

**MATH 100B SYLLABUS
WINTER 2023**

Lectures TH 12:30-1:50, WLH 2111
Instructor James M^cKernan, APM 6260, phone (858)-534-6347
Office Hours T 2:30-4:30PM
or by appointment, if you cannot make these times.
Teaching Assistant Felipe Castellano-Macias, fcastellanomacias@ucsd.edu
Sections W 5:00-5:50pm, APM 5402
Office Hours T 6:30-7:30pm, W 3:50-4:50pm, HSS 5012
Teaching Assistant Jacob Keller, jjkeller@ucsd.edu
Sections W 6:00-6:50pm, APM 5402
Office Hours W 11:00-1:00pm, HSS 4008
Text *Abstract Algebra*, I. N. Herstein

See web site for some other suggestions.

Exams, Final Tuesday March 19th, 11:30-2:30pm, WLH 2111.
Midterms Thursday February 1st, Thursday February 29th.
Grading Homework 30%, Midterms 30%, Final 40%.

Syllabus Second course in a rigorous three-quarter introduction to the methods and basic structures of higher algebra. Topics include: rings (especially polynomial rings) and ideals, unique factorization, fields; linear algebra from the perspective of linear transformations on vector spaces, including inner product spaces, determinants, diagonalization. (Students may not receive credit for both Math 100B and Math 103B.)

Prerequisites Math 100A or consent of instructor.

Academic Honesty Academic dishonesty is considered a serious offense at UCSD. Students caught cheating will face an administrative sanction which may include suspension or expulsion from the University. It is in your best interest to maintain your academic integrity.

Homework Homework will be assigned on the website every Monday.

It will be due one week later every Thursday at 12pm, via Gradescope. 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, ChatGPT 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 people’s 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.