MAT343. Applied Linear Algebra, SLN 72080
Syllabus, Fall 2013

Texts:

Instructor: Wenbo Tang Office: PSA 837
Phone: x5-1476 Email: Wenbo.Tang@asu.edu (preferred)
Meeting Schedule: TTh 1:30-2:45PM, Tempe Discovery 350. Lab: ECA221 (T/Th, time dependent on your choice)
Office hours: TTh 12:00-1:15pm and by appointment, at PSA 837
Class webpage: On Blackboard

Contents and prerequisites:
Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. MAT266/271 with C or better.

Calculators:
Allowed as long as it doesn’t automatically compute advanced operations in linear algebra (matrix inverse, for example)

Lab Sessions
There are six lab sessions over the semester, dates noted in this syllabus. In addition to ECA, you should be able to access MATLAB from your home computer as client through citrix (https://citrix.asu.edu). Please attend the lab sessions regularly as lab homework comprise a significant portion of your final grade. If needed, you can get help with the labs in MC2 (PSA 303) or from the lab instructor. Four regular class sessions will be dismissed to make up time for these labs.

Homework assignments and grading:
Weekly homework assignments are given every Tuesday and are, unless otherwise specified, due the following Tuesday before class. There will be 10 problems in each assignment and expect to spend 3-6 hours on each assignment. Collaboration for homework by teams of size at most three is encouraged but not required. Each member must submit his/her own copy of homework. Please make sure that you have understood all contents submitted and expect in-class presentation of your solutions. Please write as clearly as possible to allow proper consideration of your credit. Late homework only accepted with legitimate reason and within one week of the due date. Also, late homework is subject to a 40% mark down.

Break down of your final grade: Homework: 20%; Lab: 20%; Two Midterms: 40% combined; final: 20%. In-class presentation: 0.1% bonus for each.

Grading scales: >97 A+, 93-96.9 A, 90-92.9 A-, 85-89.9 B+, 80-84.9 B, 75-79.9 B-, 70-74.9 C+, 65-69.9 C, <65 D.

How to survive/thrive
In this course, beyond practice on the procedures, we emphasize conceptual understanding of why dealing applied problems with linear algebra and how. As such, attending every class and complete homework problems regularly are essential to survival. In addition, the best
way to be successful is to actively engage in in-class discussions. Forming study groups and use of office hours are strongly encouraged.

**Final Exam make up policies**
The final exam schedule listed in the Schedule of Classes will be strictly followed. Except to resolve those situations described below, no changes may be made in this schedule without prior approval of the Dean of the college in which the course is offered. Under this schedule, if a conflict occurs, or a student has more than three exams on one day, the instructors may be consulted about an individual schedule adjustment. If necessary, the matter may be pursued further with the appropriate dean(s). This procedure applies to conflicts among any combination of Downtown Phoenix campus, Tempe campus, Polytechnic campus, West campus, and/or off campus class.

Make-up exams will NOT be given for reasons of a non-refundable airline tickets, vacation plans, work schedules, weddings, family reunions, and other such activities. Students should consult the final exam schedule before making end-of-semester travel plans.

**Weekly schedule (subject to change closer to start of semester):**
- Aug. 22  Intro, 1.1, 1.2
- Aug. 27, 29  1.3, 1.4 HW1 assigned
- Sept. 3, 5  1.4, 1.5, HW1 due, HW2 assigned
- Sept. 10, 12  2.1, 2.2, Review, Lab 1. HW2 due, HW3 assigned
- Sept. 17, 19  T1 in class (Ch1-2), 3.1, 3.2 HW3 due
- Sept. 24, 26  3.2 Lab 2. HW4 assigned. Dismissed on Feb 14 for lab
- Oct. 1, 3  3.3, 3.4, 3.5 HW4 due, HW5 assigned
- Oct. 8, 10  3.6 Lab 3. HW5 due, HW6 assigned. Dismissed on Feb 28 for lab
- Oct. 15, 17  Fall Break
- Oct. 22, 24  4.1, 4.2, 4.3 HW6 due, HW7 assigned
- Oct. 29, 31  Review Dismissed on Mar 21. Lab 4. HW7 due, T2 assigned (Ch3-4)
- Nov. 5, 7  5.1, 5.2, 5.3 T2 due, HW8 assigned.
- Nov. 12, 14  5.4, 5.5 Lab 5. HW8 due, HW9 assigned
- Nov. 19, 21  5.6, 6.1. HW9 due, HW10 assigned
- Nov. 26, 28  6.3 HW10 due, HW11 assigned. Dismissed on Apr 16 for lab
- Dec. 3, 5  6.5 Lab 8. HW11 due
- Dec. 10, 12  Review, Final (comprehensive) TBD

**ACADEMIC DISHONESTY!**
In the “Student Academic Integrity Policy” manual, ASU defines “Plagiarism’ [as] using another’s words, ideas, materials or work without properly acknowledging and documenting the source. Students are responsible for knowing the rules governing the use of another’s work or materials and for acknowledging and documenting the source appropriately.” You can find this definition at:
http://www.asu.edu/studentaffairs/studentlife/judicial/academic_integrity.htm#definitions

Academic dishonesty, including inappropriate collaboration, will not be tolerated. There are severe sanctions for cheating, plagiarizing and any other form of dishonesty.