

**VIRGINIA STATE UNIVERSITY**  
**SCHOOL OF ENGINEERING, SCIENCE AND TECHNOLOGY**  
**DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE**  
**COURSE SYLLABUS: Spring 2009**  
**MATH 122: Finite Mathematics (3 Semester Hours)**

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**Instructor:**  
**Office Number:**  
**Phone Number:**  
**E-mail address:**

**Office Hours:**

Monday	Tuesday	Wednesday	Thursday	Friday

**Course Description:**

Solving systems of linear equations and inequalities, Introduction to Matrices and Linear Programming, Mathematics of Finance, Sets, Counting and Probability.

**Prerequisite:** MATH 120

**Textbook:**

**S. T. Tan;** College Mathematics for the Managerial, Life, and Social Sciences, 7<sup>th</sup> Edition, Thomson Brooks/Cole Publishing Company, 2008

**Graphing calculator:** TI-83, TI-83 Plus or higher

**Learning outcomes, activities, and evaluation procedures:**

**KNOWLEDGE**

The student will learn concepts of:

- Linear equations and linear functions.
- The solution of systems of Linear Equations.
- The solution of systems of Linear Inequalities.
- Mathematics of Finance.
- Sets and Set Counting procedures.
- Basic probability problems.

**Evaluation Strategy:** Homework assignments, in class Quizzes and /or tests.

**SKILLS**

The student will develop the skill to

- Solve systems of Linear Equations graphically, using the Gauss-Jordan method and using matrices.
- Solve systems of Linear Inequalities geometrically.
- Solve Mathematics of Finance Problems.
- Learn Sets and Set Counting procedures.
- Solve basic probability problems.

**Evaluation Strategy:** Homework assignments, in class Quizzes and / or tests.

## ABILITIES

The students will be able to:

- Solve and graph linear equations and linear functions.
- Solve systems of Linear Equations graphically, using the Gauss-Jordan method and using matrices.
- Solve systems of Linear Inequalities geometrically.
- Solve Mathematics of Finance Problems.
- Learn Sets and Set Counting procedures.
- Solve basic probability problems.

**Evaluation Strategy:** Homework assignments, in class Quizzes and /or tests.

## GRADING PROCEDURE

There will be a midterm and a comprehensive final examination. Besides, instructor may assign homework, may give quizzes and /or tests or any other credit works. The grade will be determined by the following criteria:

<b>BEFORE MIDTERM</b>		<b>AFTER MIDTERM</b>	
Homework/Quizzes	100	(Midterm Average out of 100) X 3	300
Exams 1 and 2	200	Homework/Quizzes	100
Midterm Exam	100	Exams 3 and 4	200
		Final Exam	200
<b>Midterm Total</b>	<b>400</b>	<b>Final Total</b>	<b>800</b>

**Midterm Average – Your total Midterm points divided by 4.**

**Final Average – Your total Final points divided by 8.**

There will be 4 major exams during the semester, 2 prior to midterm and 2 after midterm.

- Exam I: Approximately during the week of Feb. 9th
- Exam II: Approximately during the week of March 2nd
- Exam III: Approximately during the week of April 6th
- Exam IV: Approximately during the week of April 27th

There will be a departmental midterm and final exam.

**Midterm Examination period:** March 10<sup>th</sup>-14<sup>th</sup>

**Final Examination Period:** May 6<sup>th</sup> -9<sup>th</sup>

**NO MAKE - UP EXAMS EXCEPT FOR UNIVERSITY APPROVED EXCUSES**

## GENERAL INFORMATION:

1. Attendance at all classes is recommended. Absences will not, however, be held against any student when assigning final grades (exception: VSU policy). The student should realize that excessive absence ordinarily results in a lower grade.

2. **Your first step for help in the course is to see your instructor during office hours.** In addition to utilizing office hours, tutoring will be available in the Department of Mathematics and Computer Science tutoring lab and in the Office of Academic Support Center.
  
4. **Calculators may be used during all exams. (TI 83 or higher is required)**

### BIBLIOGRAPHY / READING LIST

- Sullivan, Michael, Algebra and Trigonometry. Prentice-Hall, 2002.
- Goldstein, Larry and Schneider, Finite Mathematics and Its Applications, Prentice-Hall, 2004.
- Lial, Margaret and Hungerford, Thomas, Mathematics with Applications, Finite Version, Addison Wesley Higher Education, 2003.
- Finite Mathematics Study Card, Addison Wesley Higher Education, 2006

### Course Outline

Topics	Sections from the textbook
Mathematics of Finance	5.1 through 5.3
Review of Straight Lines/Linear Functions	1.1 through 1.4
Linear Programming: Geometric Approach	3.1 through 3.3
Systems of Linear Equations and Matrices	2.1 through 2.6
Sets and Counting	6.1 through 6.4
Probability (as time permits)	7.1 through 7.4

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#### Key Dates/University Calendar

**Monday Jan 26:** Last day to add/drop a course

**Wednesday Feb 11<sup>th</sup>:** Assessment day

**March 6<sup>th</sup>:** Founder's day

**Tuesday-Friday March 10-14:** Midterm Examination period

**Sunday-Sunday March 15-22:** Spring break (No classes)

**Monday-Friday March 23-April 17<sup>th</sup>:** Early registration for Fall 2009

**Friday March 27:** Last day to withdraw from class(s) (grade registered as W)

**Monday May 4th:** University classes end

**Tuesday May 5th:** University reading day

**Wed-Sat April 6-9:** Final Exam period

The **MATH TUTORING LAB** is located in room 7S Hunter McDaniel Bldg (Basement).