## **Mathematics 115: Winter 2008**

Instructor: James Preen (email: james\_preen@capebretonu.ca, phone 563 1181)

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

Office Hours: Before class or by appointment

Class meetings: Classes Tues 1pm, Thurs 11:30am in Room A235;

Labs/Tests Thursdays 4:00-5:30 in Room B202

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

Tests 20%

Grading: Mid-term test 20%

Final exam 60%

There will be one mid-term test, held in class sometime in February. The Final exam will be held during the regular examination period in April. Upon completion of each section of the book 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 plagiarizing and cheating (pp. 226-227 of the university calendar) will be rigidly enforced in this course. A supplemental exam for the course will not be made available.

## **Major Topics:**

- Matrices and Systems of Linear Equations
- Determinants and Eigenvalues
- Solution of Systems and Recurrences
- Geometric Vectors
- Vector Spaces