

Math 11: Finite Math – Winter 2018

	Course	Days	Time
	01274 Math 11.25	MW	4:00 – 6:15 PM
			Room: FOR4
Office Hours: W: 10am - 1pm			email: zapataelizabeth@deanza.edu
Location: TBD			

Prerequisite: Math 114 Intermediate Algebra with grade of C or better; or equivalent placement
Course Description: Application of linear equations, sets, matrices, linear programming, mathematics of finance and probability to real-life problems. Emphasis on the understanding of the modeling process, and how mathematics is used in real-world applications.

Course Objectives:

1. Develop, throughout the course as applicable, systematic problem solving methods.
2. Investigate linear and exponential models.
3. Investigate methods of solving linear systems using matrices; write a system of linear equations to solve applied problems; solve a system of linear equations using Gauss-Jordan elimination and interpret the result; find the inverse of a square matrix and use the inverse to solve a system of linear equations.
4. Formulate and solve linear programming models in at least three variables.
5. Develop the concepts of the time value of money, and compute compound interest, future and present values and periodic payments. Use these concepts to solve applied problems in finance including simple interest, annuities, sinking funds, and amortization.
6. Examine sets, counting techniques and their applications. Find unions, intersections and complements of sets. Use Venn diagrams to solve problems.
7. Create probability models and investigate their applications. Determine the probability of a specified event and find the conditional probability of an event.
8. Investigate stochastic processes and Markov chains.
9. Utilize technology as an aid in exploring, analyzing, understanding and solving problems.
10. Investigate, throughout the course as applicable, how mathematics is used as a human activity around the world.

Required Materials:

Applied Finite Mathematics new 3rd ed. 2016, by R. Sekhon/R. Bloom

- FREE pdf file online <http://deanza.edu/faculty/bloomroberta/AppliedFiniteMath-3ed-Current.pdf>

- FREE Answers to most odd problems can be found here <http://deanza.edu/faculty/bloomroberta/math11.html>
- Print version of textbook can be purchased through Campus Bookstore if desired (~ \$35)
- Scientific or graphing calculator
- TI-83+ or TI-84+ graphing calculator, paper, graph paper, pencils and eraser are required daily. Note, you may not use a cell phone calculator or borrow calculators on any quizzes or exams. Be prepared!

Homework:

Homework will be assigned each class meeting and will be collected at the start of class on the due date. Late homework will not be accepted for credit. Each section of the homework will be graded out of 10 points; 5 points for completion/effort and 5 point based on the accuracy of randomly selected problems. **You must show work to get any credit; only providing answers will give you a score of zero on a homework assignment.** In-class assignments/worksheets may be assigned and will go into the homework category.

For every hour of classtime, you should expect to spend a minimum of 2-4 hours for homework. You must be willing to put in time to get positive results!

Quizzes:

Unannounced or announced quizzes and calculator activities will occur throughout the semester to test your skills on the concepts we are covering in class. Quizzes will be closed notes. **NO make-up quizzes** will be given, and a missed quiz earns a zero. I will drop your lowest quiz score

Exams:

I will give three, 1 hour in class exams during the quarter. One page of notes will be allowed on exams. These exams will be completed in class and will contain the materials covered in the lectures and book. **If you are unable to take an exam for any reason, a makeup exam will not be given.** A missed midterm exam earns a zero. I will replace your lowest midterm exam with the percentage of your final exam, provided it is higher. Each midterm is weighted equally, as 15% of your final grade.

Final Exam:

In-Class Activities:

Attendance and Participation:

Grading:

Approximate Grading Scheme

Homework: 15%

Quizzes: 15%

3 Midterm Exams: 45% (15% each)

Final Exam: 25%

Approximate Scale	Grading	
90% and above		A
80 – 89.9%		B
70 – 79.9%		C
60 – 69.9%		D
Below 60%		F

Accessing Grades and Class Materials:

All grades will be recorded on Canvas

Cell Phones:

I will not allow cell phones as calculators.

Your cell phone should be stowed in your pack during class time.

If you have children, or other potential emergency situations, please keep your phone on vibrate and take the call outside of the classroom.

Tutorial Help:

There are two tutorial centers on the DeAnza campus. S-43 provides drop-in tutoring for Math and Science, and L-47 for everything else. Individual tutoring is available. Please visit the tutor centers early in the semester to determine what tutoring is available for you. Talk to the tutors and other students.

Other Accommodations:

If you need accommodations for whatever reason, please contact the Educational Diagnostic Center(LCW-110, 408-864-8839) or Disability Student Services (SCS-141, 408-864-8753) to arrange for in-class and/or testing accommodations.

Tentative Course Schedule

	Monday	Wednesday
January	8	10
	Intro, Syllabus, Sections 1.1 - 1.3	Sections 1.4 - 1.5
	15: No Class	17
		Sections 2.1 - 2.3
	22	24
	Homework Chapter 1 due, Sections 2.4 - 2.6	Sections 3.1 - 3.2
	29	31
	Homework Chapter 2 due, Review	Homework 3.1, 3.2 due Exam 1
February	5	7
	Sections 4.1 - 4.3	Sections 5.1 - 5.3
	12	14
	Homework Chapter 4 due, Sections 5.4, 5.5	Sections 6.1 - 6.3, Review
	19: No Class	21
		Homework Chapter 5 due, Exam 2
	26	28
	Sections 6.4 - 6.6	Sections 7.5 - 7.7
March	5	7
	Homework Chapter 6 due, Sections 8.1 - 8.4	Sections 8.5, 9.1, 9.2
	12	14
	Homework Chapter 7 due, Sections 9.3, 9.4, 10.1	Sections 10.2 - 10.4
	19	21
	Homework Chapter 8 and 9 due, Review	Homework Chapter 10 due, Exam 3
	26: No Class	28: Final Exam: 4pm - 6pm

Student Learning Outcome(s):

*Identify, evaluate, and utilize appropriate linear and probability optimization models and communicate results.

*Compare, evaluate, judge, make informed decisions, and communicate results about various financial opportunities by applying the mathematical concepts and principles of the time value of money.