

MATH 461 Linear Algebra for Scientists and Engineers

Section 0601

Instructor: Dr. Tamás Darvas

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Grader: TBA

Class: TTh 2:00-3:15pm, MATH0302

Office Hours: Tu 1:00-1:50pm and Th 3:30-4:20pm in my office (MATH4416), and by appointment.

Course Website: www.math.umd.edu/~tdarvas .

Text: David C. Lay: Linear Algebra and its applications 4th ed.

Prerequisites: This is a 400 level course, so some amount of mathematical maturity is expected, but there are no specific prerequisites.

Syllabus: Basic concepts of linear algebra: vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, determinants and quadratic forms. Time permitting, we will discuss important applications of linear algebra (electrical networks, difference equations, discrete dynamical systems, Markov chains, system of differential equations).

Homework: Written homework assigned on a weekly basis, due in seven days (in class). In addition to this there will be 3-4 MATLAB assignments that are due in two weeks (in class). Questions about how specific homework was graded, should be addressed to the grader directly.

You are encouraged to work and learn together, but it is important to make sure that you have a personal mastery of the material. The work you turn in must be your own. Copying answers from an outside source (solutions manual, tutor, the internet, etc.) is forbidden.

All homework assignments are worth the same amount of points (both written and MATLAB). No late homeworks will be accepted. The two lowest homework scores will be dropped at the end of the semester.

Midterms: there will be 3 midterms on the following tentative dates (in class): February 24, April 2, May 7.

Final: The final exam will be comprehensive. The date for the final is May 18 (Monday), 10:30am-12:30pm.

Grade calculation: Homework 20%, Final 30%, Midterms 50%. (Your lowest midterm score is worth 10%, the other two are worth 20%).

Honor Code: It is expected that each student will conduct himself or herself within the guidelines of the UMD Honor System. All academic work should be done with the high level of honesty and integrity that this university demands. For more information, please visit <http://shc.umd.edu/code.html>.