

Math 2243: Linear Algebra and Differential Equations

Course Syllabus

Instructor: Gregg Musiker, **E-mail:** musiker@math.umn.edu

Office Number: Vincent Hall 251, **Telephone:** 624-7073

Meeting time: This class will meet on MWF 10:10 - 11:00 am in Rapson Hall 100.

Office hours: WF 11:15 am - 12:05 pm; Thursday 2:30-3:20 pm; also by appointment.

Course Webpage: <http://www.math.umn.edu/~musiker/2243/>

TA's: Kevin Dilks (dilks003@umn.edu), Xu Wang (wang1591@umn.edu), and Ning Wei (weixx170@umn.edu)

Prerequisites: Math 1272, or 1282, or 1372, or 1572.

Required Text: *Differential Equations and Linear Algebra, 3rd edition* by Edwards and Penney.

Course Content: This course consists of two related parts, linear algebra (matrices, determinants, Gaussian elimination, vector spaces, eigenvalues, diagonalization) and ordinary differential equations (linear equations, Wronskian, solution by eigenvalues and eigenvectors).

We will cover most of chapters 1, 2, 3, 4, 5, 6, 7, and 10.

Homework: Homework will be assigned in class every day and the assignment will be posted on the course webpage. Homework will not be collected and graded. Yet doing homework is absolutely indispensable for success in the course. Problems on quizzes and exams will be very similar to the homework problems.

Quizzes: A quiz will be given every Tuesday (except for the first and last week). It will be based on the homework assigned during the preceding week. You cannot make up a quiz. The two lowest quiz scores will be dropped. The quizzes are handled exclusively by your TA's.

Exams: There will be three 50-minute in-class midterm exams and a 3-hour final exam. The midterm exams will be in discussion sections on Thursdays, tentatively scheduled for February 21, March 28, and April 25. The final exam will be a comprehensive exam over all the material covered in the course. All sections of Math 2243 take the same final exam on May 13.

Make up exams: Will be allowed only under truly exceptional circumstances. You must notify the lecturer, not the TA, at least a week in advance.

Calculators/Cell phones: All quizzes and exams are closed book and closed notes, but a basic scientific calculator will be allowed. These are calculators that can evaluate trigonometric, exponential, or logarithmic functions. Graphing calculators or calculators that can do symbolic manipulations will not be allowed during exams and quizzes. As a courtesy to me and your fellow students, please turn your cell phone off before class starts. The use of your cellphone as a calculator on quizzes and exams is also prohibited.

Final Grade: Quizzes count for 25%, each of the midterm exams for 15%, and the final exam for 30%.

If your cumulative score is at least 90%, you are guaranteed an A. If your score is at least 75%, you are guaranteed a B-, and if your score is at least 60%, you are guaranteed a C- for the class.

S/N Grade: If you are registered S/N, I will submit a grade of S if your letter grade is C or above, and otherwise a grade of N.

Study Resources/Tutoring: Additional study resources and info about tutoring through the SMART Learning Commons is available at https://www.lib.umn.edu/libdata/page_print.phtml?page_id=2901.

Disability Accommodations: Disability Services promotes access and equity for everyone at the U of M. If you are registered with DS and require accommodations or services, please contact the instructor as soon as possible. If you require accommodations, but are not registered with DS, please contact their office at <https://diversity.umn.edu/disability/>.

To drop the course: For the various rules and deadlines for dropping the course, visit One-Stop:

http://onestop.umn.edu/calendars/cancel_add_refund_deadlines/spring_2013.html.

Incomplete grade: A grade of “I” will only be considered when failure to complete all course requirements is for reasons beyond the student’s control. The minimum requirement for an incomplete grade is a substantial amount of course work completed at the level of C- or better. An “I” grade also requires a written agreement between the student and the instructor on how the missing work will be completed. After one year, an “I” turns into an “F” if the course work is not completed. Any arrangement for an incomplete grade can only be considered BEFORE the final exam.

Scholastic Misconduct: You must do your own work on all quizzes and exams. Academic dishonesty in any work for this course will be grounds for awarding a grade of “F” for the entire course. University policies regarding academic dishonesty, credit, workload expectations, and grading standards are at <http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html> and <http://policy.umn.edu/Policies/Education/Education/STUDENTWORK.html>.

Tentative Lecture and Homework Schedule:

Please see <http://www.math.umn.edu/~musiker/2243/Homework.html> for updated info.