

GRANDE PRAIRIE REGIONAL COLLEGE

Department of Science and Technology

MATH 1020

Winter 1998

Title: Applied Linear Algebra

Prerequisite: MA 1000

Schedule: Lecture A3 T Th 11:00-12:20 J229
Seminar AS1 Th 16:00-16:50 A307
Seminar AS2

Instructor: Dallas Sawtell
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Phone 539-2989
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Textbooks: Edward and Penney, Elementary Linear Algebra
James Stewart, Calculus (3rd Edition)

Grading: Assignments 10%
Worksheets/Quizzes 10%
Midterm(s) 30%
Final Exam 50%

Seminars: Worksheets and quizzes

Assignments: There will be approximately 4 assignments. Assignments must be legible and answers must be presented in proper notation. No late assignments will be accepted.

Midterm: There will be 1 or 2 midterms. If a midterm is missed with a good reason, the weight will be put on the final (ie. the final will be worth 80%)

Calculators: Use of calculators is not permitted in the exams/quizzes.

Content:	Systems of equations, matrix algebra	1.1-1.5, 1.8
	Determinants	2.1-2.4
	Geometry of \mathbb{R}^2 and \mathbb{R}^3 , vector spaces and subspaces, linear combinations, spanning sets, independence, basis and dimension, complex numbers and applications	3.1-3.4, 4.1-4.5
	Orthogonality and Gram-Schmidt	5.1, 5.2, 5.4, 5.5
	Eigenvalues and eigenvectors	6.1, 6.2, 6.4
	Differential equations	8.3