

## MATH 55 SUMMER 2017

### 1. COURSE INFO

- Instructor: Shiyu Li ([shiyu@math.berkeley.edu](mailto:shiyu@math.berkeley.edu))
- Time: MTWThF, 12-2 PM, Etcheverry 3107
- Course webpage: [www.math.berkeley.edu/~shiyu](http://www.math.berkeley.edu/~shiyu)
- Office hours: MWF 11-12 PM, and by appointment.
- Office: 1044 Evans
- Textbook: Discrete Mathematics and Its Applications, 7th Edition. We will be covering Chapter 1-10 of this textbook.

### 2. GRADING POLICIES

The five components of your grade are as follows:

- (1) Final Exam - 30%. Held on the penultimate day of class, Thursday August 10th. The final exam will be cumulative, with an emphasis on the final two weeks' material. You must take the final exam to pass the class.
- (2) Midterms (2) - 20% each, held on Thursday, July 6th and Tuesday, July 25th. You may drop up to one midterm grade and replace it with your score on the final.
- (3) Quizzes - 15%. There will be a quiz approximately every week. No makeup quizzes will be offered, but I will drop your lowest quiz score.
- (4) Homework - 15%. Homework will be posted on the website and is due every Friday and Tuesday; selected problems from the homework will be graded, at the discretion of the grader. Late homework will not be accepted. You will be expected to write up your homework problems clearly and carefully, as if they were on a quiz or exam.

### 3. OUTLINE OF SCHEDULE

- Week 1: Introduction to Logic and Proofs (Ch 1)
- Week 2: Sets, Functions, and Cardinality (Ch 2)
- Week 3: Intro to Number Theory (Ch 4), Midterm I
- Week 4: Induction (Ch 5)
- Week 5: Intro to Combinatorics (Ch 6)
- Week 6: Probability Theory (Ch 7), Midterm II
- Week 7: Recurrences and Generating Functions (Ch 8)
- Week 8: Graph Theory (Ch 10), Final Review