MATH 437/537   Number Theory   Sep. 2013

Instructor: Dragos Ghioca, Math Annex 1223, dghioca@math.ubc.ca.
Lectures: MWF 10:00 - 11:00, MATH 105.
Course webpage: http://www.math.ubc.ca/~dghioca/courses/537.html
Office hours: M 11:30 - 12:30, Tu 12:00 - 1:00, Th 10:30 - 11:30, F 12:30 - 1:30.

Course outline: Section numbers below refer to the textbook.

Chapter 1: Divisibility, primes.

Chapter 2: Congruences, Chinese Remainder Theorem, Number Theory from an Algebraic Viewpoint.

Chapter 3: Quadratic Residues, Quadratic Reciprocity, Sums of squares.

Chapter 4: Arithmetic functions.

Chapter 5: Diophantine equations.

Other topics: Polynomially recurrence sequences, Algebraic Numbers.

Text: Introduction to the Theory of Numbers, 5th edition, by Niven.

Evaluation: The final mark will be based on homeworks.

Homework: There will be 6 homework assignments. No late assignments will be accepted. The homeworks are due at the beginning of class on the due date:

September: 20;

October: 4, 18;

November: 1, 15, 29.

Policies: Missing an assignment will normally result in a mark of zero. Exceptions may be granted in two cases: **prior consent** of the instructor or a **medical emergency**. In the latter case, the instructor must be notified as soon as possible (preferably before the test), and presented with a doctor's note immediately upon the student's return to UBC. When an exception is granted for the missed homework, there is no make-up assignment, and the other homeworks will be used for the final mark. When two homeworks are missed with proper justification and documentation, then the student will have to write a final exam to make up for the missed homeworks.

The Instructor reserves the right to change the present course outline at any time during the semester.