

## MATH 107-03: Linear Methods

CRN: 29212

Instructor: R. Patrick Vernon

Class Times: MWF 11:00am - 11:50am

Class Location: Ohlendorf 225

Office Hours: MWF 12:00pm-1:00pm

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### Description

In this course, students will familiarize themselves with the basic properties and concepts of Linear Methods. The course is divided into four general components: Matrix Algebra, Markov Processes, Linear Programming and Game Theory. It is crucial to understand each component before moving to the next, as each new section builds on existing material. I plan on covering, in the following order, Chapters 2, 8, 3, 4, and 9.

### Prerequisites

The prerequisites for this course are a strong background in high school algebra and geometry.

### Calculators

A calculator with matrix capabilities is recommended. I recommend a TI-83 or TI-83+ for this course. If you have a different model calculator, I will do my best to help you find the advanced functions, but can make no guarantees. Some problems will require you to use the calculator to derive answers; on others, you should be able to show your work and formulas, but may still use your calculator to check your answer. You will know beforehand which is which.

### Grades

Assignments will be graded as soon as possible, and grades will be made accessible to students. Each student's final grade will be based on the following percentages:

- Quiz Average: 10%
- 3 Tests: 18% each
- Homework: 8%
- Project: 8%
- Final Exam: 20%

Your final numerical grade will be rounded to the nearest whole number and your letter grade will be given by the following chart:

0-59	60-62	63-66	67-69	70-72	73-76	77-79	80-82	83-85	87-89	90-92	93-100
F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A

**Attendance**

I will take attendance at the beginning of each class for my own records. Attendance is not directly calculated into your overall grade. However, students are expected to know all material covered during lecture, even if it is not covered in the textbook. If you are unable to attend a class session, let me know beforehand. If you are absent for a quiz, be prepared to bring a doctor's note in order to take a makeup quiz. If attendance is particularly low on a given day, I reserve the right to give a pop quiz.

**Homework and Quizzes**

Homework will be graded based on completion and attempt made at each problem. Additionally, each quiz is heavily based on the homework from recent class sessions. Therefore, it is recommended that you keep up with your homework. Quizzes will be graded out of a possible ten points and will be given approximately each Tuesday. I will drop each student's lowest quiz grade.

**Tests and Final Exam**

Each test will consist of all material covered since the previous test. The tests will be the same format as the quizzes, though longer and more detailed. The Final Exam will be comprehensive, but with more emphasis on material covered after the third test.

**Grading**

Your grade on a quiz or test answer is not merely a result of being able to produce the correct answer. An objective of this course is that you be able to demonstrate an understanding of your process in obtaining the correct answer. Therefore, you must show your work in order to receive full credit on a problem.

**Assistance**

I am available during my office hours to answer any questions you may have. You are more than welcome to stop by my office during these hours without prior notice, but I can ensure less time conflicts if you notify me via email in advance. If you are unable to meet with me during my office hours, please let me know and we can set up a time which is appropriate for both of us.

In addition, the Math Support Center provides a tutor for this course, whom you can contact to set up an appointment. If you are having any problems, I highly recommend seeking assistance early, before your difficulties become insurmountable.

**This Syllabus**

I will attempt to adhere to the syllabus as closely as possible. However, the syllabus is subject to change, and the most recent copy may be found online at my Rhodes webpage:

**<http://faculty.rhodes.edu/vernonp/>**

I will make every effort to notify students of any significant changes to the syllabus.

**The Honor Code**

I take the Rhodes Honor Code seriously, and it is diligently enforced in my classes. All graded work must comply with the Rhodes Honor Code. If the Honor Council finds that a student has committed an Honor Code violation in my class, the student will receive no credit for that assignment. I reserve the right to fail anyone convicted of an honor code violation by the Honor Council.