

Syllabus M303 Linear Algebra Spring 2006, C. Judge

Course Information

- **Text:** *Linear Algebra and its Applications*, 3rd Ed. by David Lay
- **Sections**
 - 9:05-09:55 am, MWF, Woodburn 119
 - 1:00-2:15 pm, TR, Swain Hall East 245
- **Office Hours:** (subject to change)
 - Monday 10:00-11:00
 - Wednesday 1:30-2:30
 - by appointment

Instructor Information

- **Instructor:** Professor Chris Judge
- **Office:** Rawles 241
- **Phone:** 855-2353
- **E-mail:** cjudge@indiana.edu
- **Web page:** <http://poincare.math.indiana.edu/~cjudge>

Topics

- Systems of linear equations and matrices
- Vector spaces, linear independence, bases, and dimension
- Linear transformations, matrix representations, and change of bases
- Column and null space
- Determinants and volume
- Orthogonality
- Eigenvectors, eigenvalues, diagonalization
- Optimization and singular value decomposition

Grading

- 2 midterm exams each worth 20% of total grade (40% in total).
- Final exam worth 30%
- Approximately 12 homeworks (drop two lowest scores) worth 15%
- Approximately 12 quizzes (drop two lowest scores) worth 15%
- Final grade will be based on 60,70,80,90 scale.

Some rules

- If you miss an exam, you (or a surrogate) must notify me as soon as possible. You will not be excused unless you document extraordinary circumstances that prevented you from attending.
- No quiz will be made up (since 2 will be dropped).
- Homework is due in class on the day that it is assigned. Late homework will not be accepted (as two will be dropped).

Tentative and Approximate Schedule¹

<u>Week</u>	<u>Sections and/or exam</u>
Jan 9-13	1.1, 1.2, 1.3
Jan 17-20 (MLK=16)	1.4, 1.5, 1.7
Jan 23-27	1.8, 1.9, 1.10
Jan 30-Feb 3	2.1, 2.2, 2.3
Feb 6-10	2.4, Review, Exam 1
Feb 13-17	3.1, 3.2, 3.3,
Feb 20-24	4.1, 4.2, 4.3
Feb 27-Mar 3	4.4, 4.5, 4.6
Mar 6-10	4.7, 4.9, 5.1
Mar 13-17	Spring Break
Mar 20-24	5.2, 5.3, Review
Mar 27-31	Exam 2 , 5.4, 5.5
Apr 3-7	5.6, 6.1, 6.2
Apr 10-14	6.3, 6.4, 6.5
Apr 17-21	7.1, 7.2, 7.3
Apr 24-28	Review

Final Exam (Time depends on the section in which you are enrolled!)

- Monday, May 1, 8:00-10:00 AM for 9:05-10:05 am MWF class
- Thursday, May 4, 5:00-7:00 PM for 1:25-2:25 pm TR class

¹Any adjustment to the date or content of an exam will be announced in class and/or by e-mail. You are responsible for keeping track of any adjustment.