

Mathematics 2103
Fall 2015

- Instructor:** James Preen (email: james_preen@cbu.ca)
- OFFICE:** A-129A (GROUND FLOOR, A-WING, BOTTOM OF THE RAMP)
- Office Hours:** Tuesday and Thursday 10:15 TO 12:45.
- CLASS MEETINGS:** TUESDAYS AND THURSDAYS 13:00 to 14:15 IN CE327
- Textbook:** “Elementary Linear Algebra” by W. Keith Nicholson (optional)
- GRADING:** FOUR OR FIVE ASSIGNMENTS OR TESTS COUNTED EQUALLY.

This course will introduce students to the ideas and concepts that lie behind matrices. Students should become comfortable with generalisations of familiar concepts and be able to work with other vectors spaces as easily as they do matrices and vectors.

Past exams, questions and handouts are available on the web at
<http://faculty.capebretonu.ca/jpreen/2103/>

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. There will be no exam, either final or supplemental.

Major Topics:

- Review of Matrix Algebra using other number systems
- Independence and Vector Spaces
- Linear Transformations
- Inner Products and Orthogonality
- Operators and the Cayley-Hamilton Theorem