Syllabus for MATH 2121: Linear Algebra (Fall 2024)

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TAs: See *MATH TA/IA Assignment (2024-25 Fall Term)* on www.math.hkust.edu.hk/

Lectures: (L1) Tuesdays and Thursdays 15:00 - 16:20 in CYTG 010
(L2) Tuesdays and Thursdays 10:30 - 11:50 in CYTG 010

Website: www.math.ust.hk/~emarberg/Math2121/
There is also a course website on Canvas.
The Canvas website will be used to post grades and announcements.

Textbook: Linear Algebra and its Applications by Lay, Lay, and McDonald, 6th Ed.

Outline: This will be a first course in linear algebra, from an applied perspective.
The main topics covered will include solving linear systems of equations,
vector spaces, matrices, linear mappings and matrix forms, inner products,
orthogonality, eigenvalues and eigenvectors, and symmetric matrices.

      No prior knowledge of matrix algebra is assumed.

Grading: Online homework 5% (weekly assignments, weighted equally)
Offline homework 5% (weekly assignments, weighted equally)
Midterm 30%
Final examination 60%

Homework: The homework for the course will have two parts: online and offline.

      The online homework will consist of weekly problem sets accessible in WebWork.
The problems will cover all course content but are easier than exam questions.

      Each week will come with a list of practice problems, which are similar to exam questions.
For the offline homework, you must choose a certain number of practice problems from the
current week and write up complete solutions, showing all steps, like on an exam.

      Your lowest online and offline homework scores will be dropped when computing final grades,
so you can skip one week with no penalty. But there will be no extensions to homework due dates.

Extra credit: If you submit correct solutions to extra practice problems, then you can earn extra credit.
You can earn up to 5% extra credit for your course grade in this way over the whole semester.
See the instructions for the offline homework assignments on the course website.