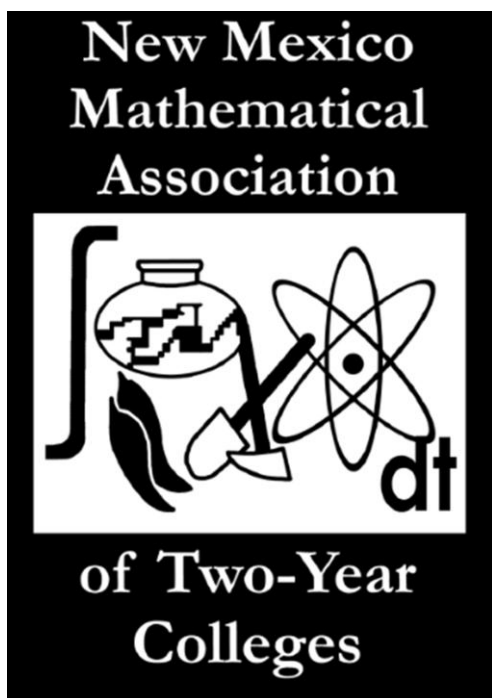


# NMMATYC News

Texas Mathematical  
Association of Two-Year Colleges

Spring 2013

Make Plans To Attend Our  
Spring Conference April 13  
& 14 at NMT. – See Pg. 10



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# A Message From The President

- Philip Kaatz

Greetings,

We are nearly a month into the spring semester already. I hope yours is less hectic than mine has turned out to be, but I suspect some of you are as busy as I am, if not more so. This year the annual NMMATYC conference will be a joint meeting with the southwest section of the MAA. It will be held at New Mexico Tech in Socorro, NM on Saturday and Sunday, April 13-14, 2013. Prof. Bob Devaney, president of the MAA and a well known expert on fractals and chaos will be our Saturday evening banquet guest speaker. We also have a tentative commitment from Dr. Bridgette Russell, operations director of the NM HED to speak at our Saturday luncheon about the changes HED envisions for the developmental math curriculum in the state. She is also planning to attend the articulation meeting we have planned for Saturday afternoon. Preliminary information about the conference has been posted on our website at <http://www.nm.matyc.org/meeting.html>.

Please visit our conference link and consider presenting at the conference. Every one of us very likely has something to share that would be of interest to the rest of the mathematical community throughout the state.

Even though preparing a conference presentation can be a lot of work, sharing your expertise and experiences is a great way for each of us to grow professionally and to be better educators. If you have additional questions or comments about the conference program, you can contact our conference chair, Prof. William Stone at [wstone@nmt.edu](mailto:wstone@nmt.edu).

As usual, we also plan to honor our top students at the conference through the Michelle Jimenez Scholarship, the Vicki Froehlich Scholarship, and the Student Mathematics League participants. We are still accepting nominations for the student scholarships, so please be sure to send in your nominations and to encourage your students to apply. Information and application forms are available on our website <http://nm.matyc.org>. Applications are due March 1, 2013.

The American Mathematical Association of Two-Year Colleges (AMATYC) is a wonderful organization that offers us many professional opportunities. Please consider becoming a

member of AMATYC and attending AMATYC conferences. The southwest section of AMATYC (AZ, NM, OK and TX) is planning a regional conference in Flagstaff, AZ from June 14-15, 2013. You can find details and application forms at their website:

<https://sites.google.com/site/2013july/>. AMATYC is also continuing to provide a scholarship for one person to cover the AMATYC member's early registration at the fall conference in November in Anaheim, CA. If you have not had an opportunity to attend an AMATYC conference in the past and you would like to have this scholarship, please let me know.

I hope you all have an enjoyable semester and please plan on coming to the conference in Socorro. I fully expect that you will have a wonderful time there, professionally and socially.

Best regards,

Philip Kaatz

[philipk@mesalands.edu](mailto:philipk@mesalands.edu)

Hello to all members of NMMATYC. Many of you know me, but some of you I have not met. I am starting my second year as the Vice President. I am really excited about all the activities that the SW Region is doing this year. One of those activities is the AMATYC Southwest Regional Conference, which is held June 14-15 at Coconino Community College in Flagstaff, AZ. The website is [tinyurl.com/swamatyc/](http://tinyurl.com/swamatyc/). Currently, applications are being accepted for presenters (through February 28, 2013) and presiders (through April 7, 2013). You can also register for the conference. The registration deadline for early registration is May 17, 2013. I hope to see all of you there. Flagstaff in June is quite nice, usually in the 70s and 80s and plenty of sunshine

I am planning on attending the NMMATYC meeting on April 14-15, 2013 at New Mexico Tech in Socorro. I hope to meet you there.

There are many opportunities for being involved in AMATYC. One of those is to serve on a committee. At [AMATYC.org](http://AMATYC.org), you can also find information on the various AMATYC committees. If you can't attend the committee meeting at the annual conference, you can still participate, since most work of a committee is done through email and list servers.

Appointments will take place this year for state delegates to the AMATYC Delegate Assembly. State delegates' duties are:

1. Attend Delegate Assembly (no reimbursement).
2. Appoint campus representatives for the colleges assigned to him/her by the Regional Vice President.
3. Actively solicit membership in AMATYC, especially membership of campus representatives.
4. Assist the Regional Vice President in updating the list of potential AMATYC members from his/her state/province.

Encourage articles for

5. Assist the Regional Vice President in updating the directory of two-year colleges in his/her state/province.
6. Furnish the Regional Vice President with a calendar of activities and concerns of members from the state/province for possible inclusion in the regional page of the AMATYC *News*.
7. Encourage articles for the *MathAMATYC Educator* and other AMATYC publications.

Appointments will take place in April of this year. If you are interested in being a state delegate, please let me and your affiliate president know by March 31.

In addition, AMATYC is going to revive the position of campus representatives. Campus representatives have the following duties:

1. Assist the Regional Vice President in updating the directory of two-year colleges in his/her state/province.
2. Furnish the Regional Vice President with a calendar of activities and concerns of members from the state/province for possible inclusion in the regional page of the AMATYC *News*.
3. Encourage articles for the *MathAMATYC Educator* and other AMATYC publications.
4. Keep the Regional Vice President aware of the changing curriculum patterns at his/her college by sending news related items to the assigned delegate.
5. Furnish the Regional Vice President items of interest from his/her school for

# A Message From The Vice President

- Kathryn Kozak



6. Encourage colleagues to submit articles to the *MathAMATYC Educator*.
7. Solicit AMATYC institutional membership at home institution.

Please let me know if you are interested in being a campus rep.

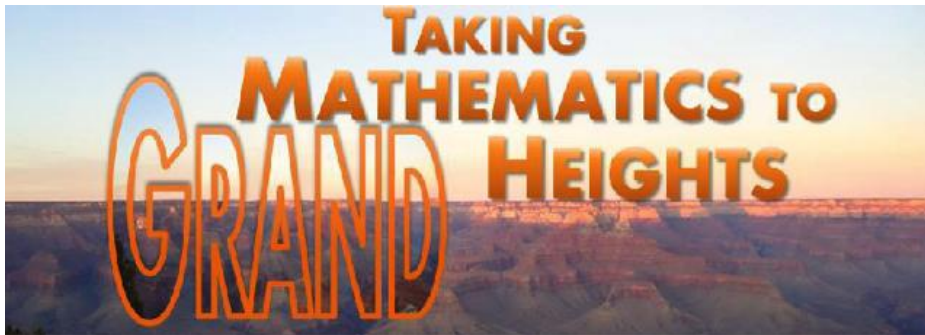
The AMATYC *News* is the newsletter of the AMATYC, and contains important information from AMATYC. Please read the *News* to learn more about AMATYC, and consider writing an article. You can also write articles for the AMATYC Journal called the *MathAMATYC Educator*.

I look forward to working with you this year. Please let me know if you have any questions or concerns.

Kathryn Kozak

[Kathryn.kozak@coconinio.edu](mailto:Kathryn.kozak@coconinio.edu)

Vice President of the Southwest Region of AMATYC



## You're Invited

The Southwest Region of AMATYC invites you to the beautifully wooded surroundings of Flagstaff, Arizona this summer for our regional conference on June 14 – 15, 2013. The conference, "Taking Mathematics to Grand Heights," will be hosted by Coconino Community College's Lone Tree Campus.

At the base of the San Francisco Peaks and an elevation of 7000 feet, Flagstaff is the perfect location for a summer getaway. Flagstaff offers numerous hiking and biking trails in the area, is a one and a half hour drive from Grand Canyon National Park, minutes from two other national parks, 40 minutes from Sedona, and about an hour from Meteor Crater.

We are currently accepting submissions for presenters and presiders. Presenting will provide you with an excellent opportunity to share your knowledge and experience with mathematics colleagues throughout the Southwest. Presiding is an excellent way to support our presenters and play a key role in making the conference run efficiently.

Visit the AMATYC Southwest Region Conference website: <http://tinyurl.com/swamatyc/> to register, present, preside or to check out the local attractions.

# Soliciting Nominees For the David Lovelock teaching Excellence Award



## Soliciting Nominees for the David Lovelock Teaching Excellence Award

Nominations will be taken until March 1<sup>st</sup> for the David Lovelock Teaching Excellence Award which was established to honor educators who have made outstanding contributions to mathematics at the two-year college level. Nominations may be made by any individual or group, including self-nomination. The nominator is responsible for completing the short nomination form that is found on the NMMATYC website at <http://nm.matyc.org>.



# GET THE WORD OUT!

## STUDENT SCHOLARSHIPS



Get the Word Out on Our  
Student Scholarships



As a NMMATYC member, please help spread the word to colleagues and students about the two student scholarships in the amount of \$500 each that are being currently being offered. Students receiving the scholarships must have completed a minimum of 12 credit hours (6 hours must be from a New Mexico or El Paso 2-year college), maintained an overall GPA of 3.2 and cumulative GPA of 3.5 in all math courses. Complete requirements and application forms for both scholarships may be found on the NMMATYC website at <http://nm.matyc.org>. The deadline to apply is March 1<sup>st</sup> and students may apply for both scholarships.

The **Michelle Jimenez Memorial Scholarship** is awarded each year to a deserving student who is pursuing a career in a field that requires a large amount of mathematics. The **Vickie Froehlich Memorial Scholarship** is awarded each year to a deserving student who is pursuing a career in education with an emphasis in mathematics.

# Numbers and Life

By Ms. Melinda Camarillo and  
Dr. Violeta Chavez

Ms. Melinda Camarillo, Mathematics Instructor at El Paso Community College (EPCC), and Dr. Violeta Chávez, Biology Instructor at EPCC, in conjunction with faculty at New Mexico State University (NMSU), have been awarded a TUES (Transforming Undergraduate Education in STEM fields) grant from the National Science Foundation. The TUES program was developed to provide support to strengthen undergraduate STEM (science, technology, engineering, and mathematics) curricula and teaching practices. The grant will be funded through the summer of 2014, with the possibility of renewal for 4 more years.

Educators from the Departments of Biology and Mathematics at NMSU and EPCC will integrate biology and mathematics instruction into some of their courses. At NMSU, the instructors are creating a new course that combines material from biology and mathematics. This course will naturally fit into the Mathematical Biology Program at NMSU, whose focus is to provide students with long-term, cohort-based research experiences that combine biological experimentation with mathematical modeling.



Learning Community Students getting to know their campus while practicing their measuring skills. They had to measure the height of Möbius strip.



Students in the Spring 2013 learning community measuring the slope of the cactus mound at EPCC Transmountain Campus

At EPCC, a learning community has been set up at the Transmountain campus that combines MATH 1314 (Pre-Calculus I) and BIOL 1406 (Introductory Biology for Science Majors). The first offering of the learning community is currently underway this Spring semester. Ms. Camarillo and Dr. Chavez are working together to integrate mathematics and biology concepts into their respective courses. However, most of the integration takes place during the Biology lab. As students conduct their lab experiments, they are using mathematics models to analyze and further comprehend the concepts.

Results from this project are expected to identify pedagogically useful linkages between biology and mathematics instruction as well as report on the performance and attitudes of students regarding key biological and mathematical concepts in these integrated courses versus traditional (non-integrated) courses.

For any information regarding this grant funded project, please contact Ms. Camarillo, [mramos91@epcc.edu](mailto:mramos91@epcc.edu) or Dr. Chavez, [vchavez31@epcc.edu](mailto:vchavez31@epcc.edu)

# The Ten Commandments of Mathematics

- i. Thou shalt read thy problem...carefully.
- ii. Whatsoever thou doest to one side of thy equation, do ye also to the other.
- iii. Thou must use thy "common sense", else thou wilt have flagpoles 9,000 feet high. Yea, even fathers younger than sons.
- iv. Thou shalt ignore the teachings of false prophets to do all thy work in thy head.
- v. When thou knowest not, thou shalt look it up; and if thy search still elude thee, thou shalt ask thy All-Knowing Teacher.
- vi. Thou shalt master each step before putting thy heavy foot down on the next.
- vii. Thy correct answer does not prove that thou hast worked thy problem correctly. This argument convincest none, least of all thy Teacher.
- viii. Thou shalt first see that thou hast copied thy problem correctly, before bearing false witness that the answer book lieth.
- ix. Thou shalt look back even unto thy youth and remember thy arithmetic.

Thou shalt learn, read, write, speak, and listen correctly in the language of mathematics, and verily A's and B's shall follow thee even unto graduation.



I want to thank New Mexico Mathematical Association of Two Year Colleges and Michelle Jimenez's parents for funding the scholarship and for inviting me to the math conference in Las Cruces, New Mexico.

A week after graduating from El Paso Community College in May 2012, I had an internship at Rice University in the program called Rice University Summer Institute of Statistics. "The underlying motivation for the Institute is the fundamental interest in attracting more students into graduate work in the Mathematical and Statistical Sciences, and facilitating their transition into research work" (RUSIS website). Thus I had my first experience doing research. It was a great. It allowed me to learn what graduate school is about and what it is like to do research, and it let me consider more career paths in the future. We had meetings with different professors and scientists from different parts of the country, who told us about their work. We visited scientific facilities at MD Anderson Cancer Center and NASA. At first, we had an intensive course in probability and statistical inference and computer laboratory activities where we learned how to program in R, Mathematica, and LaTeX. Then, we actually had the chance to do research in groups on some given topics with help of our mentor and Dr. Rojo who is the director of the program. The topic that my group worked on was Estimators Under The Restriction of Stochastic Ordering. At the end of the program, we had to write a report with our results and present our work in front of the committee.

In fall 2012, I transferred to The University of Texas at Austin. It was my first choice university because they have one of the best computer science programs in the country. In addition to that, a few weeks ago they opened a new CS building which is called the Bill and Melinda Gates Computer Science Complex and which has a great environment for studying and motivation.

Olga Saprycheva

osaprych@gmail.com

The first word that comes to my mind when I think of this school is "challenging"! However, I love it! It's been a very interesting experience for me. My first semester at UT I took Multivariable Calculus, Computer Architecture, and Vector Calculus, the prerequisite for which is Multivariable Calculus. At first, I didn't realize that it might not be the best idea and that it would be very difficult to take a class at the same time as its prerequisite. Thus last semester I had to work really hard in order to understand what was going on in class, but my effort paid off, and I did very well on the final exam. My other classes were very challenging too. I had to get used to having a lot of people in class; on average it was 100 to 120 students in one class.

This semester I'm taking only math and computer science classes again. Furthermore, I'm very excited about the classes I'm taking. They are Operating Systems, Probability, Information Assurance and Security, and Linear Algebra. There are fewer students in the classes I'm taking this semester. I'm really interested in information security right now. I think cybersecurity is very fast growing field that's becoming very important in our lives. That's why I'm considering getting a Certificate in Information Security from UT which is awarded to students who take certain upper-division CS courses. I'm also looking for an internship. This summer I would like to find one in industry. In conclusion, I work very hard, but I'm happy with what I'm doing and hope that I have great career ahead of me. Again, I would like to express my sincere gratitude for assisting with the funding my collegiate experience

**\*\* (Michelle Jimenez Memorial Scholarship Winner, May 2012) \*\***

# **NMMATYC – MAA Southwestern Section Conference**

The annual meeting of the Southwest section of the MAA, held jointly with the annual meeting of the New Mexico Association of Two-Year Colleges, will be happening Saturday-Sunday, 13-14 April 2013 on the New Mexico Tech campus in Socorro

There will be student sessions, talks on issues like on-line education and dual enrollment, a Chairs' Roundtable and more.

Dr. Brigette Russell, Policy Director for the New Mexico Higher Education Department will be speaking. Also, we will be having as an invited speaker Professor Bob Devaney, a well-known expert in Chaos and Fractals and a very engaging speaker!

For more information, including special conference hotel rates and further developments check out our webpage at

<http://infohost.nmt.edu/~wdstone/2013MAA-NMATYCmeeting.htm>

You can also contact the organizers:

Annette LaRussa

[alarussa@nmt.edu](mailto:alarussa@nmt.edu)

Bill Stone

[wdstone@nmt.edu](mailto:wdstone@nmt.edu)



# 2012-2013 NMMATYC Board

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AMATYC Delegate	Joanne Peeples (El Paso C.C.)	<a href="mailto:joannep@epcc.edu">joannep@epcc.edu</a>
Conference Chair 2012	Annette LaRussa (New Mexico Tech)	<a href="mailto:alarussa@nmt.edu">mailto:alarussa@nmt.edu</a>
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Articulation Task Force Liaison	Alyne Fulte (New Mexico State Univeristy)	<a href="mailto:afulte@math.nmsu.edu">mailto:afulte@math.nmsu.edu</a>

(Special Thanks to [Alejandro Bretado](#) for helping put this newsletter together.)