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**Course Objective**

“Linear Algebra” is a big subject, both ancient and modern. From humble grade school word problems to the secret search algorithms of Google to the esoteric and vaunted invariant subspace problem, linear algebra is a pillar of the complete mathematical education. One could (and people do) spend a lifetime studying our subject; we have ten weeks. Thus, our aim in this first course is to understand the basic principles underlying the greater field. Along the way we’ll do a few computations, see the solutions of linear systems of equations in their natural abstract algebraic light, and look eagerly ahead toward the bigger questions and their often powerful answers. It’s a beautiful story, read on.

**Methodology**

Our high ambitions will necessitate various vehicles for progress.

1. **Discussion.** Class time will be spent discussing and working on mathematics. Your engagement in the discourse is vital. You may be called upon to offer your thoughts or work a problem at your desk. You will get out of class only what you put in.

2. **Homework.** Homework is suggested nightly out of the book. Each Friday, a custom made assignment will come out to be done over the weekend and turned in on Tuesday in class. These weekly homework sets will reflect what you have been working on out of the book leading up to that Friday, so it is important to give each suggested book problem due attention in order to prepare for your weekend assignment. “Feast or famine” is not the proper course here. Consistent and careful consideration of the homework is the surest path to success.

3. **Examination.** There will be two midterms and a final exam at the end of the quarter.

4. **Query.** Two students will be drawn randomly for a daily query at the beginning of each class.
Office Hours

Our in-class discussions will likely be the proverbial “tip of the iceberg.” To facilitate sustained mathematical discussion, there will be additional times to interact throughout the week.

- M 2:10-3:00 (library fishbowls).
- T 10:10-11:00.
- R 2:10-3:00 (library fishbowls).
- F 10:10-11:00.
- By email and by appointment.

Exam Dates

1. Midterms:
   - Exam 1 Thursday, October 13th
   - Exam 2 Tuesday, November 15th

2. Final Exam:
   - 206-01: Friday, December 16th, 10:10am-1:00pm
   - 206-02: Monday, December 12th, 1:10pm-4:00pm
   - 206-03: Friday, December 16th, 1:10pm-4:00pm

Grading

Course grades will be calculated as follows:

- Query (5%)
- Homework (20%)
- Midterm Exam (2 x 20%)
- Final Exam (35%)

Academic Integrity

It is my opinion that there is hardly any human act more satisfying or important than the sharing of knowledge. I therefore consider the classroom and the university at large to be hallowed ground, well deserving of all the humility and respect that we would afford our other most sacred places.

Please refer to the University’s policy on cheating and plagiarism found in the Campus Administration Manual, Section 684.

In short: be sensible, respectful and mindful of the integrity of the system we are all so lucky to share.