## GRANDE PRAIRIE REGIONAL COLLEGE DEPARTMENT OF SCIENCE MATHEMATICS 1200 A2 FALL SEMESTER 2009

TITLE: LINEAR ALGEBRA I

**SCHEDULE:** LECTURES A2 T R 10:00 – 11:20 J202

SEMINARS AS1 F 09:00 – 09:50 J226

**INSTRUCTOR:** THOMAS KAIP

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EMAIL <u>kaip@gprc.ab.ca</u>

**TEXTBOOK:** Elementary Linear Algebra Applications Version; Anton, Rorres

(9th ED)

COMPOSITION OF THE COURSE GRADE:

FINAL EXAM 50%
MIDTERM EXAM 30%
ASSINMENTS 10%
QUIZZES (4) 10%

**QUIZZES:** THERE WILL BE 4 QUIZZES IN TOTAL. THE DATES ARE TBA.

**COURSE TOPICS:** Systems of Linear Equations

GAUSS-JORDON ELIMINATION AND REDUCED ROW ECHELON FORM

MATRIX ALGEBRA
DETERMINATES
CRAMER'S RULE

GEOMETRY OF VECTORS IN R<sup>n</sup> VECTOR SPACES AND SUBSPACES

LINEAR COMBINATIONS, SPAN AND LINEAR INDEPENDENCE

Basis and Dimension

EIGENVALUES AND EIGENVECTORS

**APPLICATIONS** 

CALCULATORS: No Calculators Allowed in Quizzes, Exams and Seminars.