

math news

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Course Redesign for Math 102

The Mathematics Department has been working on redesigning its College Algebra course, with goals of two types: (a) to save money for both the institution and the students, and (b) to encourage greater student success in terms of both higher passing rates (without lowering standards) and better preparation for courses that have Math 102 as a prerequisite. The type of redesigned course we envision has a good track record nation-wide of meeting both those goals.

The content of the course will not change all that much, except that there will be greater uniformity from section to section. The delivery, on the other hand, will change considerably, shifting away from the traditional lecture format towards a heavy use of educational software both inside and outside of a computer lab.

MATH 102 will be structured similarly, though not identically, to the new DVMT 100 course. Other improvements will be a dovetailing of DVMT 100 with MATH 102, as well as clarification of entrance expectations for MATH 120 (Pre-Calculus).

There is also a **job opportunity** created by this endeavor. The redesigned course will employ qualified students as lab assistants, working three hours in a computer lab each week and perhaps another hour or so meeting with instructors. There would also be some paid training towards the end of this summer. The pay is expected to be approximately \$800 per term. Doubling up on hours might be possible, with a corresponding rise in pay. Right now there are three WMF morning sections and one TuTh afternoon section that will need lab assistants. For the Spring term of next year there will be additional need for lab assistants.

If you would like to be considered for such a position, or if you would like additional information, contact Dr. Rob Forsythe at rcforsythe@frostburg.edu or by phone at either 301-687-4453 or 301-689-3430.

2012 Symposium Recap

The recent 39th annual FSU Mathematics Symposium was yet again highly successful. Many educators from the tri-state area came to this year's conference, including experienced, novice, and pre-service teachers. The positive feedback received at the end of the day was very encouraging. Patrick Vennebush's featured address was the highlight of the symposium, as he discussed the use of NCTM Illuminations project to stimulate mathematical play. Planning has already begun for next year's symposium.

KME Corner

At the most recent meeting of Kappa Mu Epsilon, Vice President Justin Good delivered a lecture on an application of the Euler characteristic to vector fields. Next year's officers were also elected: Kevin Loftus, President; DeVonte' McGee, Vice President; Debbie Wiles, Secretary (fall); Justin Zimmermann, Secretary (spring); Meghan Voelkel, Treasurer. A picnic will be held Friday, May 11 from 11-2 at Glendening Park at the pavilion near the playground.

Student Studies Abroad

(Report by MATH/ART Major Meghan Voelkel)

This past semester I had the opportunity to study abroad in Newcastle, England. The experience was immeasurable; I acquired knowledge of another culture and surprisingly obtained a better understanding of our own cultural values and biases at the same time. I was lucky enough to also visit Ireland, Scotland, France, Germany and Spain. The trip left me with improved self-confidence, a higher degree of maturity and a desire to continue traveling.

All Boxed In (Solution)

Divide the unit square into four (smaller) congruent squares. By the Pigeonhole Principle we know that of the 9 distinct points at least 3 points will lie in the same square. Since the area of a triangle contained in a square cannot exceed half the area of the square, we can always form a triangle whose area will not exceed $1/8$.

A Fond Farewell

The Mathematics Department bids a fond farewell to Professor Kathleen Elder, who is retiring after this semester. Ms. Elder came to FSU in the spring of 1991 to coordinate our Actuarial Science major, having achieved Fellowship status in the Society of Actuaries by completing their exams and having had actuarial experience at several firms. At FSU, she has taught more than her fair share of Applied Probability and Statistics and Business Calculus, and has been a frequent contributor to *MATH NEWS*. Enjoy Baaaston!

Summer Homework

A bowl contains 50 colored balls: 13 green, 10 red, 9 blue, 8 yellow, 6 black, and 4 white. What is the smallest number of balls that you must pick (blindfolded) to guarantee at least 7 balls of the same color?

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