

# MATHEMATICS 111

## LINEAR ALGEBRA II

Dan Bergerud - Ewing 264  
370-3495

Winter

### TEXT:

Anton and Rorres, *Elementary Linear Algebra*,  
8th edition, Wiley 2000.

### OUTLINE:

|                                 | Sections       |
|---------------------------------|----------------|
| v Euclidean Vector Spaces.      | 4.1 - 4.3      |
| v Inner Product Spaces.         | 6.1 - 6.5      |
| v Eigenvalues and Eigenvectors. | 7.1 - 7.3      |
| v Linear Transformations.       | 8.1 - 8.5      |
| v Additional Topics.            | 9.2, 9.5 - 9.7 |

EVALUATION: The final grades in the course will be determined from marks on weekly assignments, 2 class quizzes, and a final exam.

|             |       |
|-------------|-------|
| Assignments | 20%   |
| Quizzes     | 30%   |
| Final Exam  | 50% * |

\*The final can be counted as 100% if the final mark exceeds the term mark.  
This, however, is only an option if all of the term work has been satisfactorily completed.

|              |          |          |          |           |           |          |           |           |          |           |
|--------------|----------|----------|----------|-----------|-----------|----------|-----------|-----------|----------|-----------|
| Grade scale: | <i>F</i> | <i>D</i> | <i>C</i> | <i>C+</i> | <i>B-</i> | <i>B</i> | <i>B+</i> | <i>A-</i> | <i>A</i> | <i>A+</i> |
|              | [0, 50)  | [50, 60) | [60, 65) | [65, 70)  | [70, 75)  | [75, 80) | [80, 85)  | [85, 90)  | [90, 95) | [95, 100] |

- v Assignment sheets will be handed out weekly. Each assignment will be due one week after the sheet is handed out. Assignments which are one day late will be loose one mark. Assignments later than one day will be recorded as handed in but will not be marked.
- v The quizzes will be 50 minute tests which count for 15% each.
- v The final will be a comprehensive, 3 hour exam.

STUDY: Mathematics is a subject which is learned only by doing. One must spend as much time doing the math as is required to become accustomed to the notation and to perfect the techniques. (One or two hours for each hour of class!) It is essential to attend classes and not to fall behind. Take pride in carefully completing assignments.

STUDY HELP: Out of class help may be obtained in my office hours or from the MATH ASSISTANCE CENTRE in Ewing 224. (Operating hours are posted on the door.)