Syllabus for math 18: linear algebra
MWF 10-10:50 at SOLIS 104

Description: linear equations, matrices, determinants, vector spaces, eigenvalues/eigenvectors, orthogonality
Textbook: Linear algebra and its applications (5th edition) by D. Lay, S. Lay, J. McDonald
Professor: jiangang ying
Office: apm 7450
Office hour: 1:30-2:30pm, Monday, Wednesday, Friday

Subject Material: We will cover parts of chapters 1-6 of the text.

Lecture: Attending the lecture is a fundamental part of the course; you are responsible for material presented in the lecture whether or not it is discussed in the textbook. You should expect questions on the exams that will test your understanding of concepts discussed in the lecture.

Reading: Reading the sections of the textbook corresponding to the assigned homework exercises is considered part of the homework assignment; you are responsible for material in the assigned reading whether or not it is discussed in the lecture.

TritonEd & MyMathLab: We will use TritonEd for two purposes in this class: to disseminate grades, and as a portal to MyMathLab, the online homework system associated to the textbook, through which you will submit your homework. In the course page on TritonEd, you can click on MyLab in the right tab. There you will see links to Pearson MyMathLab. The first time you login, you will be prompted to create an account with Pearson, and then enter the access code that came with your textbook (or you may purchase one here). This is a one-time procedure; after that every time you login will give you direct access to MyMathLab. There you will find all currently available homework assignments, along with their listed due dates. You will also have access to the ebook version of the textbook here (for the lifetime of the current edition).

• Note: You may register for MyMathLab for 14 days before paying if you need time to decide.

Homework: Homework is a very important part of the course and in order to fully master the topics it is essential that you work carefully on every assignment and try your best to complete every problem. We will have two different kinds of homework assignments in this class: online homework (which will be graded) and "paper-and-pen" homework (which will not be graded).

• Online homework will be assigned through MyMathLab and will be accessible via TritonEd https://tritoned.ucsd.edu/ as indicated above.
  o Your total homework score will be based on the total possible homework points available; no homework assignment scores will be dropped at the end of the quarter.
You will be allowed an unlimited number of attempts up to the due date to complete each problem correctly.

- You will be allowed to complete homework problems up to one week late for a 50% penalty applied to those problems submitted late.
- The "paper-and-pen" homework assignments will be announced on the course [homework page](http://www.math.ucsd.edu/~jeggers/math18/homework.html). These assignments will not be turned in and will not be graded; however, you are responsible for the ideas illustrated by these exercises and exam questions could be based on them.

You can get help with the homework assignments in the [Calculus Tutoring Lab](http://www.math.ucsd.edu/~jeggers/math18/homework.html).

***Because the system may not be ready, students may need to wait until Tuesday 1/18/2017 to log on online homework system. The first homework due date will be postponed. Please send inquiry to Prof John Eggers at jeggers@ucsd.edu who coordinates math 18.***

**MATLAB:** In applications of linear algebra, the theoretical concepts that you will learn in lecture are used together with computers to solve large scale problems. Thus, in addition to your written homework, you will be required to do homework using the computer language MATLAB. The [Math 18 MATLAB Assignments page](http://www.math.ucsd.edu/~math18/) contains all information relevant to the MATLAB component of Math 18. The first assignment is due in week 2 of the course. You can do the homework on any campus computer that has MATLAB. Questions regarding the MATLAB assignments should be directed to the TAs. There are also tutors available beginning Thursday or Friday of the first week of classes in B432 of AP&M. Please upload your MATLAB homework assignments to Gradescope by the due date according to the instructions found on the [Math 18 MATLAB Assignments page](http://www.math.ucsd.edu/~math18/); note that late MATLAB homework will not be accepted, but in case you have to miss one MATLAB assignment, your lowest MATLAB homework score will be dropped. There will be a MATLAB quiz at the end of the quarter.

Midterm 1: Feb 1, covers roughly 1.1-1.9, and 2.1
Midterm 2: Mar 1, covers roughly 2.2-2.3,4.1-4.7,3.1-3.2

You may bring one 8.5 by 11 inch handwritten sheet of notes with you to each midterm exam; no other notes (or books) will be allowed. No calculators will be allowed during the midterm exams. **There will be no makeup exams.**

Final exam: Friday 3/24/17 from 8-11am, contains all contents covered in the lectures.
Grade= 20% homework+ 20% midterm 1+20% midterm 2+40% final exam

You may drop a midterm, and in that case the 20% will add to final exam. If you want to drop midterm, be sure come to my office and sign your name to make a formal request, in the week before final exam.

Attention: Considering suggestion from professors and students, the final grade will take the highest of the following three scores automatically.
1. 20% homework + 20% midterm 1 + 20% midterm 2 + 40% final exam

2. 20% homework + 20% midterm 1 + 60% final exam

3. 20% homework + 20% midterm 2 + 60% final exam

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