

Math 340
Number Theory
Fall 2010

Professor: Pete Goetz
Office: BSS 358

CRN: 43195
Time: 8:00-8:50 MWF
BSS 408

Office Hours: Monday 3-4, Tuesday 9-9:50, Wednesday 10-10:50, Thursday 11-12, and by appointment.

Phone: 826-3926

Email: pdg11@humboldt.edu

Website: www.humboldt.edu/~pdg11

Textbook: Elementary Number Theory, 2nd Edition, Charles Vanden Eynden.

Course Objectives: At the conclusion of this course the student should:

- I. Understand and be able to state some basic results of elementary number theory.
- II. Be able to prove some fundamental theorems of number theory.
- III. Have a sense of the historical progression of human understanding of the natural numbers as well as knowledge of some of the key contributors to number theory and their main accomplishments.
- IV. Have knowledge of some applications of number theory to cryptography and internet encryption and security.

Homework: Homework will be collected once a week, usually on Wednesday. The homework assignments can be found on the Assignments handout. The due dates are listed there as well as on the timeline handout. Only hand in the boldfaced problems, the others are for extra practice. I cannot stress enough the importance of starting the homework as early as possible. Some of the proof problems could require considerable thought and you may need to ask me for hints. **Start your homework early. I will not accept late homework.** Your lowest homework score will be dropped from your final grade.

Reading Quizzes: We will have a short reading quiz almost every Monday. The dates of the quizzes are on the timeline handout. Each quiz will cover the assigned reading from our textbook. **No make up quizzes will be given.** Your lowest quiz grade will be dropped from your final grade.

Exams: We will have two midterm exams during the semester in addition to a cumulative final exam. The dates for these exams are given below. Mark your calendars and plan accordingly as **no makeup exams** will be given. Each exam will consist of four parts: definitions, theorem statements, true or false, and statements to prove.

Mid-term Exam 1: Friday, October 1

Mid-term Exam 2: Friday, November 12

Final Exam: Friday, December 17, 8:00-9:50

Grading Components:

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| HW | 25% |
| Quizzes | 10% |
| Exams | 20% each |
| Final | 25% |

Important Suggestions:

1. Don't get behind in your work, homework, etc. Come to class every day.
2. Participate in class, ask questions, make use of my office hours.
3. Work together on homework, form a study group, however make sure everyone is participating equally.
4. Read the book! You must spend time reading each section carefully. The best way to read a math book is to first read the section like it's a novel, ie don't skip around and don't worry about verifying details. **Then** read it again, have a pen and scratch paper handy and verify details.

Academic Integrity: Please see http://studentaffairs.humboldt.edu/judicial/academic_honesty.php for HSU's policy on academic honesty.

Emergency Evacuation Procedures: The evacuation plan for the classroom is posted on the orange signs. Also review http://studentaffairs.humboldt.edu/emergencyops/campus_emergency_preparedness.php for information on campus Emergency Procedures. During an emergency, information can be found on campus conditions at: 826-INFO or www.humboldt.edu/emergency.