Math 110 Syllabus Summer 2018 Instructor: Kevin Donoghue donoghue@berkeley.edu

Overview. Math 110 is a second course in linear algebra. The material significantly overlaps 54 but, unlike 54, does not include differential equations. Math 110 differs from Math 54 in two ways: 1) it concerns itself with arbitrary vector spaces, not just \mathbb{R}^n and 2) it approaches linear algebra from a proofbased perspective.

Prerequisites. You should be comfortable with matrix manipulations and basic integral and differential calculus. Math 54 is the official prerequisite.

Course Hours. This course meets MTWTh (not Friday) from 10-12. The first hour is lecture, the second a problem session. There is no class on July 4.

Office Hours. I will hold office hours immediately after class, 12:00-1:00 MTWTh, in 747 Evans. I may cancel some of the Thursday office hours.

Homework. Homework will be assigned each week and will be due at the start of class (10:10) on Tuesdays. There will be seven homeworks total.

Midterms and Final. There will be two 1-hour in-class midterms on July 10 and July 26. There will be a 2-hour in-class final on August 9, the last day of class.

Grading. Your raw score will be calculated according to the following formula:

Homework	10%
Midterm 1	25%
Midterm 2	25%
Final	40%

Textbook and References. The textbook to the course is Sheldon Axler's *Linear Algebra Done Right* (3rd edition). I do not recommend that you purchase the textbook as a pdf can be freely downloaded if you are on a Berkeley computer (for example, at the library). Simply search for the textbook on **oskicat.berkeley.edu** and there should be a link to a digital copy from Springer.