

# Math 307      Theory of Matrices      Fall 2005

**Text:** David C. Lay, Linear Algebra and its Applications, 3rd Ed., Addison-Wesley.

**Instructor:** R.J.Gregorac (Office: Carver 486, Phone: 294-8167)  
Office Hours: M,W 3-5pm,F11-12am (Others by appointment)  
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**Course content:** Topics include vectors & matrices, systems of linear equations, determinants, eigenvalues/eigenvectors, vector spaces, linear transformations, orthogonality and inner product spaces. Most of Chapters 1–6 of the text will be covered.

## Tentative Course Schedule and Homework Problems

Date	Section	Homework problems
8/22	1.1	7,12,15,16,25,33
8/24	1.2	2,10,13,17,24,29,33
8/26	1.3	4,6,10,22,26,33
8/29	1.4	7,8,9,10,12,14,18,36
8/31	1.5	quiz,11,12,15,16,24,28
9/2	1.6	4,8,12
9/5	Labor Day holiday	
9/7	1.7	2,8,14,30,36
9/9	1.8	quiz,2,4,8,16,32
9/12	1.9	6,16,18,25,28
9/14	2.1	4,6,10,16,23,27,28
9/16	<b>Exam 1</b>	
9/19	2.2	2,4,7,32,33
9/21	2.3	2,4,5,6,7
9/23	2.4	quiz, 2,25
9/26	2.5	2,6,10
9/28	3.1	quiz,2,4,6,10,16
9/30	3.2	2,4,6,8,10,26,40
10/3	3.3	4,6,14,20,24,31
10/5	4.1	2,6,8,22
10/7	4.2	quiz,2,4,8,16,32

Date	Section	Homework Problems
10/10	4.2	
10/12	review	
10/14	<b>Exam 2</b>	
10/17	4.3	2,4,6,8
10/19	4.4	2,4,6,8,14,28
10/21	4.5	2,4,6,8,12,14
10/24	4.6	2,4,6,8,31,32
10/26	4.6,4.7	quiz,2,4,6,8
10/28	4.7	2,4,6,8
10/31	5.1	2,4,8,16,20
11/2	5.2	quiz,2,6,10,14,16
11/4	5.3	2,4,6,8,14,20
11/7	5.4	2,4,8,12,16
11/9		review of complex arithmetic
11/11	<b>Exam 3</b>	
11/14	5.5	4,6,16
11/16	6.1	2,6,8,16,18,24
11/18	6.1,6.2	quiz,2,6,8,10,15
11/28	6.2,6.3	4,6,8,12,16
11/30	6.3,6.4	4,8,12
12/2	6.4	quiz
12/5	6.5	2,6,25
12/7	6.5	
12/9	review	

**Grading policy:** Final course grade will be based on the performance on exams, quizzes and any graded homework. I expect

three hourly examinations (100 points each)

final examination (125 points) and

homework and/or quizzes(100-120 points)

The following grading scale will be used:

D-/D+: 49-59%, C-/C+: 60 - 71%, B-/B+: 72 - 84%, A-/A: 85 - 100 %.

**About exams:** The hourly in-class exams will be given: Exam 1: September 16

Exam 2: October 14

Exam 3: November 11.

Students missing an exam with an approved excuse will have the results from their comprehensive final weighted more heavily. No make-up exams will be given. No make up quizzes will be given.

**Homework:** Homework practice problems are listed on the syllabus and, time permitting, can be discussed in class.

**About homework problems:** These problems will be your measure of how well you mastered the lecture and how up-to-date you are in the course. Always read the section of the text on which problems are assigned unless noted otherwise. You are encouraged to study together and to ask questions about the homework that is not to be graded at the beginning of each lecture.

**Disability policy:** Please address any special needs or special accommodations with me at

the beginning of the semester or as soon as you become aware of your needs. (No accommodations will be made retroactively.) Those seeking accommodations based on disabilities should obtain a Student Academic Accommodation Request (SAAR) form from the Disability Resources (DR) office (515-294-6624). DR is located on the main floor of the Student Services Building, Room 1076.

**Together let's have an interesting semester!**