

# MAT 310: Linear Algebra      Spring 2005

**About this course:** This is a second course in linear algebra. It is more theoretical and rigorous than MAT 211, and also covers additional material needed in various areas of mathematics and its applications. A significant emphasis is placed on proofs. *Necessary* prerequisites include MAT 200 and previous experience with linear algebra (ie, MAT 211, AMS 210, or the equivalent).

**Where and When:** Lecture: Monday, Wednesday, and Friday, 9:35-10:30 in Physics 112.  
Recitation 1: Monday at 3:50 in Union 225,      Rec. 2: Tuesday at 11:20 in Harriman 111.

**Text:** *Linear Algebra, 2<sup>nd</sup> edition*, by Kenneth Hoffman and Ray Kunze. This runs about \$110 at the bookstore, but used copies can be found for about \$25 online. Another useful reference is *Linear Algebra Done Right* by Sheldon Axler. This costs about \$35 for paperback. Copies of each are on reserve in the Math-Physics library.

**Examinations and grading:** There will be weekly homeworks, two midterm examinations, and a comprehensive final examination. In addition, there will be a project to complete (you choose from one of several topics). Each of these five items is worth 25% of your grade. I do realize that adds up to 125%, but arithmetic is not my strong suit. Well, OK, you get to drop one of the grades.

Mathematics is not a spectator sport; you must work problems in order to fully understand<sup>1</sup> the material. While you might think you can drop the homework score, if you don't do the problems, there is a high probability that the scores on the midterms and the final will be dismally low as well. So do the homework problems.

The final exam will be on Friday, May 13 and the horribly early hour of 8am.

**Webpage:**      <http://www.math.sunysb.edu/~scott/mat310.spr05/>

**Homework and Schedule:** The list of homework assignments and the most current schedule of topics can be found on the class web page. It will change, so check it regularly.

Homeworks will be collected in recitation. While you may work together with others in the class (which can be a rewarding experience), write up your own solutions in your own words. Since homework earns credit, it is assumed that everyone submitting particular problems can solve them individually. The goal of the homework is to understand the material, not to merely hand in some paper.

**Instructor:** Prof. S. Sutherland                      632-7306                      [scott@math.sunysb.edu](mailto:scott@math.sunysb.edu)  
Office hours: Wed 11-1 in Math P-143, Thurs 11:30-12:30 in Math 5D-148, and by appointment. Note that I can often be found around the department most days. Send me an email or phone first if you want to be sure I'm around, or just come by and take your chances. I'm around a lot, but often you'll have to wait a bit.

**Teaching Assistant:** Luis Lopez      [llopez@math.sunysb.edu](mailto:llopez@math.sunysb.edu)  
Office hours: Mondays, 5-7pm in Math 2-122 and 7-9pm in the Math Learning Center (Math S-240A).

**Disabilities:** If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Students requiring emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information, go to the following web site:

<http://stonybrook.edu/ehs/fire/disabilities.asp>

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<sup>1</sup>"One learns by doing a thing; for though you think you know it, you have no certainty until you try."  
(Sophocles)