

**MATH 18, ELEMENTARY LINEAR ALGEBRA  
SPRING 2004**

**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.

*Supplemental Material*, by Minde Artman, download at:  
[www.math.psu.edu/artman/suppmat18.pdf](http://www.math.psu.edu/artman/suppmat18.pdf)

**INSTRUCTOR:** Minde Artman

**OFFICE:** 115 Whitmore

**PHONE:** 863-9671

**EMAIL:** [artman@math.psu.edu](mailto: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/math18.html>

**OFFICE HOURS:**

Monday	1:00-2:00	Thursday	12:30-2:00
Wednesday	10:30-11:30	Friday	1:00-2:00

*Also by appointment. Please use this time, I have scheduled it for you!*

**EXAMINATIONS:** There will be three exams given in class 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. The first exam will be split over two days and be worth 100 points. The second and third exams will be given on one day and each will be worth 50 points. The days of the exams are.

Exam I: February 9 and 11, 2004

Exam II: March 5, 2004

**(Friday before Spring Break)**

Exam III: April 7, 2004

**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 may be 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 to discuss a makeup exam time. Students who have taken the original exam are not permitted to take a makeup exam.

**FINAL EXAMINATION:** The final exam will be given as scheduled during finals week, May 3-7. 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 8.** 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. 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 may 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:	50 points
Examination III:	50 points
Quizzes:	50 points
Project:	50 points
Final Examination:	150 points

Final course grades will be assigned as follows:

420-450	A	345-359	C+
405-419	A-	315-344	C
390-404	B+	270-314	D
375-389	B	0-269	F
360-374	B-		

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

## CLASSROOM ETIQUETTE

**PARTICIPATION:** Please raise your hand when you have a question, or an answer to a question. Do not talk to others while I am lecturing. It distracts me and your classmates. When I give you time to work with others, please do so. Take that opportunity to meet your classmates.

**ENTERING or EXITING:** You should arrive at class on time and stay until the period ends. If you must enter or exit the classroom during lecture, do so quietly with disrupting others or blocking their view of the board. If you must leave class early, I appreciate when I am told before class. I often pause lecture to allow you to work on problems. Those times would be appropriate times to leave the room for a drink, etc. You do not need to ask for permission.

**FOOD:** I do not mind you snacking in class or bringing a soft drink to class. Please do not bring loud, crunchy food to class or a meal. The noise or the smell of that food is distracting.

**CELL PHONES:** I do not want to *see* a cell phone in the classroom any time before, during or after class. If you must bring one with you use it in the hallway and ***be sure to turn it off before you enter the classroom.*** You should not use a cell phone as your clock during class, especially during quizzes or exams.

## HOW TO GET THE MOST OUT OF CLASS

**LECTURE:** We will cover a section of the book nearly every lecture. Read through the section the night before and copy definitions into your notes. If you do not make the time to read through the section, take a few minutes before the lecture starts to skim through the section so that you are familiar with the topic for that lecture. Please see my website for *Note Taking Tips*.

**HOMEWORK:** After the lecture you should work out any problems from your notes that you did not finish in class, then you should fully work out the examples in the text of the section we covered. Reading the textbook or supplemental material is a very important way to learn the material. After that review, you are ready to start the suggested homework problems assigned in class often a full list of the problems will need to be looked up on my website.

You should be sure to work at least one problem from each part of the exercises. If you are having trouble with a concept you should work extra problems, even if they are not listed as a suggested problem. If you feel you need more practice than what the exercises offer try the chapter review or chapter test printed at the end of each chapter in your textbook, or ask me for other suggestions. Homework will not be collected and will not count toward your course grade.

**QUIZZES:** An in class quiz will be given approximately weekly. I will vary the day on which it is given but it will most often be on *Wednesdays*. More than 10 quizzes will be given throughout the semester. 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. The top ten quiz scores will count toward your final grade. Since the lowest quiz scores will not be added into your grade, there will be ***no quizzes given out of class.*** There will be a total of 50 quiz points.

**PROJECT:** There will be one project this semester worth 50 points. The project 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. This project is due **April 14, 2004**. You will be given approximately two weeks to work on the project.

**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...” From *Policies and Rules, Student Guide to the University*, Policy 49–20.