Sp2015Texas A & M-Commerce
Math 335.002 – Linear Algebra

This is the syllabus for Math 335-Linear Algebra, Section 002 for Spring 2015. Please read it carefully. You will be responsible for all information given in the syllabus, and for any modification to it that may be announced in class.

Instructor: Dr. Yelin Ou
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Office hours: MW: 11:00am-12:00 pm,   MR: 1:30pm-3:0pm.

Class time and room: TR: 11:00am-12:15pm, BA 346.

Text & Course Material: *Linear Algebra and its Applications*, by David C. Lay, 4th Edition. Tentatively, chapters $1 - 4$ of the text will be covered, and some topics from chapters $5 - 7$ will also be covered if time permitted.

Course Description: Vector spaces; linear transformations; matrices; determinants; systems of linear equations; equivalence relations on matrices; characteristic vectors, operators. **Prerequisite**: Math 331.

Learning Outcomes: Upon successful completion of this course, the students will be able to:
1. Understand and interpret the concepts of a vector space, linear combinations, bases, subspace and dimensions;
2. Use matrix theory (operations of matrices, inverse, eigenvectors, row reduced echelon forms) to solve systems of linear equations;
3. Understand linear transformations: the definition, the representations by matrices, relation to system of linear equations, one-to-one, and onto linear transformations interpreted in the language of system of linear equations.
4. Recognize the standard form, vector form and the matrix form of a system of linear equations; understand the solution structure and solve a system by using Row Reduced Echelon Form of the augmented matrix, Cramer's Rule, and the inverse of the coefficient matrix.

5. Understand the definition and the properties of determinants, use row operations and a calculator to evaluate a determinant and use Cramer's Rule to solve systems of linear equations.

Instruction: Instruction will include lecture, demonstration and models, and some group work, based on time available.

Computer & supplies: A graphing calculator (e.g.,TI 83) and Using of Mathematica (a computer algebra system available in computers in Math Lab located in 328 Binnon Hall) is helpful but not required for this course.

Attendance: Attendance will be checked and it is your responsibility to sign the daily roll sheet. It is your benefit to attend the class.

Tests: There will be two midterms and a final exam for the course. The tentative schedules for the exams are:
    Test 1: Feb. 26, Thursday 11:00am-12:15pm.
    Test 2: April 16, Thursday 11:00am-12:15pm.
Final exam: The comprehensive final exam is scheduled on
                        May 12, Tuesday, 10:30am-12:30pm.
No makeup exam will be given unless you have verifiable evidence showing an acceptable reason to have to miss a test and, in that case, you must notify the instructor before the test or in the earliest possible time.

Homework & Quizzes: Homework will be assigned during each class period. You are strongly recommended to work out homework assignments on a regular basis since **No one can learn mathematics without doing it**! The assigned homework will be collected for grading every Tuesday before the lecture begins. Some homework problems or their similar forms will be used as test questions. Pop quizzes are expected from time to time.

Course grades: The course grade consists of
                    Homework & Quizzes: 15%
                    Two Tests :   50%
                    Final exam: 35%.
The letter grades will be assigned using the following scale:
 A: 90-100%   B: 80-89%   C: 70-79%   D: 60-69%   F: 0-59%

Withdrawal Policy: Concerning the deadlines and consequences of withdrawals please check on:
http://www.tamuc.edu/admissions/registrar/academicCalendars/

Academic Integrity: I have a **NO TOLERENCE** policy for cheating and if you are caught cheating you will fail this course. Cheating in this course includes the following:

- Giving or receiving answers during an exam or quiz.
- Viewing the exam or quiz answers of nearby classmates.
- Having notes/practice work available during quizzes or tests.
- Possession or access to test items before the test is given.
- Deception in getting an excused absence to obtain the undeserved opportunity to make-up work.
- Use of cell phones or text messaging technology during exams or quizzes. You may not use the calculator on your cell phones.
- Improper citations in written works, or using another person's ideas and words as your own without giving proper credit.
- **Any** method, no matter how well rationalized or accepted, which improves a person's grade by any means other than study and skillful performances on exams and/or other assignments.

Students found guilty of an act of academic dishonesty in this course will be subject to receiving an "F" in this course.

Classroom Behavior: "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment" (See Student's Guidebook).

The information for students with disability: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: Office of Student Disability Resources and Services, Texas A&M University-Commerce, Gee Library, Room 132, Phone (903) 886-5150 or (903) 886-5835,
Fax (903) 468-8148, email: StudentDisabilityServices@tamuc.edu

Getting help :   A better way to learn math is to keep progress and leave no gaps in one's study. So please get help as soon as you need it and do not wait until it is too late. You are welcome to come to me or go to Math Skills Center located in **Bin 328** where you can find free tutors for help. The tutoring hours of Math Skills Center for the current semester are:

MW: 8am – 8pm, TR: 8am – 6pm, F: 8am – noon.