Mathematics 115: Winter Term 2009/10

Instructor: James Preen (email: `james_preen@capebretonu.ca`)

Office: A-129A (first floor, A-wing, at the bottom of the ramp)

Office Hours: 10am to noon Monday to Wednesday or by appointment

Class meetings: Lectures: Monday, Wednesday 8:40 to 9:55pm in Room A228;
Labs: Tuesdays 1:00-2:15pm in Computer Lab B1022
Tests: Tuesdays 1:00-2:15pm in Room A228

Textbook: "Elementary Linear Algebra" by W. Keith Nicholson (optional)

Grading:

Coursework	40%
Mid-term test	20%
Final exam	40%

There will be one mid-term test, held in place of a lab session sometime in February. The Final exam will be held during the regular examination period in April. Upon completion of each section of the course some sort of test or assignment will be given. All tests including the final examination will be "open-book" in that any material can be consulted during the test.

Lab sessions will be primarily devoted to aspects of the Maple software package used for matrix and vector manipulations. Topics considered in lab will ordinarily be tied to those discussed in class. Occasionally students will be required to complete a specific assignment in the lab itself.

Academic regulations concerning penalties for plagiarism and cheating (pp. 27-28 of the university calendar) will be rigidly enforced in this course. A supplemental exam for the course will not be made available.

The website for the course is
`http://faculty.capebretonu.ca/jpreen/115/math115.html`

Major Topics:

- Matrices and Systems of Linear Equations

- Determinants and Eigenvalues

- Solution of Systems and Recurrences

- Geometric Vectors

- Vector Spaces