

**Course Information**  
**Math 550, Linear Algebra and Applications**  
**Fall Semester, 2016**

**Web page**

<http://www.rci.rutgers.edu/~yzhuang/math/550-f-16.html>

See this page for all the information about this course.

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**Office Hours** Monday and Wednesday, 1:40 to 3:00 pm and by appointment

**Class Periods and Location** Monday and Wednesday, 3:20 to 4:40 pm, SEC-202.

**Examination Dates**

Midterm Examination Monday, October 24, 2016, 3:20–4:40 pm, SEC-202

Final Examination December 23, 2016, 12:00–3:00 pm.

**Text** Gilbert Strang, Linear Algebra and its Applications, Fourth Edition ISBN 0-03-010567-6, Thomson – Brooks/Cole, 2006.

**Grading Policy** The various components of the course are weighted as follows in the determination of your course grade:

Midterm exam:	20 %
MATLAB assignments	30%
Graded homework	10%
Final exam:	40%

**Computer Component of Course** In this course students will do several MATLAB assignments and create printed writeups of your MATLAB sessions to hand in for grading. These assignments have a double purpose:

- To help you learn the concepts and algorithms of linear algebra by using them in an interactive computer environment.
- To introduce you to state-of-the-art computational tools for important applications of linear algebra, such as the Fast Fourier Transform, Least Squares Data Fitting, and Digital Image Compression.

**MATLAB** The MATLAB software package is installed on the ra computer in the math department network and is accessible via ssh from the math department terminal rooms in Hill Center. Any student in the course wanting to run MATLAB on the math department system can obtain a class account (math graduate students already have such accounts). For students in the School of Engineering there are several computer networks on which MATLAB is installed. It is also

available in the Student PC Labs in the ARC Building on Busch Campus (and at the Student PC labs on the Livingston, College Avenue, and Douglass campuses). You can purchase the Student edition of MATLAB for PC's, Linux or Macintosh from the web site of Mathworks. It includes documentation and tutorials. Links to MATLAB-related web sites can be found on the course web page.

**Exams, Homework, and Grades** There is one midterm exam (80 minutes) and a final exam (3 hours). Both exams are closed book. There are five MATLAB assignments. Writeups of selected homework problems are due each week; you should also work through the recommended additional homework problems (not graded) listed on the homework page. Please ask about homework problems (before or after the lectures, at office hours, or by e-mail). Homework assignments for a week are due the Monday next week. No late homework is accepted.

Important: The exams will contain problems that test your understanding of the concepts of linear algebra, in addition to straightforward computational problems. All exams are closed book, with no calculators or formula sheets allowed.

**Academic Integrity** All Rutgers students are expected to be familiar with and abide by the academic integrity policy (<http://academicintegrity.rutgers.edu/academic-integrity-policy>). Violations of the policy are taken very seriously.