
A f t e r m a t h

New Undergrad Advisor



We are pleased to welcome our new Undergraduate Advisor, Aleksandra Jovanovic-Hacon. She will be replacing Les Glaser, who is retiring at the end of December. Sandra comes to us from the

University of California, Riverside, where she taught Calculus and Precalculus. She was also an instructor here at the U from 1998 - 2000. She received her M.A. in mathematics from UCLA in 1997. Students with advising questions may drop by her office, 205 JWB or she can be contacted at ahacon@math.utah.edu or 585-1630.

Academic Year REUs

The math department has eight students participating in individual Research Experiences for Undergraduates this fall. They are (listed with their faculty advisors):

Kree Cole-McLaughlin (Mladen Bestvina)
Gary Crum (Misha Kapovich)
Troy Finlayson (Ken Golden)
Nathan Hancock (Aaron Fogelson)
Amy Heaton (Ken Golden)
Ben Murphy (Ken Golden)
Reza Sarijlou (Elena Cherkav)
Michael Woodbury (Aaron Fogelson)

REU Report

by Michael Woodbury

As an undergraduate student I knew that opportunities were available here at our university to be involved in research. Honestly, I had no idea what doing research in mathematics would even be like, but I knew that I wanted to be involved in something. After taking Math Biology 5110-5120, I realized that there are a lot of biological systems that can be modeled mathematically, and I felt confident that I had at least a handful of techniques that I could draw from to do some research in math biology.

For my REU project I have worked with my mentor, Aaron Fogelson, in modeling part of the process of blood clot lysis. Recently, experiments in confocal microscopy have revealed that the structural makeup of the fibrin network that makes up a blood clot determines how lysis proceeds. Primarily, the model that my mentor and I have developed reflects experiments done by J.W. Weisel et al, outlined in their paper "Influence of Fibrin Network conformation and Fibrin Fiber Diameter on Fibrinolysis Speed." In said experiments micro chambers of blood clot of either "tight/thin" or "loose/thick" fibrin networks were loaded from one end with tPA. The experimenters were able to observe the movement of these tPA molecules. TPA molecules activate plasminogen which in turn lyses the fibrin. In our research we have begun to model the movement of tPA in this system via a reaction-diffusion equation.

Much of the research involves including more of the chemical reactions taking place, and tracking the state of these chemicals, but I have discovered that writing code to computationally solve the model and analyzing the computational results is also a large part of any project of this sort. Being involved in this project has been rewarding and fascinating to me, and I am excited to continue during the coming months.

ATTENTION UNDERGRADUATES!

17th National Conference on Undergraduate Research

March 13-15, 2003 at the University of Utah

You are welcome to present or simply to attend. Abstracts are due by Nov. 15. For more information, visit

www.utah.edu/NCUR2003

FYI...

Sarah Strong, one of our Executive Secretaries has been reclassified as a project coordinator. She will continue to coordinate the VIGRE grant and will assume similar responsibilities for the IGERT grant.

Sarah joined our staff a little over a year ago and has performed her duties well. She received her B.A. from Boston College and is currently doing graduate work in the College of Education with her emphasis on Higher Education Administration.

Thank You Dinner

A thank you dinner for Jim Carlson and Nicole Guillemet in recognition of Jim's seven year tenure as chairman will be held Monday, October 21 at the Memorial House in Memory Grove Park. The cost for the dinner will be \$20 each for tenured professors and \$15 each for postdocs, graduate students and assistant professors. The charge for your spouse or partner is the same as for yourself. If you plan to attend, please let Annetta Cochran know by October 15 so that a count can be given to the caterers.

NOTICE

The 2002 Fall Western Sectional Meeting of the AMS will be held here in the Department October 26th and 27th. For more information you can access the full program on the web at:

www.ams.org/amsmtgs

GRE Review

by **Javier Fernandez**

Every year thousands of undergraduate students decide to take the GRE Subject tests. The Mathematics test is the target for most students with mathematical skills and interests. Last year Hugo Rossi started a seminar aimed at any student planning to take that test. Eight students participated that first year. This year, due to the increased number of people interested in the seminar I added my efforts. The team was complete when graduate students Emily Putnam and Nathan Albin joined.

We are currently holding weekly meetings where we solve problems from actual exams as well as from a practice book. Our goal is to help the students review the material that they need, as well as learn techniques for approaching the test problems. More generally, we provide an environment where those "suffering" the preparation process can ask questions and look for help. For more information visit the seminar's web page (<http://www.math.utah.edu/~jfernand/gre-prep/>).

Dean's Lists

Congratulations to our undergraduate majors who made the Spring or Summer 2002 Dean's Lists, earning a GPA of 3.5 or higher while enrolled for at least 12 credit hours (* = Dean's List both semesters): Lisa Andrews*, David Ayala*, Maria Bell, Afton Brown, Rex Butler, Daniel Campbell, Jennifer Clark, Pedro Coronel, Sean Cummings, Elizabeth Dea, Song Du, Traci Eldrege, Amanda Ellis*, John Faust, Christopher Gray, Nathan Hancock, Yasushi Inoue, Stephen Jensen, Ryan Kirkham, Predrag Krtolica, David Lindsay, Ron McKay, Wendy Muir*, Angela Nay, Nancy Newren, Helen Obzansky*, Jeremy Pecharich, Phinitthana Pornthaweeephokhasub, Heather Raddatz, Lucynthia Robbins, Cindy Sandberg, Mindy Scott, Tammie Silotti, Katie Spencer, Jennifer Stauffer, Eunjung Um, Paul Watkins and Michael Woodbury.

Upcoming Events

Thursday, October 31 – Undergraduate math major advising lunch, 11:00 – 1:00. RSVP to Angie Gardiner, 585-9478, gardiner@math.utah.edu.

Wednesday, November 20 – Mathematics Career Day, 1:00 - 3:30, ASB 210.

What do you get when you take the circumference of a jack-o-lantern and divide it by its diameter?

Pumpkin Pi

Aftermath is published monthly during the academic year. Issues of the newsletter will be archived on the web at:

www.math.utah.edu/newsletter

Angie Gardiner, Editor. Please contact her if you have an idea or article to submit (gardiner@math.utah.edu)