

**MATH 222-502: LINEAR ALGEBRA I — SPRING 2008**

**Dr. R. A. Gustafson**

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**Office Hours:** MWF 12:00 – 1:00 pm and by appointment.

**Home Page:** <http://www.math.tamu.edu/~robert.gustafson>

**Times/Room:** MWF 10:20–11:10 AM / HELD 122

**Text:** S.J. Leon, *Linear Algebra with Applications*, 7th Ed. (Prentice-Hall)

**Course Content:** This is an introductory course in linear algebra covering abstract concepts of vector spaces and linear transformations as well as their applications to systems of linear equations, matrices, and determinants. (*Approximately* chapters 1–6 in the book.)

**Grading Policy:**

300 pts. = 3 Major Exams @ 100 points

100 pts. = Daily Grade (including homework and quizzes)

100 pts. = Comprehensive Final Exam (8 AM, May 6)

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500 pts. = Total

**A** = 450–500 pts.

**B** = 400–449 pts.

**C** = 350–399 pts.

**D** = 300–349 pts.

**F** = below 300 pts

**Syllabus:** (week by week)

1. 1.1 - 1.2

2. 1.3 - 1.4

3. 2.1 - 2.2

4. 3.1 - 3.2

5. review, exam 1, 3.3

6. 3.3 - 3.4

7. 3.5 - 3.6

8. 4.1 - 4.2

9. Spring Break (March 10-14)

10. review, exam 2

11. 4.3, 5.1

12. 5.2 - 5.3

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| 13. 6.1 - 6.2   | 15. 6.3    |
| 14. 6.2, exam 3 | 16. review |

### Homework

- Due Fri. 1/18** Read Leon 1.1-1.2.  
Problems 1.1 (pp. 11-13): 2bc, 3bcd, 4bcd, 7, 8, 9
- Due Fri. 1/25** Read Leon 1.3-1.4  
Problems 1.2 (pp. 25-30): 1, 2bce, 3cd, 5efi, 6d, 7, 10, 11  
1.3 (pp. 57-61): 1cgh, 2bd, 4b, 9, 12, 13, 15, 19, 21
- Due. Fri. 2/01** Read Leon 2.1-2.2  
Problems 1.4 (pp. 69-72): 3c, 5, 6, 9, 10cf, 16, 17, 22-24  
2.1 (pp. 96-98): 2, 3eg, 4bd, 5, 9-11
- Due Fri. 2/08** Read Leon 3.1-3.2  
Problems 2.2 (pp. 103-106): 3bcf, 4-11, 14  
3.1 (pp. 121-123): 1, 6, 7, 9, 11, 12, 14, 16
- Due Mon. 2/11** Read Leon 3.3  
Problems 3.2 (pp. 131-134): 2abd, 3, 4cd, 5, 9abd, 11-13, 14ac, 16, 18-20
- Due Fri. 2/22** Read Leon 3.3-3.4  
Problems 3.3 (pp. 144-145): 2abd, 3abd, 5, 6ac, 7abc, 10, 12-14, 16, 17
- Due Fri. 2/29** Read Leon 3.5-3.6  
Problems 3.4 (pp. 154-156): 2abd, 5, 6ac, 7, 10, 12, 13, 14ab, 15-17  
3.5 (pp. 161-162): 1, 2, 5-9
- Due Fri. 3/07** Read Leon 4.1-4.2  
Problems 3.6 (pp. 167-170): 1b. 2c. 3, 7a, 8-11, 16, 17, 27  
Problems 4.1 (pp.182-184): 1, 4, 6, 7, 10, 11, 13, 16, 17bc, 19ac, 20, 21
- Due Mon. 3/17** Problems 4.2 (pp. 196-199) 2bc, 3bc, 5ac, 6-8, 13, 14, 16, 18
- Due Fri. 3/28** Read Leon 4.3, 5.1  
Problems 4.3 (pp.204-206): 2-7, 11, 14

11. **Due Fri. 4/4** Read Leon 5.2-5.3  
 Problems 5.1 (pp. 223-225): 2, 3bd, 4, 6-8, 12  
 5.2 (pp. 233-234): 1bc, 2, 3, 5, 7-9, 12
12. **Due Fri. 4/11** Read Leon 6.1-6.2  
 Problems 5.3 (pp. 243-244): 3-6, 9, 12  
 6.1 (pp. 310-313): 1begjl, 2-4, 6, 8, 11, 15
13. **Due Wed. 4/16** Problems 6.2 (pp. 323-325): 1bdf, 2ac, 5ab, 6
14. **Due Fri. 4/25** Read Leon 6.3  
 Problems 6.3 (pp. 340-344): 1bde, 2bde, 3bde, 4a, 7, 9-11, 17
15. **Mon. 4/28** — **not to turn in** Problems 6.3 (pp 351-355): 26ac, 27a, 28ac, 29-31

## Policies

**Daily grades:** Each class day there will be assignments done in class, those to be turned (i.e. homework), and/ or quizzes. The total number of points should total more than 100 points. The lowest two grades will be dropped and the remaining grades will be scaled to 100 points You are responsible for turning in assignments on the day they are due even in the event of excused absences.

**Exam Make-Up:** I will give exam makeups (or satisfactory equivalent) only in cases authorized under *TAMU Regulations*. You **must** notify me of your absence and excuse by the end of the next working day after which work was missed so a makeup can be scheduled. This can be done by either e-mail or phone message. An excuse must be presented upon return to class.

**Grade Disputes:** Once you leave class with a graded exam or assignment then you accept its grade. All disputes must be turned in as an attached note to your work when you receive back the work.

**Attendance:** Attendance is required (except for University authorized excuses) and attendance role will be taken.

**Plagiarism:** The handouts used in this course are copyrighted. By *handouts*, I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, web pages,

in-class materials, reviews sheets and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. (For more information see *TAMU Regulations*). Under certain circumstances, I will give permission for collaborative work, and you will have to indicate your collaboration on your work.

In this class, scholastic dishonesty will not be tolerated under *any* circumstances.

**Honor Code:** “An Aggie does not lie, cheat, or steal or tolerate those who do.” The Honor Council Rules and Procedures are found on the web (<http://www.tamu.edu/aggiehonor>)

**Disabilities:** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.