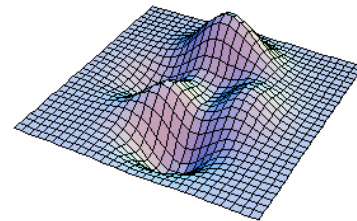
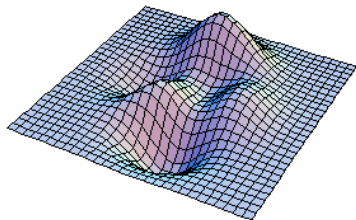


Mathematics Department Student Newsletter



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"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 a major or minor in mathematics. The guide can be found at <http://www.uwlax.edu/mathematics/GuidefortheMajor/c1.htm>.

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.

STUDENT ACTIVITIES

Devin Bickner worked on a summer research project with Dr. Peirce using partial differential equations to model the motion of a plucked guitar string. He proposed an equation that included the effects of dampening and proved that the total energy of this new model decreases as we expect from a real guitar string. Devin solved the general partial differential equation, applied it to the plucked string model, and used Mathematica to "pluck the string" and hear the solution. Devin looks forward to presenting his work at the Pi Mu Epsilon Conference at St. Norbert College this fall.

Lena Spargo spent the summer at the Oregon State University in Corvallis, Oregon taking part in a Research Experience for Undergraduates (REU). She was there for 8 weeks and studied Geometric Tomography with Dr. Solmon and another student. The REU involved 10 students from 6 states. Lena recommends the experience to anyone interested.

MATH CLUB & MATH COFFEE HAPPENINGS

The Math Club is a recognized student academic club that offers social and educational activities. Anyone interested in mathematics, computer science, or statistics is encouraged to become a member. Activities in the past have included interesting mathematical talks (presented at a level appropriate for undergraduate math majors) by invited speakers, math trivia contests, outdoor activities, picnics, potluck dinners and parties, trips to student mathematics conferences, and friendly sporting contests with other academic clubs. Membership and participation are very casual. Everyone is welcome.

Last year was very eventful for the Math Club and the Math Coffee. A total of 14 seminars were held on a variety of topics from "Eine Kleine Music Theory" given by Dr. Karl Kattchee to "A Hands-On, Minds-On Math Club" given by mathematics student Maggie Lee. On one occasion, the Math Coffee was a Math Pizza with pizza and soda being served prior to the talk "Using Graphs to Decode RNA" given by Dr. Leslie Hogben from the Mathematics Department at Iowa State University.

We are already planning a great start to the new semester. To get things rolling this year, we invite you all to join us for the

UW-L All Math Student Fall Picnic

Thursday, September 29th

Weigent Park

16th Street and Cass Street

4:00 p.m. - ???

Activities will begin at 4 pm with food (hamburger, chips, sodas, etc.) being served around 5 pm. **Everyone is welcome!** If you plan on attending, please sign-up in your one of your math classes. The picnic is *FREE*, but donations are welcome.

Currently, we have no elected officers for the Math Club. We are always looking for new students to help out! If you are interested in help to leading the Math Club please contact Dr. Brooke Fridley or Dr. James Peirce. For more information on the Math Club go to <http://www.uwlax.edu/mathematics/mathclub.html>.

In addition to the Fall Picnic, the Math Coffees will be starting up this year, with Dr. James Peirce organizing. Watch for flyers indicating time and location of the Math Coffee. If you have any suggested topics for a Math Coffee or you are interested in giving a talk, contact Dr. Peirce. More details on the Math Coffees can be found at <http://www.uwlax.edu/mathematics/MathCoffees.htm>.

STATISTICAL CONSULTING AT UW-L

What factors contribute the most to the success of the UW-L football team? What factors contribute the most to the health of alpine lakes? Does bullying affect academic engagement? How does road salt affect the marsh? Wouldn't you like to know the answers to these questions? This is just a small sample of the exciting projects taken on (or to be taken on) by students in the Statistical Consulting Center (SCC). Students who have taken MTH 305 or MTH 341 and who have permission from the SCC Director can register for this 1 credit course (repeatable up to 3 credits) and apply what they have learned in class by working as a statistical consultant to faculty, graduate students, and undergraduate researchers at UW-L.

Former student consultant Chad Lorrigan states that "consulting challenges the student's mind and it tests them to see if they have been able to take in what they have been taught" and "consultants are able to learn many new methods that they have never used or even heard about." In addition to gaining valuable, practical experience, student consultants in the SCC get a chance to collaborate with others in research, develop communication and technical writing skills, and help others while adding an important component to their resume. Another former consultant, Tony Batzler, writes "I found my experience with the SCC to be very satisfying – I was given the opportunity to expand on my understanding of statistics as well as my skills in computer science in designing a web survey."

If you are interested in registering for statistical consulting (MTH 440) please contact Dave Reineke in office 1030 Cowley Hall, by phone at 786-6607, or by e-mail at reineke.davi@uwlax.edu

400 LEVEL COURSE OFFERINGS FOR SPRING 2005

In order to help you begin to plan your schedule for Spring 2005, 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 410 – Complex Analysis
- MTH 412 – Abstract Algebra II
- MTH 442 – Mathematical Statistics II
- MTH 447 – Nonparametric Statistics
- MTH 480 – Studies in Applied Mathematics

CHALLENGING PROBLEMS COMPETITION

The Math Department's Challenging problem competition resumes this fall. 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.

Here's how the competition works. A challenging problem will be posted every two weeks on the Math Club bulletin board outside the Math Research Room (102 Cowley Hall). After a problem has been up for two weeks, all correct solvers will be acknowledged on the bulletin board and on the department's web site. A correct solution will also be posted at both locations. If no correct solutions are received in the first two weeks, the problem will remain open until a correct solution is submitted. Incorrect solutions are never publicized so there is no risk of embarrassment if your "solution" proves to be incorrect. We receive many incorrect solutions to our problems.

Students can pick up a copy of the current problem from the envelope on the Math Club bulletin board or view it at the problem's web site

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

(You can just go to the department's web page and follow the link to the challenging problem competition.)

To submit a solution to the current problem, just drop it off at 1033 Cowley Hall (Dr. Boyle's office).