Math 240 Syllabus

LINEAR ALGEBRA
(subject to change)

Professor

(Prefer to be called) Professor J
Phone 437-2769 (really emergencies)
Office 2219 Bell T.
jorge.garcia@csuci.edu

Office Hours Rarely Appointments, on request.
11:00 → 12:00 on Thursday Exclusively for you
10:00 → 11:00 on Thursday For someone else and you

Required Text Elementary Linear Algebra, by Anton Rorres.

Grading Policy

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
<th>Points</th>
<th>Your Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm 1</td>
<td>20</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Midterm 2</td>
<td>20</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>25</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Homework</td>
<td>20</td>
<td>075</td>
<td></td>
</tr>
<tr>
<td>Quizzes</td>
<td>15</td>
<td>050</td>
<td></td>
</tr>
</tbody>
</table>

Roughly, this will be the scaling:

<table>
<thead>
<tr>
<th>grade</th>
<th>A+</th>
<th>A-</th>
<th>B+</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>cut-off</td>
<td>98%</td>
<td>93%</td>
<td>90%</td>
<td>88%</td>
<td>83%</td>
<td>80%</td>
<td>78%</td>
<td>73%</td>
</tr>
</tbody>
</table>

Additional information:

- Course web site http://analog.csuci.edu/~jorge/linear (soon)

- No cell phones allowed in class, absolutely. If the a cell phone rings in class, I assume it is an emergency and consequently you must leave the class and go and attend that emergency, do not return, come back next class.

- Each time you turn a late-homework do as follows: Write at the top: 2 points less per late day. Example: If homework was due on Thursday and you turn it on Tuesday write at the top 6 points less. A late-homework will not be accepted if not such mark is done by you. You have the right to turn two late-homeworks or less, each one of such must contain the mark described above.

- When writing a homework, you must do as in the following example
  
  - Peter Smith (written at the upper right corner)
  - Section 13.2 (underlined twice, under the name)
  - (Each problem number must be circled)

Problem 13.2.1
• In the exam never come to me and ask me: *Am I right?*, neither ask me for a definition. If you must ask something in the exam do it in extremely low voice when you come to me, usually there are no questions.

• The question: *I do not know what homework is due* does not stand, the rule is: **WHATEVER WE COVERED ON Tuesday, Thursday IS DUE Thursday, Tuesday RESPECTIVELY.**

• The statement: *I do not want to go to the board because I do not know how to do it* is not valid, you came to this class because you are going to learn how to do it, and you and everybody else in class has the capability of solving a problem, I shall help you.

• If you do not come to class, do not expect a good grade in the exam. If you do not dedicate at least 10 hours per week to linear algebra never expect an A. If you do not work in teams, do not pretend to say you are a social or cooperative or participating student in class.

• Whenever you are told to work on your own in the class, you must not look at me or the others but work on your own.

• The exam may contain some problems I did not cover in class, they may be taken from the first examples in the book about the sections we are covering. **You are really supposed to read the book in this class.**

• At the end of the semester do not come and say: *I think I deserve a better grade even if I did not do some homeworks*, as I said, homeworks count 25 percent and quizzes count 15 percent, I hope percentages are cleared. The words: *I think I deserve to pass this class because I work hard and I put all my effort*, are a fantasy, the scale for grading is written above.

• One hour before each exam, you are not allowed to interrupt the professor.

• **My students do not have exam conflicts**, and if they do, they tell me during the first two weeks of the semester.

• I will not go and pray to you: *Could you give your homework assignment to me please? You are responsible of turning them in.*

• **What do I need to do to get an F or D in this class?** Study linear algebra at home just one hour a day. Do the homework assignments the night before it is due. Do not form teams to solve homework assignments, discuss with yourself and your inner-self only. Never participate in class. Sleep while professor is talking. Come late quite often. Ask your professor to tell you what and when is the quiz coming, that will guarantee you do not have to study, only when there are quizzes or exams. Never have new or different ideas, that is against the good moral, if you want to obtain an F. Stop going to the tutor center for help. But more important, if you really want that D or F, always question the knowledge before it comes to you. By the way, also, do not come to office hours, that will discover you are dedicating out-of-class time to linear algebra.
**Course Description** Linear Algebra deals with vector spaces, structures and operations. In this class you are suppose to learn how to handle matrices, systems of equations, linear functions, change basis, decompose a matrix, and apply the theory to other branches of mathematics as well as solving problems in physics, economics and real life problems. If you have not seen the move *The Matrix*, go and see it, you will appreciate a big matrix of 1000 by 2 million size. A matrix is an array of numbers in a rectangular form. With certain operations defined on these matrices we can simplify operations among systems of equations, and via the determinant of a matrix we can solve those systems.

Inverses matrices can be obtained via some software, such as Mathematika, Matlab, Maple, and others. If you want you can obtain the Maple software student version for a reduced amount, it is very helpful in our class. Check http://www.maplesoft.com for further details. Matlab is cheaper and it has advantages, economicals mainly. Mathematika is a powerful graphing tool that you can obtain too.

Besides handling matrices the previous software packages can do many other things too such as eigen-vectors, eigen-spaces, eigen-values.

Finally we studied linear operators and some transformations will be studied, this is of special importance for those computer science people.

**Read the textbook.** You are suppose to read the book, even if you do not understand, read and come and tell me what and why you did not understood.

**Homework:** The homework problems will be assigned in class or via e-mail. Exams will be based on HW. I will grade randomly some of the problems you turn in, and this is the rule, do not come later and tell me: *It is not fair I got 6 points out 9 if I missed just one problem out of 10*, you may have missed the one I was going to grade. Homework may be placed under my office door up until 5 p.m. the day it is collected. After 5 p.m., homework will not be accepted unless is marked late.

**Miscellaneous Points:** To encourage you to develop good learning practices, you may earn points (including extra credit points) for various activities. This may include a project, participation, etc.

Make-up exams will be given only under extreme circumstances: students who must miss class should arrange to take the exam ahead of time. Travel plans *do not* constitute a legitimate reason for rescheduling an exam. Any rescheduling of exams is at the discretion of the instructor: plan ahead, and communicate.

Get tutoring, tutoring center is located next to Java cafeteria in the Bell Tower. Check periodically the course page. Come to my office and discuss your problems, email me or schedule an appointment, do not be shy to ask silly questions. I love to explain in my oce hours those basic things that people are afraid to ask in class.

**Academic Honesty.** Work on exams must be your own. At all other times, I strongly encourage you to collaborate. If someone helps you, give her or him the credit, and write your own explanation. Each member of every group is responsible for his or her own understanding of the work submitted.
All work that students submit as their own work must, in fact, be their own work. For example, if a paper presents ideas of others, it must clearly indicate the source. Word-for-word language taken from other sources books, papers, web sites, people, etc. must be placed in quotation marks and the source identified. Likewise, work on tests and exams must be the students own work, not copied or taken from other students work, and students must comply with instructions regarding use of books, notes, and other materials.

In accordance with the CSU Channel Islands policy on academic dishonesty, students in this course who submit the work of others as their own (plagiarize), cheat on tests and examinations, help other students cheat or plagiarize, or commit other acts of academic dishonesty will receive appropriate academic penalties, up to and including failing the course.

Papers with plagiarized ideas or language will be graded F and must be rewritten with proper use of quotations and referencing. The grade of F will remain the recorded grade on that assignment.

Plagiarism or cheating on tests and exams will result in an F on the test or exam, very likely resulting in a lower or possibly a failing final grade in the course.

To complete course requirements, students must retake the test or exam during the instructors scheduled oce hours.

In cases where the cheating or plagiarism was premeditated or planned, students may receive an F for the course.