Math 242: Introduction to Elementary Applied Linear Algebra
Course Syllabus
Instructor: Dr. Fred Park
Spring 2015

Course Description

This is a semester long course in matrices and determinants, systems of linear equations, vector spaces, linear transformations, eigenvalues, eigenvectors, diagonalization, matrix factorization, singular value decomposition, and applications to image processing and computer vision.
Pre-req: MATH 141B with a grade of C- of better.

Instructor Information

Instructor: Dr. Fred Park
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webpage: www.fredpark.com
Office: Science 105D
Phone: 562-907-4200, ext. 4880
OH's: MWF 3:30-5pm or by appointment

Course Information

Times and Location: MWF 11-11:50 in SC 204 unless otherwise indicated
Textbook: "Linear Algebra and Its Applications" 4th edition by David C. Lay

Course Breakdown

Scheme #1:

- HW 15%

- Class Presentation 5%

- MT #1 25%

- MT #2 25%

- Final 30%

**Scheme #2
(Emergencies Only!!)**:

- HW 15%

- Class Presentation 5%

- One Midterm 25%

- Final 55%

No makeup exams whatsoever. I highly recommend you taking both midterm exams since scheme #2 is only for emergencies. I will automatically take the higher of both schemes at the end of the course when determining your final grade.

Final Course Evaluations

Final Evaluations: 1% total bump in course grade. For example if your final total course average from the higher of scheme #1 and #2 is an 89% total (B+ grade), your final average gets bumped to 90% (Now an A- grade). I highly recommend that everyone does the final course evaluations.

Grading Scale

In this course, I will utilize an A-F scale with +/- grading. The percentage breakdowns based on the highest average from scheme #1 and #2 above are as follows:

- 90-100% A Range

- 80-89.9% B Range

- 68-79.9% C Range

- 58-67.9% D Range

  The minimum grading guidelines in terms of percentage of the class are as follows:

- 20% of the class will be in the A Range

- 30% of the class will be in the B Range

- 35% of the class will be in the C Range

To obtain an "A" grade in my course, you will have to work very hard. In general, there are no easy "A's" in my courses.

Exam Dates

The exam dates are set in stone and will not change. Please write these down in your scheduler ASAP.

- MT #1: Fri March 6th from 11-11:50 AM in SC 204

- MT #2: Fri April 17th from 11-11:50 AM in TBA

- Final: Mon May 11th from 8-10 AM in TBA

Homework

HW is due at the beginning of class each Weds no later than 11:05 AM. No HW will be accepted after the 11:05 AM deadline. Please do not walk up and attempt to turn your assignment into the front of class after the 11:05 AM deadline since it will not be accepted. Moreover, such action would be deemed as disruptive to the class. HW assignments will consist of pencil and paper type of problems along with some programming/computational problems using Matlab software.
You are allowed to drop 2 of the assignments. Please make sure to keep up with the homework after each lecture.

Class Presentation

You will need to present one problem to the class detailing how it is solved. More details from Instructor later in the semester.

Computer Labs

This course will involve some computer work with Matlab, a high level programming language and industry standard in science and engineering. The class will be a Bring Your Own Device (BYOD) in regard to computers. If you have a laptop with wifi, you will be able to access the software from any location on campus. If you do not have a laptop, you can borrow one from library. In general, it is a good idea to bring your laptop to class each lecture.

Study Time and Class Expectations

For every 1 hour of lecture you should be studying 3 hours outside of class. That is at least 9 hours a week outside of class of studying and HW. Math is a difficult and time consuming subject. Please keep up with the work and do not 'Cram' for any exams or HW deadlines since this usually results in very poor results. I recommend at least 12 hours a week of study outside the classroom for this course at the minimum.

Class Attendance

Class attendance is mandatory! If you will miss more than 2 total lectures (unexcused) throughout the course, your final grade will drop 1/2 letter grade for each absence past the 2 allowed. For example:

- 3 unexcused absences: You drop 1/2 letter grade. e.g. your B– grade now becomes a C+.

- 4 unexcused absences: You drop 1 full letter grade. e.g. your B– grade now becomes a C–.

- 5 unexcused absences: You drop 1-1/2 letter grades. e.g. your B– grade now becomes a D+.

Cheating

Cheating will absolutely not be tolerated in any way, shape, or form in this course!! I have not had any issues in the past and do not plan on starting. Cheating in any form will be recorded and the student will be sent to the Dean. Cheating has far reaching consequences that can affect your future career path. Quite simply put: Don't Do It!

Group Work

I encourage group work and you may work together. But you must have your own write ups of your HW and only if you completely understand the problem being solved.

Disruptive Behavior

Disruptive behavior will absolutely not be tolerated in any way, shape, or form in this class. This includes cell phone use (talking, texting, email, etc), computer use, talking, chatting, or any other general disruptions. If you are being disruptive in the class to the instructor and your fellow students, you will be asked to leave.