

LINEAR ALGEBRA II
MATH 132 - WINTER 2015
MWF 2:10–3, MSE 103

- Instructor: Carl Mautner
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- Office: Surge 255
- Office hours: M 12-1, W 10-12 or by appointment
- Class website: <http://www.math.ucr.edu/~mautner/W15> (and if that doesn't work: <http://people.mpim-bonn.mpg.de/cmautner/W15>)
- Teaching Assistant: Josh Strong

Course objectives: In this course we will continue from where you left off in Linear Algebra I, by learning more refined properties of linear maps. We will start by studying linear operators (i.e., linear maps $A : V \rightarrow V$ from a vector space to itself) and introduce the notions of eigenvalues, minimal polynomials and canonical forms. Then we will study the linear maps and operators for vector spaces endowed with extra structure, like the dot product structure on \mathbb{R}^n .

Text: Peter Petersen, *Linear Algebra*.

Grading: The grade will be based on homework assignments (25%), one in-class exam (30%) tentatively set for Friday, February 6, and a final exam (45%) on March 17, 7-10 pm. Final letter grade cut-offs will be made at the end of the semester and will be no worse the standard scale (e.g., if you get above 90% you are guaranteed an A or A-).

Any instance of cheating will result in a failing grade for the course.

Homework: Homework will generally be assigned each class meeting and due a week later at the beginning of class. A list of the homework problems will be kept on the webpage. Late homework will not be accepted, but the lowest two homework grades will be dropped.

Collaboration: You are encouraged to discuss homework problems with other students. The final write-up of any solution, however, must be your own. Copying other students' solutions is cheating and treated as such.

Date: January 5, 2015.