

MATH-1071-FA VECTORS AND MATRICES
FALL 2025

Instructor: Prof. Xin Yang LU

email: xlu8@lakeheadu.ca

Classes: MW 1-2.30pm in RB1045.

Labs: Th 2.30-4.30pm in SN2011, to be hold by the TAs.

Office Hours: TTh 4.30-5.30pm in RB2015. Or by appointment, scheduled via email. Please always email me before coming. Zoom option available.

DESCRIPTION

- **Textbook:** *A First Course in Linear Algebra* by K. Kuttler. Not required. Cost is approximately CAD 35. Prices are subject to market fluctuations.

We will cover the following topics: arithmetic with vectors; compute dot and cross products; parametric, and standard form equations for lines and planes; perform arithmetic with matrices; solve systems of equations using Gaussian elimination and Cramer's rule; identify linearly independent vectors and spanning sets; and find the eigenvalues and eigenvectors of a linear transformation.

- **Assignments:** 3 assignments during the semester, each one counting for 15% of the final grade. You will have 2 week to do each assignment.
- **Final Exam:** There will be a formal 3 hours final exam which will count for 55% of the final grade.
- **Policies:**
 - Important announcements will be made through D2L to registered students via D2L. You are responsible for reading the info posted on D2L.
 - I attempt to reply to e-mail in a timely fashion, but do not expect immediate responses.
- **Academic Dishonesty:** All cases of academic dishonesty will be dealt with according to the university's Code of Student Behavior and Disciplinary Procedures, copies of which are available from the university's web-site.
- **Accommodations:** Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: <http://studentaccessibility.lakeheadu.ca>