

## Math 112 - Introduction to Linear Algebra

**Instructor:** Chester Weatherby (math112(at)mast.queensu.ca)

**Office Hours:** ----- and by request.

**Location:** Jeffery Hall rm 128

<b>Times:</b> Monday:	8:30am	Start Date:	Jan. 5th, 2009
Tuesday:	10:30am	End Date:	April 3rd, 2009
Thursday:	9:30am		

**Textbook:** Matrices With Applications by Hugh G. Campbell (courseware)

<b>Evaluation:</b> Homework	20%
Midterm Test	30%
Final Exam	50%

### Course Outline:

- Vectors and Matrices - terminology, vector spaces, bases
- Binary Operations on Matrices - addition, multiplication
- Unary Operations on Matrices - transpose, trace, determinant
- Linear Equations - methods used to solve them, row reduction, Cramer's rule
- Matrix and Linear Transformations
- Eigenvalues and Eigenvectors - calculations and diagonalization
- Discrete Dynamical Systems - recurrence relations, difference equations

### Notes:

- 1) Homework is due at the end of class on the assigned date.
- 2) The midterm will be held in class on Feb. 23rd or Feb. 24th.