Math 311M: Honors Concepts of Discrete Mathematics, Fall 2011
Mo, We, Fri 10:10-11:00am, 138 Henderson South Bldg

Instructor: Professor Kirsten Eisenträger
Office: 422 McAllister Building
Office Phone: (814) 863-4127
Office hours: We 11:15-12:15pm, Th 1:45-3pm, and by appointment
Course webpage: http://www.math.psu.edu/eisentra/courses/math311M

Course description: Introduction to mathematical proofs; elementary number theory and group theory. This is a course on basic methods of mathematical thinking and fundamental mathematical structures. While the calculus sequence concentrates on using well-developed techniques in standard situations, the honors section MATH 311M will teach you the most fundamental methods of thinking about problems in concrete contexts throughout the natural, social and information sciences. You will learn to understand and write proofs. Interrelations between seemingly distant areas of mathematics will be emphasized.

List of Topics: We will cover most of the first five chapters; and time permitting, a few parts of Chapter 6. There may be some additional topics covered in the lecture.

Grading Policy: Grading will be based on a total of 500 points:

- Homework (75 points)
- First in-class midterm exam (100 points)
- Second in-class midterm exam (100 points)
- Writing project, approximately 5 pages, due in December (75 points)
- Final exam, December (150 points)

Homework: There will be a number of homework assignments which will be collected and graded. Homework is due at the beginning of class on the given due date. No late homework will be accepted without approval from the instructor in advance. You are encouraged to discuss the homework assignments with other students in the class; however, if you do, you should write on your homework submission the names of the students with whom you discussed the assignment. You are required to write up your own solutions.

Examinations: Two in-class midterm exams will be given. The first midterm will be on Friday, September 30. The second midterm will be on Friday, November 4. The final exam in this course will be comprehensive. It will be given during final examination week, December 12-16, 2011. Please do not arrange to leave University Park before the end of this week. Travel plans will not be considered an excuse to take an examination on a different date.

Academic Integrity: Students are expected to abide by the University and Eberly College of Science policy about academic integrity; please refer to the following webpage: http://www.science.psu.edu/academic/Integrity/index.html