Syllabus Math 344–Linear Algebra Section 01 Fall 2015

Instructor

Andrew Incognito, PhD aincogni@coastal.edu ww2.coastal.edu/aincogni

Office Hours:

Wall 124H, 349-2513 MWF 10:00-11:00 and MTWF 2:00-3:00

Text

Introductory Linear Algebra, An Applied First Course, eighth edition by Kolman and Hill.

Course Webpage

The website for the course ww2.coastal.edu/aincogni. The webpage will be updated regularly and include assignments, announcements, the course syllabus, a course calendar and links to video resources. The calendar is intended to give a rough estimate of daily topics in addition to holidays and exam dates.

Course Objectives

In this course, students will learn about matrices, vector spaces and linear transformations. You will be able to use matrices to find solutions of systems of linear equations and also to work with matrices to find inverses, determinants, eigenvalues and eigenvectors. You will also be able to identify vector spaces, subspaces and their bases and apply these concepts to both matrices and linear transformations.

Exams

There will be three tests and a cumulative final exam, currently scheduled for the following dates:

- Test 1–Friday, September 25
- Test 2–Monday, October 26
- Test 3–Friday, November 20
- Final Exam–Friday, December 4 from 11:00 am to 1:00 pm

Test dates are subject to change. Your lowest test score will be replaced by your final exam score (assuming that it is better).

Homework

Homework problems will be assigned regularly and a subset of the assigned problems will be graded. You are encouraged to discuss homework problems with classmates. However, you are expected to write up your solutions on your own. Your lowest homework score will be dropped.

Quizzes

We will have an announced quiz in class roughly once per week. Your lowest quiz score will be dropped.

Grade Policy

Your course grade will be weighted as follows.

Three Tests	15% each
Quizzes	10%
Homework	10%
Final Exam	35%

Grade Scale

A:	90-100	B+:	86-89	B:	80-85	C+:	76-79
C:	70-75	D+:	66-69	D:	60-65	F:	0-59

Class Attendance

The attendance policy for this course is the same as the attendance policy outlined in the university catalog.

Note that absences, whether excused or not, do not absolve you from your responsibility to keep informed concerning all assignments made. Please get the notes from any class missed from another student. All assignments will be posted on the course web page.

Important Dates

Monday, September 7 Labor Day Friday, October 9 Student Holiday

Thursday, October 22 Last day to drop with a grade of "W"

November 23 -27 Thanksgiving Break Wednesday, December 2 Last day of class

Friday, December 4 Final Exam 11:00 am –1:00 pm

Students with Disabilities

Any student with a documented disability needing academic adjustments or accommodations is requested to speak with me during the first week of class. All discussions will remain confidential.

Statement of Student Conduct

Coastal Carolina University is an academic community that expects the highest standards of honesty, integrity and personal responsibility. Members of this community are accountable for their actions and reporting the inappropriate action of others and are committed to creating an atmosphere of mutual respect and trust.

Student Learning Outcomes

The successful student in Linear Algebra will be able to:

- 1. use matrices to solve linear systems of equations;
- 2. perform arithmetic operations on matrices;
- 3. compute the inverse, determinant, trace and transpose of a matrix;
- 4. perform operations on vectors in n-dimensions;
- 5. identify and prove basic results of vector spaces and subspaces;
- 6. determine whether a set of vectors is a basis for a vector space;
- 7. determine the rank of a matrix:
- 8. compute eigenvalues and eigenvectors and find eigenspaces;
- 9. diagonalize a matrix;
- 10. identify linear transformations between vector spaces;
- 11. find the kernel of a linear transformation;
- 12. find the matrix of a linear transformation.