

GRANDE PRAIRIE REGIONAL COLLEGE  
DEPARTMENT OF SCIENCE  
COURSE OUTLINE

MATHEMATICS 1200 A2  
FALL SEMESTER 1993

**TITLE:** LINEAR ALGEBRA I

**SCHEDULE:** Tues., Thur. 1:30 - 3:00 J101

**INSTRUCTOR:** Dr. Eric Chislett  
Room C 409  
Phone 539 2003

**TEXT:** ELEMENTARY LINEAR ALGEBRA, Applications version  
sixth edition, by Anton and Rorres.

**MARKING:**

Final Exam	39%
Term Exam 1	15%
Term Exam 2	15%
Quizzes	21%
Assignments	10%

**Note:** Assignments must be legible using proper notation. No late assignments accepted.

**COURSE TOPICS:** Matrix Algebra  
Systems of Linear Equations  
Gauss-Jordan Elimination and Reduction  
Row Echelon Form  
Determinants  
Cramer's Rule  
Selected Applications  
Geometry of Vectors in  $\mathbb{R}^n$   
Vector Spaces and Subspaces  
Linear Combinations, Span & Linear Independence  
Basis and Dimension  
Eigenvalues and Eigenvectors

## MATHEMATICS 1200

### SCHEDULE OF EXAMINATIONS:

Term test 1 : Thursday, October 21, 1993  
(Tentative)

Term test 2 : Thursday, November 25, 1993  
(Tentative)

Final Examination : Will be scheduled by Registrar's Office in December 1993.

**Quizzes, term tests and the final examination must be written at scheduled times.**

**Quizzes:** Generally, quizzes will be administered on Thursdays. This schedule has to be changed sometimes depending on progress of the class. The instructor will let the class know of any such change at the appropriate time.

**Assignments:** There will be 3 to 5 assignments. Assignment Problem Sets will be made available to students at appropriate times. Assignments should be legible and neatly done. Assignments must be submitted on time. Late assignments will not be accepted.

**Homework:** From time to time some home-work will be suggested from the text-book as different topics are covered. This home-work is for practice only and need not be handed in.

**Attendance:** If a student misses a particular class it is their responsibility to know the material covered and announcements made.

**Lateness:** In order to avoid disruption, students are requested not to be late for classes.

**Calculators:** Calculators are not allowed in quizzes, term tests and examinations.

**Food and drink:** LARGE meals are not allowed during the class time. A sandwich for survival will not be frowned at.

**Notes:** Take appropriate notes in the class placing a special mark or a symbol by the side of a concept or a problem that is important or difficult to understand or remember. It helps students immensely to go over the day's notes at home, preferably the same day when the matter is fresh in their mind. Going over the notes passively like a novel does not do much good for the learning process. Actually work out some or all of the problems completed during the class and then attempt other home-work questions.

If you miss a class, it is important that you keep track of material covered in the class. One way to do this is to get class-notes from a peer who takes notes with care. Write the notes rather than xerox them. Kinesthetics of writing helps comprehension and retention. Xeroxing of notes should be resorted to only when one has run into time-management problems due to circumstances beyond one's control.

**Time management:** It is a good idea to apportion time for your courses in your study schedule. Definitely reserve some time for fun and recreational activities. You need some relaxation for effective studying. After making a good study schedule, one must follow it. If a time-management problem develops during the term, re-arrange the available time wisely and then once again follow the revised plan knowing that this is the best one can do to get out of trouble. If one makes a reasonable and workable time schedule and follows it, then there will most likely be no occasion to re-arrange time in panic. Using a planning diary for daily activities also helps.

**Quizzes and Exam Preparation:** Remember that Mathematics is a sequential subject. Weakness in earlier chapters is definitely hinders comprehension and mastery of later material. One cannot accumulate Mathematics work and expect to do well by putting in a lot of concentrated effort just before exam. Mathematics has to be learnt in sequence and has to be mastered in sequence while proceeding at a reasonable pace.

It is beneficial to go over class notes the day (night) before the quiz day. Special notations placed at important and difficult details in your notes will facilitate preparation for quizzes and exams. The review of notes, assignments and home-work should also involve selected problem solving.

**Finally:** Everything is learnt by doing and Mathematics is no exception to this rule. "Just do it" would be a good way to learn anything and definitely Mathematics.

**Good luck.**