MAT 260 Linear Algebra I

Spring 2013

Instructor: Dr. Haiping Yuan
Phone: 717-815-6654
Lecture: Mon, Wed, Fri: 10:00am-10:50am,
Office Hours: Mon., Wed., Fri.: 12:00pm-1:00pm, Mon., Wed.: 2:00pm-3:00pm, Tues.: by appointment.
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Material Covered

Chapter 1: 1.1, 1.2.
Chapter 2: 2.1-2.4.
Chapter 3: 3.1-3.3.
Chapter 4: 4.1-4.6.
Chapter 6: 6.1-6.4.
Chapter 7: 7.1-7.2, 7.3(optional).

Topics covered: vectors, vector spaces, linear independence and dimension, linear transformations, matrices, determinants, systems of linear equations, eigenvalues and eigenvectors.

This course is more computation-oriented and is focused on how to apply the theory to compute some linear invariants which are widely used in engineering, chemistry, physics, biology, and social sciences. The theoretical part of the subject will be covered in MAT360, Linear Algebra II.

Course Requirements

Homework: Homework will be assigned weekly and you can work on your own or with a classmate as a group (turning in one copy for the whole group with the name of each in the group written on the homework). Homework should represent the efforts of the group not just one member of the group. Each homework assignment will be collected in the last class of a week. NO late homework will be accepted. I’ll drop the two lowest homework assignments at the end of the semester. Because of that, late homework will not be accepted for any reason including sickness, except under exceptional circumstances such as a long time illness or a regularly scheduled athletic event for student athletes.

Exams: There will be two in-class midterm exams. Exam problems will be mostly based on the examples discussed in class and the problems on homework. As a result, it is strongly encouraged that you attend every class and take detailed notes. Your notes should be accurate. In particular, all material written on board should be faithfully and legibly recorded in your notes. One particularly effective study suggestion is
to develop the habit of rewriting the notes for a class before in the class. If you should need to miss a class, please ensure that you get the notes from another student in the class.

**Final:** There will be a cumulative final exam at the end of the semester. But the majority of the final will be on the material that haven’t been tested after the second midterm.

**Grading Policy:**

- Midterms: 20% each.
- Homework: 30%.
- Final: 30%.

An overall score will be computed at the end of the semester by adding the above scores. The average of the overall scores of the class will be set up as a B or higher depending on how good the average is. About the top 30% people will receive an A.

**Calculator:** You should have a scientific calculator (one that can handle trig functions, exponentials and logs) and may use it on homework and in class. You may NOT use a calculator on quizzes and exams.

**Absence Policy:** Attending class is not mandatory. However you are responsible for whatever happens in classes.

**Academic Honesty:** I take very seriously any violation of academic honesty. Cheating on any exam and homework will result in failure for the course and a letter placed in your academic life. Giving someone a help on an exam is just as bad as receiving help and both parties will be penalized.

* This syllabus is subject to change.