opportunities, maintaining regular contact with the AMATYC national office in Memphis, and developing evaluation procedures for AMATYC activities.

The new position will be a supported, volunteer position. It will include travel support to the annual conference. To apply, please send a letter of interest and capabilities, a résumé, and three references to Mike Hardie, AMATYC Treasurer; 902 Meadow Vista; Carson City, NV 89705 or mikehardie@aol.com.



AMATYC CALENDAR OF EVENTS

Check the AMATYC website, www.amatyc.org, for information on conferences and meetings from other organizations.

September 5, 2010 UMATYC Meeting, Dixie State College, St. George, UT. Contact: Clare Banks, banks@dixie.edu

October 2, 2010 LaMsMATYC 11th Annual Conference, Hattiesburg, MS. Contact: Sharon Clark, sharon.clark@jcc.edu

October 8, 2010 IMATYC Meeting, Hawkeye CC, Waterloo, IA. Contact: Rod Holke-Farnam, rholke-farnam@hawkeyecollege.edu

October 15-16, 2010 FTYCMA Fall Retreat, Polk State College, Lakeland, FL. Contact: Don Ransford, dransford@edison.edu

October 17-19, 2010 ArkMATYC Meeting, Hot Springs, AR. Contact: Nanette Berry, berry@uacm.edu. Website: www.aatyc.org/annual-conference/2010-annual-conference.html

October 22, 2010 SOCAMATYC Conference, The Carolina First Center, Greenville, SC. Contact: Catherine Whatley, cwhatley@yorktech.edu

November 11-14, 2010 36th Annual AMATYC Conference, Boston, MA. Contact: AMATYC Office, amatyc@amatyc.org

March 31-April 2, 2011 36th Annual IMACC Conference, Allerton House & Conference Center, Monticello, IL. Contact: Rodger Hergert, r.bergert@rockvalleycollege.edu. Website: www.imacc.org

November 10-13, 2011 37th Annual AMATYC Conference, Austin, TX. Contact: AMATYC Office, amatyc@amatyc.org

November 8-11, 2012 38th Annual AMATYC Conference, Jacksonville, FL. Contact: AMATYC Office, amatyc@amatyc.org

There is now an online form that will enable members to update or add affiliate conference information. You can access the form at www.amatyc.org/affiliates/affiliates-conferences.htm.

The *AMATYC News* is the official newsletter of the American Mathematical Association of Two-Year Colleges and is published four times per year in January, April, August, and October. Your articles, announcements, comments, and letters to the Editor are welcome. Submit all materials by November 27, March 1, June 1, and August 15 for the respective issues.

Address changes should be sent to:

AMATYC Office
Southwest Tennessee Community College
5983 Macon Cove
Memphis, TN 38134
Phone 901.333.6243 Fax 901.333.6251
amatyc@amatyc.org

All other correspondence should be directed to:

Kathryn Kozak
AMATYC News Editor
Coconino CC
2800 S. Lone Tree Rd.
Flagstaff, AZ 86001
Phone 928.226.4277 Fax 928.226.4118
AMATYCNews@amatyc.org

A FREE ONLINE COURSE: LEARN TO USE THE CLASSPAD MANAGER SOFTWARE

ClassPad 101 was originally written as an online technology course for middle and high school students. The contents range from basic algebra to calculus with focus on learning the technology. Each lesson provides step-by-step instructions so that the course could be offered without requiring a high level of mathematics. Upon completion of the course, the pilot students had an excellent understanding of the ClassPad's computer-like interface and enjoyed the ability to use drag & drop to explore mathematics. They also had a much stronger appreciation for mathematics, which was the goal of the course.

Today, the ClassPad 101 course has over 2,000 teachers enrolled. The teachers feel that the course is worthwhile and that it has given them ideas for using technology in teaching. There are many ways to use technology to help students learn mathematics. Whether the technology is used in hands-on exercises or as a tool to assist in teaching, there is a need to use technology to reach students. It is a changing world. ClassPad 101 is an excellent place to start.

Diane Whitfield is the author of ClassPad 101 with her daughter, Karla Whitfield, and Burt Kanner (mathematics teacher, Salem, OR) as top editors. Barry Jahn (retired mathematics and computer science teacher, Salem, OR) guided the course design and was the webmaster.

Casio will send a free ClassPad 330 handheld to all teachers/professors who complete the course by September 30, 2010. Please email Diane at dwhitfield@casio.com to learn more about ClassPad 101 and how to enroll.

AMATYC does not endorse the use of any product.

➤➤CBMS, Cont from page 7

responses, and provide definitions when the cursor hovers over certain highlighted words.

Questions about the survey may be addressed to the Survey Director, Ellen Kirkman (kirkman@wfu.edu) or the Associate Director, Rikki Blair (richelle.blair@sbcglobal.net). AMATYC members, Steve Rodi (TX), Rob Kimball (NC), and Terrie Teegarden (CA) are two-year college survey team members.

➤➤Student Mathematics League, Cont from page 8

may or may not be eligible to participate in the SML competitions. If an institution would like to participate, a committee has been formed which will review the programs offered at the school and make a determination as to their eligibility for participation in the SML. Any such college may request a review by sending an email to the SML Coordinator, Susan Strickland, at sml@amatyc.org.

See you in Boston!

AMATYC FILLS CONFERENCE COMMITTEE POSITIONS



Assistant Conference Coordinator: Judy Williams, Tidewater CC, has been appointed to the position of assistant conference coordinator (ACC) effective immediately. She has been an active member in AMATYC serving on various committees. From 2001-2007 Judy served as president-elect, president, and past president of VMATYC, the Virginia Mathematical Association of Two-Year Colleges. Many AMATYC members will remember Judy for the outstanding job she did in the position of local events coordinator for the 2008 AMATYC Annual Conference in Washington, DC. In her position of ACC, Judy will work closely with Keven Dockter, conference coordinator, handling the many duties regarding the conference publications

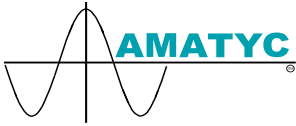
Presider Chair: Darlene Winnington, Delaware Technical and CC, will join the conference committee following the 2010 AMATYC Annual Conference in Boston in the position of presider chair. She will take over the duties from Bob Malena who has held the position for the past 9 years. Darlene is currently chair of the Teacher Preparation Committee and has been a speaker (and presider) at many AMATYC conferences.



Exhibit Chair: Frank Goulard, Portland CC, Portland, OR, has accepted the position of exhibit chair for AMATYC. Frank is a former president of ORMATYC, Oregon Mathematical Association of Two-Year Colleges, and currently serves the affiliate as secretary. Since 1992 he has been the organization's exhibits chair coordinating all

aspects involving the exhibitors at ORMATYC's annual statewide conference. Frank has been department chair at PCC since 1997 and is looking forward to contributing to the conference committee. Frank will begin the position following the 2010 AMATYC Annual Conference in Boston but has already been working with the current exhibit chair Jay Martin to allow for a smooth transition.

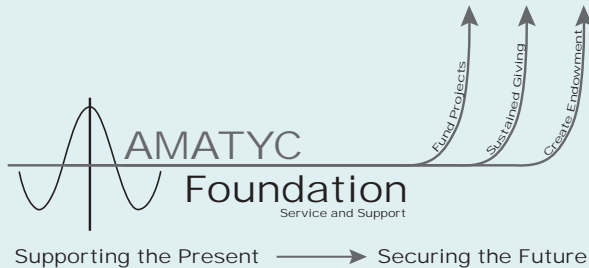
Please congratulate and thank these members when you see them in Boston in addition to the outgoing members of the conference committee!



Kathryn Kozak, Editor
AMATYC News
Southwest Tennessee CC
5983 Macon Cove
Memphis, TN 38134

2010-2011 AMATYC FOUNDATION CAMPAIGN

Be a part of the action!



The AMATYC Foundation is working hard to support the mission and goals of AMATYC and planning to launch its 2010-2011 campaign on August 1. Campaign activities will include a campaign drive to fund projects, short- and long-term, implementation of a sustained giving opportunity for AMATYC members, a raffle at the 2010 Annual Conference in Boston, and more. Of special note will be a plan to create and fund an AMATYC Foundation endowment. More information about the new activities of the Foundation and new ways in which you can support it will be posted on the AMATYC website (www.amatyc.org) August 1, 2010.

Dates To Remember!

2010 Annual Conference in Boston
Discount Registration Deadline:
Postmark by September 30, 2010
Online or Fax by October 7, 2010

Teaching Excellence Award
Nomination Deadline:
December 6, 2010

AMATYC Executive Board
Nomination Deadline:
February 1, 2011

Download *The Right Stuff* modules:
As Soon as Possible
www.TheRightStuff.AMATYC.org/

**For more information visit
www.amatyc.org**