Tu-Th 11:00-12:15 ILB 360.


Instructor: Prof. Scott Carter, ILB 308, 460-6264, x66756, e-mail: carter@jaguar1.usouthal.edu

Office Hours: MW 10AM-12:00PM; Tu-Th 1:30-2:30PM or by appointment. You are encouraged to come to office hours to ask about the course and to get acquainted.

Grading Policies: All points earned are positive points. The total number of possible points will depend on the number of quizzes that are given, and the number of points on the tests. In last semester’s Ma 237, for example, there were roughly 450 points, and any student who earned more than 395 points received an A. You should work to earn above 90% of the possible points.

There will be written quizzes that cover the homework assignments. These will be held every Tuesday and on unannounced days as I deem necessary. Quiz points will range from 3 to 10 points each. Anticipate that the total possible quiz grade will be in the range of 100 to 150 points.

Tests: There will be 2 tests: Thursday, February 17 and Thursday April 14. Each counts at least 100 points. According to my reading of the final is scheduled on **Tuesday, May 10, 2011** from 10:30 AM until 12:30 PM.

If you have a *good excuse* for not making it to one of the exams, then your final exam will count as if it were 250 points. However, lenience in grading policy will only be granted if you ask, and the final determination, if it is warranted, is up to me. As a result *make-up exams* will be an extreme rarity.

Scoring: There will be more than 450 points available. If you miss a quiz, you do not earn points. I will keep you informed on the total number of points that possibly can be earned as these points are earned. Thus your quiz papers will contain a score for the quiz and a cumulative score expressed as an unreduced fraction.

I will keep track of the possible denominator, but towards the end of the semester, I will grade your total points out of a fictitious denominator that is less than or equal to the actual denominator. You will always be able to compute your cumulative points. You should pretend that your grade is on a standard, 60%, 70%, 80%, 90% scale even though I will show some lenience towards the end.

I encourage excellence on your part, and I hope to achieve excellence myself.

Absences: Habitually absent students lose privileges: *E.g.* office hours, sensitive answers to in class questions, and grading appeals. If you are absent, I will be contacting you and your academic advisor. I am prepared to call your cell phone at times that may not be convenient for you. The syllabus is subject to change and clarification. Therefore, class attendance is important. Also there are unannounced quizzes. If you miss a day on which there is a quiz, you do not earn these points.

If you do not understand an explanation on Tuesday, it may be the case that clarification is given on Thursday.
Goals. Upon the successful completion of the course a student will be able to:

1. determine an orthonormal basis from a given basis of a finite dimensional vector space;
2. approximate a sine or cosine function by Fourier polynomials;
3. determine a least squares approximation to a given data set;
4. use the spectral theorem to classify quadratic forms;
5. understand and apply the hermitian spectral theorem;
6. decompose an arbitrary rectangular matrix in SVT form;
7. compute the Jordan canonical form.

Other Remarks:

1. Calculators Many computations within the course are facilitated with a high powered calculator that will compute reduced row echelon forms, determinants, eigenvalues, etc. However, you should also learn how to complete such computations without the calculator.

2. Blue books On or before Feb. 1, 2011, supply me with 3 large blank blue books. Do not write your name on the blue books! Do not purchase your blue books at Ander’s bookstore; if you do, I will ask you to return them. These will be used for tests and the final.

3. Special Students If you have a specific disability that qualifies you for academic accommodations, please notify the instructor/professor and provide certification from Special Student Services. (OSSS is located in Room 270 of the Student Center (460-7212).

4. Disclaimer I have the right and the duty to modify the requirements of the course as circumstances dictate. Such changes will be provided to the students in class and in writing. This is another reason that attendance is mandatory.

5. Dropping The final drop date is April 8, 2011 before 4:59PM. Please speak to me if you are getting behind. Also talk to me before making a final decision to drop.

6. Videos. As we progress, I will post videos on my youtube cite ”ProfessorElvisZap” about important topics in the course. Watching videos is never a substitution for class attendance. They only supplement the material.

7. A homework schedule will be developed shortly if it is not attached.

8. Just as in other aspects of human endeavors, mathematical excellence is achieved through practice. Even when you attempt homework and can’t work it, you are learning. An old acquaintance of mine recently sent me a guitar lesson book that he wrote. I just started working on it. As of today, I have not achieved the excellence required in the first lesson. However, I am better today than I was yesterday, and if I continue to practice I will be better still tomorrow. Much to my family’s chagrin, I sound terrible now. By the end of the semester, I hope to be better.
You too can get better by working mathematics programs. You may need to work several hundred problems before you get good. You may be like me and need to work the same problem three or four times before you understand. This is natural and to be expected. Don’t give up early, and afford this class an ample amount of time for study. If you do so, you and I will get along great!

9. This syllabus and any other supplementary materials will be found on my classes website:

http://www.southalabama.edu/mathstat/personal_pages/carter/classes.html

I plan to duplicate the material on my personal site

http://www.jscottcarter.com

If there is a desire, I will create a course blog there, as well.