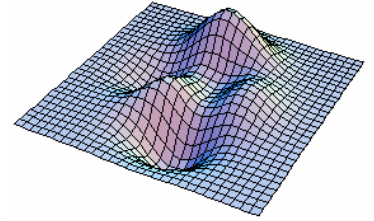
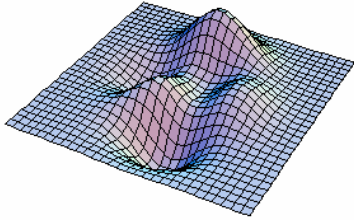


*Mathematics Department
Student Newsletter*



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WELCOME NEW FACULTY MEMBERS

The Mathematics Department is welcoming two new faculty members this Fall. Here is a little about each of them, in their own words.

Dr. Heather Hulett: "I received my undergraduate and master's degree from The University of Kansas (Go Jayhawks!), and my Ph.D. from the University of Illinois, Urbana-Champaign. My first job was at Miami University--the one in Ohio, not Florida. I was there for six years until I married Todd Will (see below). I moved to North Carolina and spent the last three years doing odd jobs (ask me about comparative technical writing textbooks, SAT questions, or vision therapy). I'm looking forward to being active in student projects--come and talk to me if you are interested!"

I enjoy cooking (and eating), traveling, hiking, bird watching, and music. I am very happy to be back in a college setting and back in the midwest!"



Dr. Todd Will: "I grew up in Northfield Minnesota, graduated from Carleton College, worked as an actuary for a year in Minneapolis, and then returned to school at the University of Illinois at Urbana-Champaign where I earned my Ph.D. and met my wife Heather Hulett.

I was tenured as an Associate Professor at Davidson College, a small liberal arts college in North Carolina. While at Davidson I also served on a local fire department and helped

build Habitat homes. I will miss the early spring in the south but I am happy to be returning closer to home and family.

My research interests include the connections between computer science and the fields of combinatorics and graph theory. I'm also interested in finding applications of the Singular Value Decomposition and Voronoi Diagrams. Most of the mathematics I look at is easily accessible so I'm always interested in working on projects with students. "



"GUIDE FOR THE MATH MAJOR" AVAILABLE

The "UW-La Crosse Guide for the Mathematics Major" is meant as a resource for current mathematics majors/minors or anyone considering majoring or minoring in mathematics. The guide is available in hard copy in the Mathematics Office – 1020 Cowley Hall and in the mathematics tutoring room – 102 Cowley. There is also an electronic version available on the web at our Departmental home page at www.uwlax.edu/SAH/mathematics.

The guide includes information on requirements for the various majors and minors, course descriptions and the course offering pattern, as well as information on activities on campus, scholarships and tutoring opportunities, internships and undergraduate research, and general career opportunities after graduation. We hope that you will find this a useful source of information on our programs and other activities.

MATH CLUB NEWS

The UWL Math Club is starting to plan their fall schedule of fun and educational activities. The Club usually meets every other week, typically late in the afternoon on Wednesdays or Thursdays. There are no special requirements to attend the meetings other than to have an interest in Mathematics and a desire to socialize with other likeminded students and faculty. The club activities are quite varied, from interesting talks on mathematics or statistics by faculty or students to purely fun social gatherings such as engaging in friendly sporting events to going out for pizza or having a picnic.

Some of last year's activities included some very nice (and understandable) talks by faculty on the mathematics of rainbows, encryption methods for transmitting secure messages, and on conditional probability. We also had some meetings that were very hands-on, including learning some card tricks that have a mathematical flavor, and paper and scissor constructions. Other activities were watching some math movies and going bowling with the Viterbo Math Club followed by pizza at Big Al's.

The great success of the club last year can largely be attributed to the tremendous enthusiasm of last year's student officers President **Matt Wokasch** and co-Vice Presidents **Victor Feltes** and **Jesse Schoenemann**. The good news is that all three will be back this year. The bad news is that Matt is graduating at the end of the Fall semester. However, junior **Jared Brunmeier**, fresh back from a semester in Australia will join the leadership team.

For more information on the Math Club check out our web site <http://www.uwlax.edu/faculty/lang/MathClub/>

STUDENT ACTIVITIES

Tricia Larson received an Undergraduate Research Grant for the project "Statistical Alternatives for studying Success in Elementary Statistics: A comparative analysis for Logit and Linear Regression". Tricia will be working on the project with Dr. Abdul Elfessi.

Matt Bedalov worked on an undergraduate research project with Dr. Bob Hoar. The project related to the redesign of the UW-LaCrosse Mathematics E-Tutor. Results were presented at the UW-La Crosse Undergraduate Research Day.

Eric Stuart also worked on an undergraduate research project with Dr. Bob Hoar. The project was "Developing a volatility weighted duration" (a risk measure arising in finance). Results were presented at the UW-La Crosse Undergraduate Research Day.

Michael Morris worked on a data analysis project with Dr. David Reineke.

400 LEVEL COURSE OFFERINGS FOR SPRING 2003

In order to help you begin to plan your schedule for Spring 2003, we thought it might be helpful to give you some information on the schedule for next semester.

The 400 level courses being offered next semester include:

MTH 408 – Analysis II

MTH 413 – Topics in Linear Algebra

MTH 446 – Analysis of Variance and Design of Experiments

MTH 448 – Operations Research

MTH 461 – Mathematical Physics

CHALLENGING PROBLEMS COMPETITION

The Math Department's challenging problem competition continues this year. The competition is just for fun, with the intention of stimulating interest in mathematics. The competition is open to all students at all levels and all majors. In recent years, the top problem solvers were awarded small prizes for their efforts.

Congratulations to all of the successful problem solvers from last year's competition. A total of 24 students cracked at least one of the challenging problems. Top individual solvers were **John Sullivan, Eric Stuart, Mark Dubey** and **Dr. Dean Whiteway** (alumnus). For their efforts, the top students were awarded either a classic popular mathematical book or a tee shirt at the spring Math Department's Awards Banquet.

Here's how it works for those of you who are new to it. A challenging problem will be posted every two weeks on the Math Club bulletin board outside the tutor room (102 Cowley Hall). After a problem has been up for two weeks all correct solvers will be acknowledged on the bulletin board. A correct solution will also be posted on the bulletin board along with the next challenging problem. If no correct solutions are received in the first two weeks, the problem will remain open until a correct solution is submitted. Students can pick up a copy of the current problem from the envelope on the Math Club bulletin board.

The challenging problems also have their own web site where you can find a statement of the current problem along with all the past problems with their solutions and a list of the correct solvers. The web site is

<http://perth.uwlax.edu/mathematics/POTM/>

Solutions to problems can be submitted to Jeff Boyle, 1033 Cowley Hall.

Problem #1 Fall, 2002

Crossing the Desert

An explorer is at the edge of a desert 800 miles wide. She has a truck but, when full of gas, it only has a range of 500 miles. She may, however, drive out into the desert, dump some gas for later use and drive back. Assuming no losses from evaporation, spillage, etc., what is the smallest number of 500-mile loads she must use to cross the desert?

Submit solutions to 1033 Cowley Hall (Dr. Boyle's office) by 12 noon on Friday, Sept.20. Correct solutions should contain a detailed step-by-step plan for making the desert crossing.