## **Mathematics 115: Winter Term 2010/11**

Instructor: James Preen (email: james\_preen@capebretonu.ca)

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

Office Hours: Monday to Thursday 2.30pm to 4pm or by appointment

Class meetings: Lectures: 4pm to 5.15pm Tuesdays and Thursdays in B201

Labs/Tests: 8.30am to 9.55am in CE258 for tests and B1022/B184 for labs

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

Coursework 40%

Grading: 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