

MATH 419/519

Introduction To Algebra spring 2006

Instructor

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Office hours

TR 11:00-12:00 and by appointment

Class times

TR 9:30-10:50 Mathematics Bldg 150

Recitations

T 8:00-8:50 Mathematics Bldg 250

Web page

www.math.buffalo.edu/~badzioch/mth419

Course description

The course will provide introduction to some topics of abstract algebra. We will start by studying properties of integers: divisibility, prime numbers, congruences, modular arithmetic etc. Then we will move on to rings i.e. algebraic structures which generalize the notion of integers. As it will turn out many properties of integers which we will encounter in the first part of the course can be generalized to some classes of rings. On the other hand the general theory of rings helps to answer questions about integers.

Textbook

There is no textbook for this class. There are some good lecture notes available online which overlap with parts of the course. Links to these notes will be provided on the course web site.

Maple

Computers are very useful tools for experimenting with algebra. Some lectures will be illustrated with calculations done in Maple - a powerful mathematical computation software. You will not be required to work with Maple on your own, but you may want to try it anyway. It is available at all public CIT sites. You can also buy a one year license for Maple at UBMicro for a nominal charge.

Homework

Homework problems will be assigned each Thursday and will be collected in class the following Thursday. Graded assignments will be distributed during recitation sessions. Recitation sessions will be devoted to answering any questions regarding homework problems you may have.

Exams

**Midterm exams: Tuesday, February 28
 Tuesday, April 4
 Thursday, April 27**

There will be no final exam for this class

Grading

**Homework 25%
Midterm Exams 3x25%**