MATH 104B SYLLABUS
WINTER 2018

Lectures	TH 11:00-12:20pm, APM 5402.
Instructor	James McKernan, APM 6260, phone (858)-534-6347.
Office Hours	H 9:00-11:00am

or by appointment, if you cannot make these times.

Teaching Assistant	Justin Lacini, jlacini@ucsd.edu.
Section	W 5:00-5:50PM, APM 2402.
Office Hours	H 3:00-5:00pm, APM 6422.
Text	*Fundamentals of Number Theory*, W. J. Leveque

See web site for some other suggestions.

Exams, Final	Thursday March 22nd, 11:30-2:30pm, APM 5402.
Midterms	Thursday February 1st, Thursday March 1st.
Grading	Homework 30%, Midterms 30%, Final 40%.
Syllabus	Elementary number theory with applications.

Topics in number theory such as finite fields, continued fractions, Diophantine equations, character sums, zeta and theta functions, prime number theorem, algebraic integers, quadratic and cyclotomic fields, prime ideal theory, class number, quadratic forms, units, Diophantine approximation, p-adic numbers, elliptic curves.

Prerequisites	Math 104A, or consent of instructor.
Homework	Homework will be assigned on the website every Monday.

It will be due one week later every Friday at 12pm, in a dropbox in the basement of APM. Late problem sets are **not accepted**, however the lowest problem set score will be dropped.

At the top of every of each assignment should appear

(1) Your name.
(2) Your section leader's last name.
(3) Your section time.
(4) Either the text "Sources consulted: none" or a list of all sources consulted other than the main textbook, supplementary notes, and your own notes from lecture and section. This is *required*. (Examples of things that should be listed if used: office hours, names of study group partners, Wikipedia, etc.)

You should not expect to be able to solve every single problem on your own; instead you are encouraged to discuss questions with each other or to come to office hours. If you meet with a study group, you may find it helpful to do as many problems as you can on your own

beforehand. But write-ups must be done independently. (In practice, this means that it is OK for other people to explain their solutions to you, but you must not be looking at other peoples solutions as you write your own.) Use examples in the book as a model for the level of detail expected. Write in complete sentences whenever reasonable. If you have questions about the homework, it is best to ask these in office hours.