News from the South C's

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Upcoming Events:

- CMC³-South Fall 2011 Mini Conference, October 8, 2011, San Diego City College.

- 37th Annual AMATYC Conference, November 10-13, 2011, Austin, TX.

- CMC³ 38th Annual Fall Conference, December 9-10, 2011, Monterey, CA.

From the President's Desk

Hello!

The close of summer is approaching and many of us have started back to our full-time teaching assignments. Even though we love our work, we often regret seeing the end of summer holiday time. However, this year, many of us are particularly anxious to get back to work, and not just because we are passionate about teaching mathematics.

For California community college instructors, this summer was particularly difficult. Classes were cut and summer sessions were cancelled. Many adjunct and full-time faculty members who count on summer income to meet their regular household budgets were confronted with no, or significantly lower, summer earnings.

The outlook for the coming academic year is also dismal. While many important student service programs have been cut or eliminated, there is little support for faculty and staff absorbing the work of those programs. The legislature has again cut the community college budget by 5% and fees for students have been increased by $10 per unit to $36 per unit. Yet with unemployment in California at nearly 12%, demand for community college classes is still strong.

During these tough times, it is essential for community college mathematics educators to continue to work together to sustain an educational environment that supports student learning. One way that we can work together is to spread the word about job openings; both full and part-time with our membership. If you have openings, please contact the CMC³ South and we will post these on our web site. Another way we can help one another is by contributing funds to support adjunct attendance at our conferences. If you would like to support conference attendance of adjunct faculty by contributing to the CMC³ South, please contact us. Another way that you can meet with other mathematics educators is by attending the conferences held by the CMC³ South.

From the President's Desk continued:

These conferences are still some of the lowest cost conferences in the southland.

The two conferences organized by the CMC³ South are the Fall Mini-Conference and the Annual Spring Conference. The Fall Mini-Conference will be held October 8, 2011 at San Diego City College. We can thank Hoat Le (hle@sdccd.edu) at San Diego City College for organizing this conference. The Annual Spring Conference will be held at the DoubleTree Hotel in Orange on March 2-3, 2012. If you are interested in presenting or presiding, please go to the CMC³ South web site, http://www.cmc3s.org/conferences.shtml, to submit your application.

By working together we can continue to support excellence in teaching and learning mathematics, even in these tough economic times. If you have any issues that you would like the CMC³ South Board to address, please contact me. The board will meet briefly after the mini-conference in October, and then our more formal board meeting is set for December.

Thank You!

Patty George
President, CMC³ South

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Did you know that many California Community Colleges announce full and part-time openings in mathematics at the California Community Colleges Registry Plus? If you are interested in getting more information about full and part-time employment opportunities, please go to http: //www.cccregistry.org.

"Minimizing Remediation"
By Debby Wong, Los Angeles Mission College

My campus, Los Angeles Mission College, recently interviewed to fill several tenure track positions in Mathematics. These new faculty positions will allow my department to pursue new programs and curriculum, one of these being accelerated remedial courses. With this in mind, we asked all candidates the following question: "There has been a recent push to develop accelerated courses in remedial mathematics. What might be some basic considerations in developing such a course?" Of the 33 responses almost everyone pointed out that those critical topics forming the foundation for future courses cannot be skipped. Many answers addressed issues including multiple entry points, placement models, additional tutoring, and counseling resources, but almost all responses suggested that such courses are not for all students. How do we comply with open access requirements but still limit enrollment to students with a high potential for success? Communication between departments and counseling must be improved to insure students are properly advised on accelerated courses. Funding for tutors must be a college-wide priority and not rely on intermittent grant funding.

Accelerated curriculum is only one approach to the problem of increasing throughput. The real question is how do we move all of our students through the remedial curriculum more quickly and effectively and still insure they have the basic knowledge for further course work. Recency requirements for prerequisites are often brought up and just as quickly dismissed citing Title V code or describing students fleeing one campus for another. Research needs to be done on the effect of the time lapse between completing the prerequisite and enrolling in the next course. A recency requirement may have a global effect, shortening remediation by increasing success rates for all students. This may be more difficult in areas where students have several colleges to choose from. To be effective, recency requirements may have to be considered regionally or even statewide. Another often heard argument against a recency requirement is that students may not be able to enroll in the subsequent course for lack of scheduling. Modular or hybrid courses could address this problem and in themselves may also help to increase throughput.

I am sure the reader has additional good ideas, but that is my point. Given the diverse skill levels of our students there is no one size fits all. We must consider initiatives that have a broader impact and the potential to affect all of our students.

Greetings from AMATYC West Vice President Bruce Yoshiwara

This past spring the American Mathematical Association of Two-Year Colleges began providing free webinars for two-year college math faculty. The wide range of topics reflects the interests and expertise from AMATYC committees and is organized by Professional Development Coordinator Maria Andersen.

The webinars are recorded and archived at www.amatyc.org/publications/webinars. In particular, you can view "Unleash the Power of the Tablet PC" with Fred Feldon of Coastline Community College.

The webinars are all free, and AMATYC members get early notification of when to sign up. Information is posted on the AMATYC website (amatyc.org), the AMATYC Facebook page (facebook.com/amatyc), or follow AMATYC on Twitter (@MathAMATYC). Links to past webinars are also available on the AMATYC website www.amatyc.org/publications/webinars/.

The principal goal of AMATYC is the improvement of mathematics education in two-year colleges. If you are not already a member, please consider joining to support AMATYC's efforts to enhance our profession.

The 2011 AMATYC Annual Conference will be November 10 – 13 in Austin, TX. Check out the AMATYC website www.amatyc.org for further information about the conference, AMATYC membership, or any of the organization's activities.

MAA's Course Communities in Undergraduate Mathematics

You can be a part of community of math instructors (and students) sharing and using free resources for a particular math course.

The MAA posted resources for first-year calculus as the start its first Course Community in spring 2011. The next two will be multivariable calculus and differential equations.

Visit http://mathdl.maa.org/mathDL/61/ , explore the resources, and post your own reviews or comments about what you find. As more educators share how they used the resources, the Course Communities become even more useful for future users.

For the Students of CMC³-South
Bob Crise, Crafton Hills College

We wish to congratulate Santa Monica College for finishing 1st in our section, among the CMC³-South's colleges that participated in AMATYC's Student Mathematics League; also we wish to congratulate the top three students from our area.

First Place: *Zihao Yan*, Pasadena City College
Second Place: *Colleen Nelson*, Fullerton College.
Third Place: (tie)   *Ziqi Han*, East Los Angeles College.
Third Place: (tie)   *Ka Man Mak*, Santa Monica College.

If you would like to bring students to CMC³-South's Spring Conference, contact Bob Crise at rcrise@craftonhills.edu .

Upcoming Mathematics Meetings

October 1 – 2, 2011	The History and Pedagogy of Mathematics – HPM Americas www.hpm-americas.org	Point Loma Nazarene University, San Diego, CA
October 8, 2011	California Mathematics Council Community Colleges South Mini-Conference www.cmc3s.org	San Diego City College, San Diego, CA
November 3 – 4, 2011	California Mathematics Council www.cmc-math.org	Palm Springs, CA
November 10 – 11, 2011	AMATYC www.amatyc.org	Austin, TX
December 9 – 10, 2011	California Mathematics Council Community Colleges	Portola Hotel and Spa, Monterey, CA

Who was Jamshid al-Kashi?

by

Dr. Eduardo Jesús Arismendi-Pardi

Orange Coast College

So who was Jamshid al-Kashi? Ghiyath al-Din Jamshid al-Kashi was born in Kashan, a town in Iran not far from Isfahan in the second half of the fourteenth century. Little is known about al-Kashi's life until about the year 1400 when he began to be known for his work, titled *Miftah al-hisab* (The Calculator's Key) which was completed in 1427. In his text, he presents a method of extracting the *nth* root of a number that is strikingly similar to Horner's Method. He also presented the solution of a cubic equation to obtain the value for the sine of one degree. Al-Kashi found that for any angle β ,

$$\sin(3\beta) = 3\sin\beta - 4\sin^3\beta$$
$$\cos(3\beta) = 4\cos^3\beta - 3\cos\beta$$

I have found these nice identities as exercises under the topic of proving identities in both trigonometry and precalculus books. I have found some opportunities to teach some interesting facts about non-Western history of mathematics in my classes to which students have been receptive and curious. For me this is just a way to break some of the monotony of presenting the topic of proving trigonometric identities. In discussing these historical accounts I have also had the opportunity to talk about Baghdad's House of Wisdom which, according to non-western mathematical historians was the intellectual center of the Arab world for nearly 200 years. Personally, I think it enhances my teaching to see the good in all cultures especially now when there is so much intolerance and misunderstanding towards the post 9/11 Arab-Islamic world. Unfortunately, some students still believe that during the European Dark Ages mathematics was at a stand still when in fact a lot of mathematical activity was taking place outside of Europe. Finally, I always make a point to relate to my students that these non-Western mathematical historical events are not meant to either minimize or overshadow important mathematical contributions from Europe and other parts of the world.

Local College Spotlight

Los Angeles Mission College
By Dr. Robert Smazenka

Los Angeles Mission College located in Sylmar California is one of the nine campuses of the Los Angeles Community College District. The college began by offering classes in various locations in the north San Fernando Valley more than 35 years ago. In my 16 years with the college we have opened three new buildings and are completing a new Theater Arts building on the main campus. A new Physical Sciences building opened last year on the East Campus and the new Mathematics-Sciences building will open next year adjacent to it. When I started with the college the department offered about 43 sections of mathematics. We currently offer over 90 sections and our remedial classes for the fall have been fully enrolled since June. With this growth come many challenges.

The Mathematics Department is well respected by our colleagues and the administration for its hard work, camaraderie, and academic standards. With only four tenured faculty we have developed new and updated existing curriculum, introduced technology into the classroom, and through a grant, created and managed the Title V Math Center. But even with the addition of two tenure track faculty in fall 2009, 75% of our sections were still taught by adjunct instructors. This lopsided ratio made it very difficult to ensure that changes were included uniformly in all classes.

This spring, with the support of interim president Dr. Kathleen Burke-Kelly and the concurrence of our new president, Dr. Monte Perez, we hired three new tenure track faculty to begin this fall. With this new opportunity comes the obligation to make a difference.

More than 72% of our incoming students require remediation. Minimizing the time needed to complete a transfer level course is a prime objective for the department. Many students come from local high schools where the requirements for academic success were poorly taught. Changing these attitudes is a college wide imperative and requires close liaisons with Placement and Testing, Counseling, Student Services, and other departments; and these require full time faculty. New curriculum including accelerated and modular courses, summer bridge programs, and the inclusion of computer supplemental instruction labs are opportunities we can now pursue with more vigor.

The new Math and Science Building will raise the profile of these disciplines and reinforce the importance of mathematics in other subjects of interest to our students. If funded, a Stem grant will allow us to remodel the Computer Science Labs and renew the curriculum to best support the college.

This is an exciting time to teach at Los Angeles Mission College and I and my colleagues look forward to the challenges and opportunities before us.

CMC³-South Board and Conference Committee Members

Beginning March 5, 2011

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