

Departmental syllabus for MAT 485
Fall 2018
Differential Equations and Matrix Algebra for Engineers

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Class meets TTh in Carnegie 122
Section 001 11:00 am – 12:20 pm
Section 004 9:30 – 10:50 am

Office hours: W 12:45 – 2:15 PM, TTh 12:30 – 2:00 PM, or by appointment

Course Description: Solutions of ordinary differential equations, Laplace transforms, vector spaces, matrix algebra, linear systems, eigenvalues and eigenvectors. Prerequisites: 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.

Text: Differential Equations & Linear Algebra by Farlow, Hall, McDill, and West, Pearson, 2nd edition. We expect to cover Chapters 1-8 with some omissions. A tentative day-by-day schedule of sections covered and the list of assigned homework problems are given below.

Exams: There will be two tests during the semester and a cumulative final examination, as well as quizzes and/or graded homework. *The final examination covers the entire course. It is a two-hour exam and will be given on **Wednesday, December 12, 2018**, between the hours of 8:00 a.m. and 2:30 p.m. The exact time and location of your final examination will be announced in lecture. The final examination is given at this announced time and at no other time. **Do not make plans to leave campus before 2:30 p. m. on Wednesday, December 12, 2018.***

The course grade will be computed as follows: each term exam counts 25%, homework and class participation count 15%, and the final exam counts 35%. At the end of the semester your average may be curved so that the final grade will be given by the rule:

A= 93-100	A-= 90-92	B+=87-89	B=83-86	B-=80-82
C+=77-79	C=73-76	C-=70-72	D=60-69	F= less than 60

Make-ups

No make-up examinations will be given. If you expect to miss an examination for a legitimate reason, discuss this, in advance, with your instructor, who may then substitute the relevant score from your final examination for the missing grade.

Calculator policy: 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.

Attendance: You are expected to attend class and participate in it. If you miss a class, you are responsible for obtaining notes and any announcements from that class from another student.

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 303 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 for 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.

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 is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy 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>

Complete academic honesty is expected of all students. Any incidence of academic dishonesty, as defined by the SU Academic Integrity Policy, will result in both course sanctions and formal notification of the College of Arts & Sciences.

Religious observances policy: SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services → Enrollment → My Religious Observances) from the first day of class until the end of the second week of class.

MAT 485

Homework, TTh Sections 001 and 004 Fall 2018

Class	Date	Sections	Exercises
1.	8/28	1.2 1.3 1.4-1.5	3, 5, 7 11, 13, 17, 21, 25, 27, 31, 33, 57
2.	8/30	2.1 2.2	1, 3, 5 3, 5, 7, 11, 15, 17, 19
3.	9/4	2.5 3.1	1, 3, 5, 15 1, 3, 7, 11, 13, 17, 21, 34(ab), 51, 55, 59
4.	9/6	3.2	1, 11, 25, 31, 33, 53, 62, 64
5.	9/11	3.3	6, 7, 9, 11, 15, 20, 48
6.	9/13	3.4	1, 3, 5, 12, 20, 23, 39, 41
7.	9/18	3.5 3.6	1, 5, 11, 13, 15, 19, 21, 53, 54, 55 1, 3, 7, 9, 11
8.	9/20	3.6	19, 21, 23, 45, 62, 63, 64
9.	9/25	Catch-up, Review	
10.	9/27	EXAM 1	
11.	10/2	4.1	1, 3, 15, 17, 19, 23, 25, 46, 58
12.	10/4	4.2 4.3	1, 3, 5, 7, 15, 17, 56, 59 1, 3, 5, 11, 13, 62, 64
13.	10/9	4.4 4.5	7, 9, 11, 13, 29, 33, 35, 41, 45, 47 3, 5, 9, 11, 13
14.	10/11	5.1	1, 5, 9, 33, 35, 37, 39, 43
15.	10/16	5.2	2, 5, 7, 13, 25, 27, 29, 31, 35, 37

		5.3	1, 2, 3
16.	10/18	5.3 5.4	19, 21, 27 25, 26, 35, 37
17.	10/23	6.1 6.2	1, 3, 5, 7 9, 11, 21, 23, 25, 29, 31
18.	10/25	6.3	1, 3, 5, 13, 30, 32
19.	10/30	6.6	1, 3, 7, 9, 11, 13
20.	11/1	6.7	5, 7, 9, 11, 13, 14, 15
21.	11/6	6.4	1, 2, 3, 4, 5, 6, 7, 8
22.	11/8	Catch-up, Review	
23.	11/13	EXAM 2	
24.	11/15	7.2	1, 3, 5, 7, 9, 11, 12
25.	11/27	8.1	1, 2, 5, 9, 11, 12, 17, 32, 33, 41, 45, 49
26.	11/29	8.2	1, 3, 5, 9, 11, 13
27.	12/4	8.3	3, 11, 17, 20, 24, 28, 30, 33, 34, 36
28.	12/6	Catch-up, Review	

FINAL EXAM

Wednesday, December 12