

Topics in Number Theory II – MA 844
Algebraic Number Theory
Spring 2014

Professor: Robert Pollack
Office: MCS 232
E-mail: rpollack@math.bu.edu
Office hours: Tuesday 2:30–3:30 or by appointment

Course website:

<http://math.bu.edu/people/rpollack/Teach/844spring2014.html>

Course Material: This course will give an introduction to algebraic number theory making a detailed study of the rings of integers of number fields including the uniqueness of factorization into prime ideals, the class group and the unit group. We will also study local fields, adeles and ideles, leading to the formulation of local and global class field theory.

Homework: Problem sets will be assigned throughout the semester every other week (posted on the course website). You should feel free to work on these questions with your classmates, but all solutions that are turned in must be written up individually.

Student projects: Each student will be asked to make a short presentation in class near the end of the semester going into greater depth of some topic covered in class. Alternatively, instead of a presentation, you may write a 5-10 page document (in LaTeX) on this topic. We will begin discussing precise topics halfway through the semester.

Grading: The final grade will be determined by the following breakdown:

Homework	80%
Presentation	20%

References: See the course website for the full list of references.

Academic honesty policy: Given the sterling qualities of character to be found in each and every student at Boston University, it is certainly unnecessary to mention that plagiarism and cheating are not only dishonest and immoral, but are also against the policies of Boston University. Please keep in mind that, in the highly unlikely event that you do choose to plagiarize, cheat or copy your classmates problem sets, you will be referred to the University Academic Standards Committee for disciplinary action.