A current, updated copy of this syllabus will be available
http://www2.math.umd.edu/~matei/
Dr. M. Machedon, Math Bldg. 3311, e-mail: mxm@math.umd.edu
Office hours: 10 -10:50 Tuesdays and Thursdays (in Math 3311).

Discussion sections
0311 F 8:00am - 8:50am MTH 0401 Ian Johnson
0312 F 8:00am - 8:50am MTH 0305 Brandon Alexander
0321 F 9:00am - 9:50am MTH 0401 Ian Johnson
0322 F 9:00am - 9:50am MTH 0305 Brandon Alexander
0331 F 10:00am - 10:50am MTH 0401 Ian Johnson
0332 F 10:00am - 10:50am MTH 0305 Brandon Alexander
0341 F 11:00am - 11:50am MTH 0401 Ian Johnson
0342 F 11:00am - 11:50am MTH 0305 Brandon Alexander

Graduate assistants’ contact information and office hours:
Brandon Alexander 4326 CSS Building bralex1@math.umd.edu
Office hours: Mondays 3-5
Ian Johnson 2117 Mathematics Building ijohnso6@umd.edu
Office hours: Wednesdays 1-3
Please feel free to come to any of these office hours.

Additional resources:
Matlab tutoring: (once the Fall 15 page has been posted)
http://www-math.umd.edu/math-tutoring-schedule.html
Tutoring: (once the Fall 15 page has been posted)
http://www-math.umd.edu/math-tutoring-schedule.html

Textbooks: On-line notes by Prof. Levermore
https://courses.math.umd.edu/math246/NODE/1516F/main.html
(log in with your University username and password), and a Matlab
textbook by Hunt, Lipsman, Osborn, Rosenberg , Differential Equa-
tions with Matlab, third edition.
The final grade will be based on Matlab Homework (10%), five 20 min-
utes in-class quizzes (20%) three in-class exams (40%), and a uniform
final exam (30%).

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Students with less than 50% of the maximum possible will receive an F. I expect the C/D cutoff to be 60%.

Recent exams (given by Prof Levermore) can be found at http://www.terpconnect.umd.edu/~lvrmr/2013-2014-F/Classes/MATH246/Exams.html. These will serve as practice exams for our class.

**Quiz dates:**
- Thursday, September 10
- Thursday, September 17
- Thursday, October 8
- Tuesday, November 10
- Tuesday, December 8

**Exam dates:**
- Tuesday, September 29 will cover sections I.2-I.8
- Tuesday, October 27 will cover sections II.1-II.8
- Exam 3 on Tuesday, November 24 covering II.9, III.1-III.5
- Uniform final exam: Monday, December 14, 1:30-3:30pm at a location to be announced later.

If the University is closed during one of the above quiz or exam dates, the quiz or exam will take place the following (large, Tu-Th) lecture.

**Matlab problem sets** (from the book by Hunt, Lipsman, Osborn and Rosenberg)
- Due Friday, September 4: Read Chapters 1-4 in enough detail so you can solve and turn in Problem set A 11, 13a, b
- Due Friday, September 25: Read Chapters 5, 6, 7. Turn in B 3 a-c, 5, 15 a-b, 18, 20 a-c You can look at the answer to problem 5 for hints, but please don’t copy it word by word.
- Due Friday, October 9: Read pages 98-106 and 109-112 from the Matlab textbook. Solve and turn in C 3a, 7a, 13 (a, c), 16a.
- Due Friday, November 6: D 1a, 4, 12, 15a
- Due Friday, December 4: E 13(a, b) Here \( u_c(t) = u(t - c) = \text{heaviside}(t - c) \), F 1 (first matrix only), 5a, 10 (a, b, c)

Make-up policy: There will be no make-ups for in-class exams or quizzes. In the case of an absence due to illness, religious observance, participation in a University activity at the request of University authorities, or other compelling circumstances, your blank grade will be replaced by the average of your other in-class exams (respectively, quizzes).

The major grading events for this class are the three in-class exams and the final. I will accept a self-signed note which acknowledges valid
reasons for missing one exam or quiz, but will require formal written documentation (such as from a medical provider) for subsequent absences.

After each in-class exam or quiz students have one week from when the exam is returned to appeal the grading. Appeals for the final grade must be made in writing. No appeals for regrading work done during the semester (including the third exam), can be made after the day of the final exam.

On exams students must write by hand and sign the following pledge:
I pledge on my honor that I have not given or received any unauthorized assistance on this examination.

During exams, students are expected to apply the ideas they learn to some problems that are significantly different from the examples and homework they have seen.

Students who require special examination conditions must register with the office of the Disabled Students Services (DSS) in Shoemaker Hall. Documentation must be provided to the instructor. Proper forms must be filled and provided to the instructor before every exam.

The University’s policy on religious observance and classroom and tests states that students should not be penalized for participation in religious observances. Students are responsible for notifying the instructor of projected absences within the first two weeks of the semester. This is especially important for final examinations.

I will communicate with the class by e-mail. You are expected to have a correct e-mail address. You can update your e-mail address at http://www.testudo.umd.edu/apps/saddr/

Matlab assignments should be printed neatly so both input and output show, and should be handed to your TA (not to the professor) during discussion on the Friday they are due. The first short problem set (A) is an individual project. For the following ones, you are allowed (and encouraged) to do the Matlab homeworks in teams of two (not more).

You can access Matlab from many campus computers, or remotely, at http://eit.umd.edu/vcl (follow the instructions). No late Matlab homework will be accepted. In the case of an excused absence your blank grade will be replaced by the average of your other Matlab grades.
Problems for Friday September 4 (from the notes by Dr Levermore; recommended, not to be turned in)

Read I.1
I. 2 : (1 a, b, f), (3), (4), (6), (7), (8), (12), (15), (16)
I. 3: (1), (6), (7), (17)

Problems for September 11
I. 4 (2), (3)
I. 5 (1), (2), (3), (4), (6)

Problems for September 18
I. 6 (2), (6), (7), (8), (15)
I. 7 (2), (3)

Problems for September 25
I. 8 (1), (3), (6), (8), (12)
I. 9: Not covered.

Exam 1: Tuesday September 29 on Chapter I.1-I.8.
Recommended problems for Friday, October 2
II. 1 (8)
II.2 (1), (3), (7), (11), (13), (18), (31), (32)

For Friday, October 9
II.3 (1 a, c), (3), (4 a), (9), (10)
II.4 (1), (2), (3), (4), (6), (8), (10), (11), (22), (33), (37), (40)

For Friday, October 16
II.5: (2), (9), (10)
II.6: (2), (3), (4), (5), (6), (7), (13), (15), (21), (22), (23)

For Friday, October 23
II.7: (2), (4), (8)
II.8 (1), (3), (6), (7), (11)

The exam on Tuesday, October 27 will cover sections II.1-II.8
Recommended problems for Friday October 30 and/or Friday November 6
II.9: (5), (6), (7), (8), (9), (12), (13), (15), (16), (17), (18)

For Friday, November 13
III.1 : (2), (10), (15)
III.2: (1), (11), (13), (14)
III.3 (2), (5), (8)-(13), (17), (20), (25)

For Friday, Nov 20
III.4: (7)-(9) (for 7-9, also find the matrix A), (10)-(15), (20), (21)
III.5 (1), (2), (3), (13)-(17), (20), (21), (35), (36)

Exam 3 on Tuesday, November 24 covering II.9, III.1-III.5
For Friday, December 4
III.6 (1)-(12)
III.7 (5), (6), (7), (8), (13), (14), (15), (19), (21)

For Friday, December 11
III.8 (8)-(15), (21), (23)
III.9 (2), (3)