

Math 350 Course Syllabus

Instructor: Dr. Fred Park

Fall 2016

Course Description

This is a semester long course in Numerical Analysis. Description: The numerical solutions of non-linear equations, curve fitting, error estimation and analysis. We will also cover selected topics chosen from the following: numerical differentiation, numerical integration, solution of linear systems, solution of initial value problems i.e. numerical solution to ODE's, discrete least squares approximation, the discrete Fourier Transform. Prerequisite: "C-" grade or better in MATH 242 and MATH 345A or permission from the instructor.

Instructor Information

Instructor: Dr. Fred Park
email: fepark@whittier.edu
webpage: www.fredpark.com
Office: SLC 22
Phone: 562-907-4880
OH's: TBA

Course Information

- Times and Location: MW 3:00-4:20 in SLC 416
- Textbook: "Numerical Analysis" 10th Edition by Richard L. Burden and J. Douglas Faires Textbook can be purchased at the bookstore or by any other means. You must have the 10th edition!
- Required Software: Matlab Student Version R2016a. At \$99, it includes everything you need computationally for the course. http://www.mathworks.com/academia/student_version/

Course Breakdown

Scheme #1:

- HW 30%
- MT 30%
- Final 40%

Scheme #2

(Emergencies Only!!):

- HW 30%
- Final 70%

No makeup exams whatsoever! I highly recommend you taking the midterm exam 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. An automatic "F" grade will be issued to anyone who does not take the final exam.

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.

- Midterm: Weds October 26th from 3:00-4:20 PM in SLC 416
- Final: Take Home Project

Homework

HW is due at the beginning of class on alternate Weds no later than 3:05 PM unless indicated otherwise by the instructor. No HW will be accepted after the 3:05 PM deadline. Please do not walk up and attempt to turn your assignment into the front of class after the 3:05 PM deadline since it will not be accepted. Moreover, such action would be deemed as disruptive to the class. There are 6 assignments total. You are allowed to drop 1 of the assignments. Please make sure to keep up with the homework after each lecture.

Coding and Matlab

There will be a large computational aspect to this course. This will include programming assignments in Matlab. The computational part of this course is extremely important and will be useful for all of your future work. The student version of the software can be used for your remaining time in college and will prove to be valuable.

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 15 hours a week of study outside the classroom for this course.

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+.

Valid excuses include a doctors note, emergency (documented), or sports related travel. For sports travel, you must bring in the necessary forms ahead of time for me to sign or else your absence will be counted towards the two allowed.

Active Learning

Active learning will be a large component of the class time. You will be required to work in groups, challenged to think, and work problems out in class on a regular basis. There will be a 50/50 split between lecture and group work. Active learning exercises will be graded and required to be turned in. This includes both group work and individual work. There will also be quizzes throughout the semester. You may drop only 1 graded active learning exercise or quiz. No make up quizzes or exercises whatsoever under any circumstances. Quizzes will be counted towards your HW grade.

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. Please note that if you simply copy a solution from another student, this falls into the category of cheating.

Accomodations

Students desiring accommodations on the basis of physical, learning, or psychological disability for this class are to contact Disability Services. Disability Services is located on the ground floor of the Library, room G003, and can be reached by calling extension 562-907-4825.

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.