Instructor: Prof. Ivan Horozov  
E-mail: ihorozov@brandeis.edu  
Office: Goldsmith 205  
Phone: 6-3056  
Class schedule: Mon, Wed, Thu 12.10p.m. – 13.00p.m.  
Office hours: Mon, Wed, Thu.  
Textbook: A Friendly Introduction to Number Theory by J.H. Silverman,  

Syllabus  
Chapters 1 to 13  
Chapters 16 to 18  
Chapter 22 to 24 /if time permits/

Class announcements: The LATTE system will be used for communication with the entire class including reminders for the weekly assignments.

Homework and projects:  
Homework will be assigned and collected every week, graded and returned to you regularly. At the end of the course /the last two weeks/ a project will be assigned to each of the students for an independent study. One should prepare and present a topic from the book.

Suggested directions for solving problems:
• There are many directions and many solutions to a given problem;  
• Do many examples;  
• Find a pattern and describe this pattern in words;  
• Think of geometric interpretation such as counting points in a geometric shape  
• Think of algebraic interpretation such as multiplication division, factorization and use of formulas

Programming:  
• One can consider many examples by writing a computer program;  
• One can also try to implement an existing algorithm (such as finding the greatest common divisor of two integers);  
• For implementation of an algorithm the following is important:  
  - Input and output should be clearly stated;  
  - The computer algorithm should be explained;  
  - There should be an "error" message if the algorithm does not lead to an answer (for example if there is a division by zero)

Relax! You do not have to consider all these directions for a given problem. For each problem consider a few of the suggested directions.
**Grading formula:**
Your grade will be based on the homework and the project. All the homework make 80% of your grade, the project - 20%.

**Students with disabilities:** If you are student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in 38b, please see me as soon as possible.

Please, do not hesitate to send/ask me any questions that you have.