

## Syllabus for MATH 201 (Introduction to Linear Algebra)

Fall 2005 – Prof. Geuzaine

Updated Sep 21, 2005

*The information found here is subject to change; updates, homework assignments, handouts, announcements, etc., will be posted online at the following web site: <http://www.case.edu/artsci/math/geuzaine/201/>*

**Description:** MATH 201 is an introduction to linear algebra, including matrix operations, systems of linear equations, vector spaces, subspaces, bases and linear independence, eigenvalues and eigenvectors, diagonalization of matrices, linear transformations, determinants. Less theoretical than MATH 307. May not be taken for credit by mathematics majors. Only one of MATH 201 or MATH 307 may be taken for credit.

**Prerequisites:** MATH 122 or MATH 126.

**Textbook:** *Introduction to Linear Algebra*, Third Edition, by Gilbert Strang (Wellesley-Cambridge Press, 2003). We will cover most of the first six chapters, with additional topics from later chapters if time permits.

**Grading:** There will be three midterm exams and a final exam. Each midterm will determine 15% of your grade, and the final will determine 40%. The remaining 15% of your grade will be based on homework assignments, quizzes, etc.

**Homework:** Homework will be assigned and collected at the end of each lecture. It is important that you keep up with the work: do the homework as it is assigned, and ask questions right away if you find there is something you don't understand. The easiest way to do poorly in this class is to get behind on the homework assignments. Solutions will be posted; as a consequence, homework that is turned in late will not be graded. Each homework paper is graded on a 2 point scale: 2 means everything is right (not just the final answer!), 0 means everything is wrong.

**Midterm grades:** Midterm grades will be assigned. These are not a prediction of a likely final grade. They are solely based on the work that has been completed at the time that they must be submitted; which usually includes no more than one third of the total work for the course. Their purpose is mainly to warn students who may not be doing as well in the course as they think.

**Final exam:** The final exam will be on Mon Dec 19, 8:30am-11:30am, in *TBA*.

**Contact information:**

- Email: cag32
- Phone: (216) 368-2909. (Generally, email is a better way to reach me than phone.)
- Office hours: My office is Yost 213; my office hours for the Fall 2005 semester are:
  - Mon: 11:00am-12:30pm
  - Wed: 1:30pm-3:00pm
  - Fri: 11:00am-12:30pm

If you want to see me, don't feel that you have to wait for an office hour. Make an appointment or just drop by. I would like especially to meet with students with disabilities who are registered with the Coordinator of Disability Services and who may need individual arrangements.

**Schedule:** Mon/Wed/Fri: 9:30am-10:20am, Sears 548. An approximate calendar for the course follows. Updates will be posted on the web site.

Mon Aug 29	<b>First class</b>	Mon Oct 24	<b>No class: Fall break</b>
Wed Aug 31	ch 2	Wed Oct 26	ch 6
Fri Sep 02	ch 2	Fri Oct 28	review
Mon Sep 05	<b>No class: Labor Day</b>	Mon Oct 31	<b>Test 2</b>
Wed Sep 07	ch 2	Wed Nov 02	ch 6
Fri Sep 09	ch 2	Fri Nov 04	ch 6
Mon Sep 12	ch 2	Mon Nov 07	ch 6
Wed Sep 14	ch 3	Wed Nov 09	ch 6
Fri Sep 16	ch 3	Fri Nov 11	ch 6
Mon Sep 19	ch 3	Mon Nov 14	ch 6
Wed Sep 21	ch 3	Wed Nov 16	ch 6
Fri Sep 23	ch 3	Fri Nov 18	ch 6
Mon Sep 26	review	Mon Nov 21	review
Wed Sep 28	<b>Test 1</b>	Wed Nov 23	<b>Test 3</b>
Fri Sep 30	ch 3	Fri Nov 25	<b>No class: Thanksgiv.</b>
Mon Oct 03	ch 4	Mon Nov 28	ch 7
Wed Oct 05	ch 4	Wed Nov 30	ch 7
Fri Oct 07	ch 4	Fri Dec 02	ch 7
Mon Oct 10	ch 4	Mon Dec 05	TBA
Wed Oct 12	ch 4	Wed Dec 07	TBA
Fri Oct 14	ch 5	Fri Dec 09	<b>Last class</b>
Mon Oct 17	ch 5	Mon Dec 19	<b>Final exam</b>
Wed Oct 19	ch 5		
Fri Oct 21	ch 6		