

Differential Equations and Matrix Algebra for Engineers

MAT485-M001, Summer II-2017

Lecture: Monday, Tuesday, Wednesday and Thursday, 02:00PM-03:45PM.
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Office Hours: Tuesday and Thursday: 3:45PM-4:45PM or by appointment.

Textbook: *Differential Equations & Linear Algebra (Second Edition)* by Farlow, Hall, McDill, and West, Prentice Hall, 2007. We expect to cover Chapters 1-8 with some omissions. The sections to be covered and the list of assigned homework problems from every section are given below.

Prerequisite and Credit: MAT 397. Credit cannot be given for both MAT 485 and MAT 414 or for both MAT 485 and MAT 331. MAT 485 does not count towards mathematics major, and students in CIS should not take it.

Calculators: A calculator is not required for this course. *In particular, no calculators will be allowed on the exams or quizzes. Use or availability of any calculator or other electronic device on the exams or quizzes will be a violation of the Academic Integrity Policy.* You may use calculators for learning purposes and for solving homework. On exams and quizzes complete solutions, and not merely answers, must be presented to receive credit.

Homework and Quizzes: Homework and their due dates will be announced in class and posted on blackboard. Starting from the second day of classes, expect a quiz during each and every lecture. There will be no make-up quizzes.

Examinations: There will be two in-class midterm exams and a final exam.

Exam1	July 18, 2017
Exam2	August 03, 2017
Final exam	August 10, 2017

There will be no make-ups for the midterm exams or the final. The final grades will be computed as follows:

Each of the first two exams	25%
Homework and Quizzes	20%
Final exam	30%

To find your final class grade at the end of the semester, add all your points weighted to the previous percentages, and then find the corresponding percentage in the table below.

0–59%	60–69%	70–72%	73–76%	77–79%	80–82%	83–86%	87–89%	90–92%	93–100%
F	D	C-	C	C+	B-	B	B+	A-	A

Attendance: You are expected to attend and participate in class. Missing class is the most common reason for poor performance in the course. If you miss a class, you are responsible for obtaining notes for that class from a student who attended. It is also your responsibility to find out about any announcements concerning homework, quizzes or exams that were made during the class.

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see <http://academicintegrity.syr.edu>

Students with disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call 315-443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations. Making arrangements with ODS takes time. Do not wait until just before the first test.

Tips for Success: Don't fall behind! The material builds upon itself rapidly, so try to keep up on a daily basis. It is absolutely essential that you understand how to solve all the assigned problems. Once you understand how to solve a problem, write down your solution neatly and in full detail with explanations that make your reasoning clear. This will make your old homework assignments more useful to you when you are studying for an exam. Expect to work hard, be persistent and patient.

Important Dates:

- First day of Classes: July 03, 2017
- Add Class Deadline: July 06, 2017
- Financial Drop Deadline: July 11, 2017
- Academic Drop Deadline: July 26, 2017
- Withdrawal Deadline: August 04, 2017
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Suggested Homework Problems:

Section	Problems
1.2	3, 5, 7
1.3	11, 13, 18, 21, 23, 25, 57
2.1	1, 3, 5
2.2	3, 5, 7, 11, 15, 17, 19
2.3	1, 2, 7, 11, 13
2.4	3, 5, 7, 15, 21(a)
2.5	14, 23, 27
3.1	1, 3, 7, 11, 12, 23, 34(a,b), 51, 55, 79, 81
3.2	1, 11, 25, 31, 33, 53, 62, 64
3.3	6, 8, 9, 12, 20
3.4	1, 3, 4, 15, 16, 23, 39, 41
3.5	1, 5, 11, 13, 15, 19, 20, 22, 53, 54, 55
3.6	1, 2, 7, 9, 10, 19, 20, 22, 43, 44, 49, 51, 63, 64
4.1	1, 3, 14, 17, 19, 23, 25, 46
4.2	1, 3, 5, 8, 15, 17, 56, 59
4.3	1, 3, 5, 11, 13, 62, 64
4.4	1, 2, 3, 7, 9, 10, 19, 25, 27, 46
4.5	1, 2, 9
5.1	1, 2, 7, 23, 33, 34, 38
5.2	3, 5, 13, 25, 31, 68, 70, 72, 78
5.3	1, 2, 3, 19, 21, 24
6.1	1, 2, 5, 6
6.2	9, 11, 21, 23, 25, 29, 31
6.3	1, 3, 5, 13, 30, 32
6.4	1, 2, 3, 4, 5, 6, 7, 8
7.2	1, 3, 5, 7, 9, 11, 12
8.1	1, 2, 5, 9, 11, 12, 17, 32, 33, 41, 45, 49
8.2	1, 3, 5, 9, 11, 13
8.3	17, 20, 24, 28, 30, 33, 34, 36, 50