

Overview for Math 223 (Honours Linear Algebra)

Instructor: Prof. Joel Friedman
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Class: MWF 10:00–10:50am
LSK 460
Office Hours: TBA or by appointment

<http://www.math.ubc.ca/~jf/courses/223.2018-19> is currently the location of the most up-to-date versions of all handouts for this course, including this document, homework and solutions, sample exams and solutions, etc.

Overview: This course is an honours course in basic linear algebra. We will spend the first 2-3 covering applications in an article that I am writing. Afterwards we mostly follow the textbook *Linear Algebra* by Klaus Jänich; it is available for free to anyone with a UBC CWL. Formally the course prerequisite is Math 121 or a sufficiently high grade in a non-honours calculus course; at times we will make use of differential calculus, but are unlikely to use integral calculus.

Software: At times we will make use of computer software for some small matrix computations. We will likely use the package Julia in class; I recommend you use Julia for your homework, but homework done in MATLAB and Octave will also be accepted.

THE MIDTERM WILL BE GIVEN DURING CLASS HOURS ON WEDNESDAY, MARCH 6, 2019. LOCATION WILL BE ANNOUNCED. It will cover material from the start of class until February 13, 2019.

Homework: Homework will be assigned roughly weekly; you will need to submit your homework electronically, most likely via Canvas. Late homework will not be graded; I will drop your lowest three homework scores in computing your average homework mark. You may work on homework together, but you must write up your own solutions (and understand what you are writing); at the top of your homework you must declare with whom you worked on the homework, as well as any sources you used (excepting the course textbook and handouts that I provide).

Midterm and Final: Both exams will consist of some calculations and some more conceptual questions. I will give only one midterm and only one final during the semester; there are no “make-ups” or alternates. Please make sure you do not make travel plans, work plans, etc. without regard for the midterm and final dates; also, do not make such plans assuming that the preliminary exam schedule will not change.

Course Grade: Your grade for the course will be

$$(.55)f + (.35)\max(f, m) + (.10)\max(f, m, h),$$

where f, m, h are, respectively, your final exam grade, your midterm grade, and your homework grade.