

MATH 343
JASON GROUT, 300 TMCB, 422-3681
SPRING 2006

1. COURSE INFORMATION

This class will be a rigorous course in mathematics. You will be expected not only to master computations, but also to demonstrate understanding of linear algebra by composing abstract proofs. Developing proficiency in critical thinking and logical inference is a major goal of the course. Thoughtful reading of the text and handout material as well as solving problems is a key to understanding the subject. Reading a section *before* it is covered can greatly assist you in understanding new topics. Not all material can be presented in class, in which case you are responsible to learn it through their own reading. Linear algebra is a vital and compelling field of human endeavor with applications in many, many fields. I hope you enjoy the course.

2. INSTRUCTOR AND TEXT

The instructor is Jason Grout, 300 TMCB, 422-3681, grout@math.byu.edu. The office hours will be determined and announced. If you cannot come during an office hour, please make an appointment.

The course website is at

<http://math.byu.edu/~grout/math343>

Class announcements and changes to this syllabus are sent out via email. It is your responsibility to make sure that I have your current email address and that you are able to receive messages daily Monday through Friday. Failure to do so could prevent you from receiving important information for which you will be accountable.

The text for the course is: Leon. 2006. *Linear Algebra With Applications: 7th Edition*.

3. PREPARATION TIME

Adequately prepared students should expect to spend three hours of work outside of class for each hour inside of class. This adds up to about 24 hours per week for Math 343 in the

spring term. Much more time than this may be required to achieve excellence.

4. COURSEWORK

4.1. **Homework.** Homework will generally be due at the beginning of class the class period after it is assigned. Late homework will be accepted for up to two class periods after the due date for half credit. Exceptions may be granted in exceptional circumstances if arrangements are made prior to the due date. These policies may change if they are being abused. Please, please work on homework the day we cover it in class so that questions may be addressed during the next class period.

The homework for each section is divided into two parts: A and B. For each section, we will first do part A, which generally includes the easier problems. Then we will explore the subject more deeply with part B. This approach helps you review the material as you see it twice and also provides a more gentle introduction to the theory. Most students have liked this approach, even though it may seem to cover material more quickly in the beginning.

For written work, **your solutions should contain enough explanation so that one of your classmates would be able to easily understand what you have done.** Generally, it is inadequate to merely write down a final answer. You are encouraged to study and work together on homework assignments, but you must submit your own assignment. Everything you turn in should be in your own words and you should thoroughly understand everything you write down.

The principle of neatness will help you avoid common, careless mistakes that anyone can make. Staple all sheets together. Keep the problems in order and visually separate problems. Clearly mark your final answers and the problem numbers.

Because a large part of your learning will come from working problems, I strongly

encourage you to finish all homework assignments.

4.2. Reading Quizzes. An online reading quiz for each section is also due. Questions on this quiz may include asking you to summarize the main points of the section. These quizzes will generally be due when the part B homework for the section is due. These reading quizzes are open-book and open-note (but not open-neighbor). These policies may change during the semester.

4.3. Quizzes. Quizzes will be given in class. Only correct solutions will receive credit. An incorrect solution may be redone for partial credit.

When redoing a problem:

- (1) You have one week from the time the quiz is given to submit corrections.
- (2) Use a clean sheet of paper for your correction and staple your original quiz behind your correction sheet. Do not change anything on your original quiz. If you lose your original quiz, print out another one from the website and do all the problems.
- (3) Before reworking a problem, describe in paragraph form the errors you made and what you will do to ensure that you don't make that kind of error again.
- (4) You may only use your instructor, your book, and your personal class notes to help you correct quiz problems. You may not work with other students or seek any other outside help in correcting quiz problems.

5. TESTS AND FINAL EXAM

There will be three tests throughout the semester. The final exam will be comprehensive. You may not use calculators, books, or notes on the tests or the final.

You have the option of replacing one of your test grades with your final exam grade. In order to do this, you must:

- (1) Have a homework average above 70%;
- (2) Have a quiz average above 70%;
- (3) On every test, correct every problem for which you didn't receive full credit;
- (4) Complete an extra set of assigned problems (given at the end of the term)

covering material on the exam you want to replace.

6. GRADING

The grading percentages are:

Homework	20%
Reading Quizzes	10%
Quizzes	20%
Tests	30%
Final Exam	20%

7. MATH LAB (159 TMCB)

The Math Lab (159 TMCB) is one of your most valuable out-of-class resources. When you go, it is often helpful to find another student working on the same assignment and work with them.

The Math Lab hours are generally Monday 8am–4pm, Tuesday through Thursday 8am–10pm (closed for devotionals), Friday 8am–5pm, and Saturday 9am–1pm. Exceptions to these hours should be posted at the Math Lab.

8. UNIVERSITY POLICIES

8.1. Honor Code. All students are expected to adhere to the honor code, including dress and grooming standards. You are expected to be completely honest in all your dealings. The Honor Code website at <http://campuslife.byu.edu/honorcode/> provides details of what the honor code entails.

8.2. Preventing Sexual Harassment. BYU's policy against sexual harassment extends not only to employees of the university, but to students as well. If you encounter sexual harassment, gender-based discrimination, or other inappropriate behavior, please talk to your professor, contact the Equal Employment Office at 422-5895, or contact the Honor Code Office at 422-2847.

8.3. Students with Disabilities. BYU is committed to providing reasonable accommodation to qualified persons with disabilities. If you have any disability that may adversely affect your success in this course, please contact the University Accessibility Center at 422-2767. Services deemed appropriate will be coordinated with the student and instructor by that office.