## Department of Mathematics





## Dear All,

It has been a busy semester! This fall, 25 first year and transfer students entered the department; for spring, we are expecting 6 new students. So, our numbers are looking good. We have started some new initiatives to help our first years, such as a big brother – big sister program and a variety of social events (see below). The math club is revived and active again. Last semester students went to see "The Curious Incident of the Dog in the Night-Time", a trip to the new Museum of Mathematics in NY is planned for spring. Your input and feedback on our program caused us to take a close look at our offerings. We made some additions and changes to the program requirements that are now winding their way through governance.

We also – finally – have a Facebook page as Westfield State Mathematics. Here you can find some of the more recent pictures and activities. Please visit.

As always, if you have any items / announcements / stories / updates on your life etc., we would love to hear from you. Maybe in the next newsletter we can have some updates on YOU? And if you are in the area, do stop by and say hello.

Best Wishes for a happy, healthy, successful New Year! Karin Vorwerk

As some of you know, **Dr. John Judge** stepped down as Chair of the Mathematics Department after 10 years (the maximum time anyone can be Chair). At a party with past and current colleagues and students, he was properly feted and his time as Chair celebrated. I hear he enjoys being able to devote more time to his teaching and students, writing and updating his work books, and having a little less stress. Being the new Chair, I am gaining a whole new appreciation for all the work John did keeping the department running smoothly.



We are saddened by the sudden passing of **Cindy Gendron**, mother of Cassie Gendron. Cassie is a 2005 graduate of our Math department and after obtaining her Master's Degree she returned to WSU as an adjunct. Her mother is a 2010 graduate of WSU's Psychology Department. Cassie has established the Cindy Marie Riley Gendron Memorial Scholarship fund in her mother's honor. The fund is still in its beginning stages, as it still needs to incorporate, but it is on Facebook. Just search for the name. You can contact Cassie at <a href="mailto:cgendron@westfield.ma.edu">cgendron@westfield.ma.edu</a>.

**Dr. Bardwell and Dr. Jaiclin** received the Massachusetts Colleges' and Universities' Online course of Distinction award for their joint statistics course.

It is an honor to announce that **Dr.'s Fleron, Hotchkiss, Ecke, and von Renesse** (Discovering the Art of Mathematics) have been awarded a four year, \$550,000, Type 2 grant from the National Science Foundation to continue their work on using Inquiry-Based Learning in Mathematics for Liberal Arts courses. Of 330 Type 2 proposals, only 32 were awarded funding. Originally supported by a Phase 1 grant from NSF and a generous gift of Mr. Harry Lucas, Discovering the Art of Mathematics will continue its work on:

- Curriculum Materials 10 stand alone, inquiry-based learning guides
- Teacher Resources Designed to support the use of DAoM curriculum materials.
- Professional Development Workshops
- Assessment and Evaluation Measuring the impact of curriculum materials and inquiry-based pedagogy on student achievement and attitudes.

I am also excited that **Dr. Jeff Weeks** has agreed to visit the department, conduct a workshop, and give a talk on the shape of space. Some of you may remember his talk from HRUMC a while back. He is an amazing speaker. I hope that you will have time to come and listen on April 10<sup>th</sup>, 7:00 pm in the Garden Room at the Horace Mann Center (333). Meanwhile, check out some of his work at: http://geometrygames.org/

Please let us know if you are looking for a **job** – or have a job to offer. We get requests for teachers and other positions to be filled on a regular basis.

For those of you that are recent graduates, **Math for America** offers a nice 5 year fellowship program with free tuition and a stipend: <a href="http://www.mathforamerica.org/boston">http://www.mathforamerica.org/boston</a>

## Year One:

- Prepare to become a public secondary school math teacher.
- Full-tuition scholarship to Boston University's Master of Arts in Teaching (MAT) degree program in mathematics
- \$25,000 stipend
- Membership in a rich mathematical community of undergraduate and graduate students, teachers, mathematics educators and mathematicians through workshops, meetings and social events.

## Years Two through Five:

- Teach in a Boston area public secondary school.
- \$50,000 in stipends over four years, in addition to a full-time teacher's salary in a high-need district in Boston
- Mentoring, support and professional development opportunities and participation in MfA Boston corps activities.

In case you would like a challenge, try the **Chair's Challenge Problem** below (It came up at my house during dinner time). And don't forget the spring problem solving competition is coming up later this semester. More info on our website: www.westfield.ma.edu/math

This problem started out as a fair Knödel division problem (a Knödel is a round German dumpling). How can you use a curved spoon to cut a round Knödel into two equal (equal by volume) portions?

Let's simplify the problem. We'll drop a dimension and model the Knödel with perfect a circle of radius one, the spoon by a half circle of radius one. The problem then becomes: Where/how should the circles intersect to create two equal (by area) portions? (No using the handle of the spoon, only two pieces)



Of course, we are having fun, too. For the second time, we held the Annual Dessert Competition with the ENVS department. Mathematics might not have been the winner but we certainly have the cutest desserts. The owls were baked by Aydan Farias and Amanda Haber. All told, 24 dessert chefs entered and 618 votes were cast by those coming to sample. It took several days for the sugar buzz to wear off.

Another cool (cold) event was the s'mores-a-thon, which basically involves meeting one night in early November at the Vorwerk farm, being really cold, having a giant bonfire, eating soup and bread, drinking sort-of hot cider, eating too many s'mores and desserts. We had an expanded night trail lit by 200 light sticks, a slack rope bridge, and the traditional shooting star watch. This year, about 85 faculty, students, alumni, staff, friends and family came. Maybe in 2013 you can come, too?

Last, (no brag, just fact), the math department entered two teams in this year's Josh Billings Run Aground Triathlon <a href="http://joshbillings.com/">http://joshbillings.com/</a> (27 mile bike, 5 mile paddle, 6.2 mile run). We reached our goal of being the best teams WSU had to offer and having a lot of fun in the process.

The Nestor Curve was created by Calculus 1 students using the new DAoM materials.