

Math 104A: Fall 2012
Syllabus

Instructor: Brendon Rhoades
Instructor's Email: bprhoades@math.ucsd.edu
Instructor's Office: 7250 APM
Instructor's Office Hours: 10:00-11:00 am, MWF *or by appointment!*
Lecture Time: 9:00-9:50am, MWF
Lecture Room: B412 APM
TA: Tristan Sandler
TA's Email: tjsandle@ucsd.edu
TA's Office: 6351 APM
TA's Office Hours: 11:00-1:00 pm, Tu
Discussion Time: 8:00-8:50 am, Tu
Discussion Room: B412 APM
Final Exam Time: Wednesday, 12/12/2012, 8:00-10:59 am
Final Exam Room: To Be Announced

Course Description: This is a first course in number theory. Topics will include unique factorization in the integers and other domains, linear Diophantine equations, the ring of integers modulo n and its unit group, and quadratic residues and reciprocity.

Prerequisites: Math 109 or Math31CH or consent of instructor. If you are unsure about whether your background is sufficient for this class, please talk with the instructor about this as soon as possible.

Textbook: *Fundamentals of Number Theory* by William J. LeVeque.

Grading: Grades will be calculated based on homework assignments given roughly once per week, two midterm exams held in class, and a final exam. The weighting is as follows:

Homework: 25%
Midterm 1 (in lecture, 10/24/2012): 20%
Midterm 2 (in lecture, 11/19/2012): 20%
Final Exam (location TBA, 8:00-10:59 am, 12/12/2012): 35%

Homework Policies: Homework may be submitted in class, in the TA's mailbox in the basement of APM, or by email. *Homework turned in after 5:00 pm PST on the day that it is due will not be accepted for any reason.* Your lowest homework score will be dropped when calculating your final grade. Collaboration on homework assignments is both permitted and encouraged, but your submitted assignments must be written in your own words. Your solutions must be written in English sentences (with subjects, verbs, punctuation, etc.) and your assignments must be clearly legible. If you are concerned about your handwriting, it

may be in your best interest to type up your assignments - at any rate, it's never too early in your mathematical career to learn L^AT_EX.

Midterm Policies: Electronic devices and collaboration are both strictly prohibited on midterm exams. The midterms are closed book and closed notes. Each midterm will contain an example from a class and a problem from the homework. If you miss a midterm for any reason, that midterm will not contribute to your final score and the weight of your final exam will be increased by the amount of that midterm. No make-up or early midterm exams will be given. If you want to request a regrade for a midterm (or any portion thereof), you must make this request by the end of the class period in which that midterm was handed back.

Final Exam Policies: Electronic devices and collaboration are both strictly prohibited on the final exam. The final is closed book and closed notes. The final will contain an example from class and a problem from the homework. If you need to miss the final exam because of an emergency of the direst sort (death in the family, severe illness, etc.), inform the instructor before the final. If your reason is deemed sufficiently dire, you will get an incomplete in the course and will have to take the final exam the following quarter (Winter 2013). *If you do not take the final exam on 12/12/2012 at 8:00-10:59 am for any other reason, you will get an F in the course.*