

**MATH 18, ELEMENTARY LINEAR ALGEBRA
SPRING 2003**

CATALOG DESCRIPTION: Elementary Linear Algebra (3:3:0). Matrices and vectors; transformations; systems of linear equations; convex sets and linear programming.

PREREQUISITE: Two (2) units of high school mathematics.

TEXT: *Finite Mathematics: An Applied Approach* 8th Edition, by Mizrahi and Sullivan, published by John Wiley and Sons, Inc.

INSTRUCTOR: Minde Artman

OFFICE: 115 Whitmore

PHONE: 863-9671

EMAIL: artman@math.psu.edu *This is the best method of contact. I will respond within 48 non-weekend hours to email.*

WEBSITE: <http://www.math.psu.edu/artman/math26.html>

OFFICE HOURS: Monday, Friday 2:30-3:20, Thursday 1:25- 2:15, also by appointment.

HOMEWORK SESSION: Wednesday 1:30-3:00pm *This session is for you to work on homework. I will be available if you have questions. You may also work with other students in your class during this time.*

EXAMINATIONS: Two 75-minute in class examinations will be given during the semester and a comprehensive final examination will be given during the final examination period. No books or notes may be used on the examinations. I will announce the dates for the exams two weeks prior to the date, and the dates will be updated on my website. You can expect the first exam in mid to late February and the second exam in early April.

MAKEUP EXAMINATIONS: Students who have a valid verifiable reason, such as illness, are permitted to schedule a makeup examination with no penalty. **Students who do not have a valid reason for missing the exam, such as forgetting the date, or other personal business such as travel, weddings, graduations, fraternity or sorority functions are also permitted to schedule a makeup, but 20 points will be deducted from their score.** You must see your instructor within 48 hours of the regular exam and a makeup time will be scheduled.

FINAL EXAMINATION: The final exam will be given as scheduled during finals week, May 5th-9th. The final exam schedule is prepared by the Office of the Registrar. **UNTIL YOU KNOW WHEN YOUR FINALS ARE SCHEDULED, YOU SHOULD NOT MAKE ARRANGMENTS TO LEAVE UNIVERSITY PARK UNTIL AFTER SATURDAY, MAY 10.** When the final exam schedule is released, you will be given information on filing for conflict exams if you have two exams at the same time, or three or more exams during a 15 hour period. These are the only valid reasons for filing for a conflict exam. The conflict filing period is from . Students who have a direct conflict but have not filed during this period will be given a 30-point penalty on the conflict exam. See *Policies and Rules, Student Guide to the University*, Policy 44–25. Students who miss the final exam will be allowed to take a makeup final. If the student had a valid, verifiable reason, such as illness, no penalty will be imposed; if the student did not have a valid reason, a 30 point penalty will be imposed. Students who have taken the original final exam are not permitted to take a makeup final exam.

DEFERRED GRADES: Students who are unable to complete the course because of illness or emergency may be granted a deferred grade, which allows the student to complete the course within 6 weeks of the following semester. Note that deferred grades are limited to those students who can verify a valid reason for not being able to take the final exam. See *Policies and Rules, Student Guide to the University*, Policy 48–40.

COURSE GRADES: Grades will be assigned exclusively on the basis of 450 points, distributed as follows:

Examination I: 100 points
Examination II: 100 points
Quizzes: 50 points
Projects: 50 points
Final Examination: 150 points

Final course grades will be assigned as follows:

405-450	A	330-344	C+
390-404	A-	315-329	C
375-389	B+	270-314	D
360-374	B	0-269	F
345-359	B-		

There is no "extra credit" work. Furthermore, individual exams, quizzes or total points will not be "curved".

HOW TO GET THE MOST OUT OF CLASS

LECTURE: We have two days of lecture for nearly every section that we cover in the book. The first day I will cover most of the material from that section. The first day of a section will be fast paced. To fill in any gaps from lecture, I expect you to thoroughly read the text from that section before the next lecture. In the second lecture we will go over confusing material and work on some more advanced problems.

Note Taking Tips:

- ★ Come to class prepared for lecture. Arrive on time and do not leave early.
- ★ Listen more than you write. If you copied properties and definitions into your notes when you read through the section before class, you will have more time to listen to what your instructor is explaining.
- ★ Don't copy all the steps to every example. Go back and fill in the blanks later. Maybe work it out with a partner so you can look at notes together and fill in blanks. This lets you listen more to how your instructor explains the problem.
- ★ Note any places that your instructor says is "really important", "a common mistake", "a good test question", etc.
- ★ Mark places that you do not understand. Go back to them later, and read about it, talk to a friend about it, or see your instructor.

Organization: I recommend you keep your notes neat and organized (a spiral notebook works well). You should label each lecture with the section and the date. You should also keep another notebook to organize all the handouts from the class, quizzes and exams (3-ring binder or just one with pockets).

HOMEWORK: After the first lecture on a new section you should work through the example problems in the text. You should also write down two questions you still need answered in class.

In the second lecture of a section, I will assign homework problems. The homework assignments will be posted on my website, which will be updated on Friday mornings. There will be word problems in each of these homework sets. You should plan to take quite a while to study these assignments each night. Homework will not be collected and will not count toward your course grade.

Organization: In a homework notebook (spiral notebook), I suggest you record your homework in this way. Leave the first couple pages blank to build a table of contents. Take notes on the text and work out example problems. Allow several pages for homework drills assigned the second day of a section.

The goals of homework are:

- ★ To practice problems modeled in lecture.
- ★ To check your understanding of the procedures and concepts.
- ★ To be prepared for the next class period with questions and other contributions, such as writing problems on the board.

QUIZZES: An in class quiz will be given 12 times throughout the semester. I will announce the quiz days two periods before I give it, or about one week in advance. Questions will be similar to homework problems and each quiz will be worth 5 points. I will assign partial credit so be sure to show all work. There will be occasional challenge problems on a quiz allowing you to earn one extra point. The top ten quiz scores will count toward your final grade. Since the two lowest quiz scores will be dropped, there will be *no makeup quizzes*. There will be a total of 50 quiz points.

The goals of quizzes are:

- ★ For me to give written comments on your methods of problem solving.
- ★ To encourage you to keep up with homework assignments.
- ★ To learn how to budget time in a situation similar to exams.

PROJECTS: There will be two projects this semester that are each worth 25 points. They will consist of a set of problems or exercises and a series of questions about the exercises. You will be expected to write in complete, grammatically correct sentences about the mathematics you learned in that project. You will need to think creatively and draw conclusions that I might not lecture on before the project is due. You may work with other students on the projects, but you should turn in independent and unique papers.

ACADEMIC INTEGRITY STATEMENT: “Academic dishonesty includes, but is not limited to, cheating, plagiarizing,...facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students...A student charged with academic dishonesty will be given oral or written notice of the charge by the instructor. If students believe that they have been falsely accused, they should seek redress through informal discussions with the instructor, the department head, dean or campus executive officer. If the instructor believes that the infraction is sufficiently serious to warrant the referral of the case to Judicial Affairs, or if the instructor will award a final grade of *F* in the course because of the infraction, the student and instructor will be afforded formal due process procedures.” From *Policies and Rules, Student Guide to the University*, Policy 49–20.