

Mathematics 1204: Winter Term 2017/18

Instructor: James Preen (email: james_preen@cbu.ca)

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

Office Hours: Mondays and Wednesdays 13:00 - 16:00

Class meetings: Lectures: 11:30 to 12:45 Mondays and Wednesdays in B227

Labs/Tests: Wednesdays in B202 from 16:00 to 17:15

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

Website: <http://faculty.capebretonu.ca/jpreen/1204>

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 which will count towards the coursework mark. All tests including the final examination will be "open-book" in that any printed material can be consulted during the test, but only simple calculators will be allowed.

The lab session will be used both for learning mathematical software in the computer lab and also for handwritten tests, in an alternate room to be decided. The use of electronic devices in class is allowed, boards can be photographed, explanations can be recorded and Maple will be regularly used and worksheets will be available for copying or download. Students are encouraged to ask for clarification on the material both during and after classes. Class will only be cancelled if campus is closed.

Academic regulations concerning penalties for plagiarism and cheating (page 38 of the university calendar) will be rigidly enforced in this course. Differently-abled students will be accommodated using the JKAC. A supplemental exam for the course will not be made available.

Major Topics:

- Matrices and Systems of Linear Equations (Sections 1.1, 1.2, 1.3, 1.4, 1.5)
- Determinants and Eigenvalues (Sections 2.1, 2.2, 2.3)
- Solution of Systems and Recurrences (Sections 2.4, 2.6, 2.7)
- Geometric Vectors (Sections 3.1, 3.2, 3.3)
- Vector Spaces (Sections 4.1, 4.2, 5.1)