Finite Mathematics
Math – D011 - 63
De Anza College – Winter 2016

Time & Location: TTh 6:30 – 8:45 pm, G-10

Instructor: Mary Halloran email: halloranmary@fhda.edu

Office Hours: TTh 3:00 – 4:00 S43 (Math Tutoring Center)

Text/Materials: Applied Finite Mathematics, R. S. Sekhon & TI-83/84/86 or equivalent calculator.

Prerequisite: Qualifying score on the Math Placement Test within the past calendar year; or MATH 114 or equivalent with a grade of C or better.

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.

Student Learning Objectives:

A) Identify, evaluate, and utilize appropriate linear and probability optimization models and communicate results.
B) 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.

Course Objectives:

A) Develop, throughout the course as applicable, systematic problem solving methods
B) Investigate linear and exponential models
C) 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.
D) Formulate and solve linear programming models in at least three variables.
E) 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.
F) Examine sets, counting techniques and their applications. Find unions, intersections and complements of sets. Use Venn diagrams to solve problems.
G) Create probability models and investigate their applications. Determine the probability of a specified event and find the conditional probability of an event.
H) Investigate stochastic processes and Markov chains
I) Utilize technology as an aid in exploring, analyzing, understanding and solving problems
J) Investigate, throughout the course as applicable, how mathematics is used as a human activity around the world.

Grading Policy:

- Quizzes 10%
- Exams (2) 50% (25% each)
- Final Exam 40%

If opt to successfully present 5 homework exercises on the board will get the following grading policy

- Quizzes 10%
- Exams (2) 50% (25% each)
- Homework Presentation 10%
- Final Exam 30%

Attendance/Classwork

You are expected to attend every class. If you cannot make it for any reason, I recommend you contact a fellow classmate to get any notes you may have missed. You are expected to have access to your textbook every class as well as your graphing calculator. I will often give you problems out of your textbook to work on either individually or with a small group so make sure you have lots of extra paper and pencils.

Homework

Will be assigned but not collected or graded. Homework assignments represent the student's opportunity to learn what was taught, by practicing both mechanical skills and problem-solving techniques. The student is expected to do, and is responsible for, all problems associated with the sections of the text covered each class meeting.

Quizzes

Quizzes will be given every week (with the exception of exam days). They will be based on the homework exercises and class examples. I will be dropping your lowest quiz score.

Exams

There will be two in-class exams during the quarter. These exams will emphasize, but not be limited to, the material, including proper mathematical notation, covered in class. No make up exams will be given, even if the absence is excused. It is difficult to find an extra room and time to give a make up exam.

Final Exam:

The final exam will be comprehensive and will take place on **Thursday, June 23rd**, 6-8 pm.

If you cannot take the final exam at the scheduled time, please do not enroll in this class. I cannot make accommodations for different final exam times.

Approximate guidelines for final letter grade (no curving nor extra credit)

98 – 100%	A+	92 - 97.99%	A	90 – 91.99	A-
88 – 89.99	B+	82 – 87.99	B	80 – 81.99	B-
78 – 79.99	C+	70 – 77.99	C	60 – 69.99	D
Below 60%	F				

Grade Changes: Grade changes are made only for clerical errors. I will not change grades for any other reason.

Adding/Dropping As per school policy, if a student is absent the first week of class, I am required to drop this student from the course. After the second week of class, students will not be automatically dropped for nonattendance. However, I reserve the right to drop students for nonattenandance if a student is absent for more than three consecutive class periods. I stress though, it is the student's responsibility to officially withdraw from this course. I suggest you pay strict attention to the drop dates listed in your student handbook, schedule of classes, and the Portal.

Academic Honesty: Studies have shown that working in groups can improve performance in math class, so I encourage you to form your own study groups. You must, however, be able to explain the work and solve problems on your own and ultimately, you will be taking your own tests. Cheating on tests, copying someone else's work, having someone do your work for you, or letting someone copy your work is not allowed. If you are dishonest, you will be reported to the dean of student affairs and other consequences may occur due to the severity of the problem. Please review other consequences and definitions of cheating, plagiarism, and other academic dishonesty at https://www.deanza.edu/studenthandbook/

Disruptive Behavior: De Anza College will enforce all policies and procedures set forth in the *Standards of Student Conduct* (see catalog). Disruptive behavior can include, but is not limited to, the following: verbal abuse, physical abuse or threats, willful damage to person or college property, inordinate demands for time and attention, harassment, discrimination, or disruption in the classroom. Disruptive behavior will not be tolerated because it interferes with the educational process or deprives others of the right to learn, the right to service, and/or the right to feel safe.

Any student disrupting a class may be asked to leave that class for the day. Failure to vacate the premises will result in Campus Security immediately being called to remove the student from the class. Administrative follow-up with PSME Division Dean and/or Dean of Student Development will result.

Accommodations To obtain disability-related accommodations, students must contact the Disability Support Services Department (DSS) as early as possible in the quarter. The link for DSS is https://www.deanza.edu/dss/.

If you already have an accommodation notification from DSS, please contact me privately to discuss your needs.

Religious Holidays: If you observe a religious holiday during the quarter, please inform me by the second week of classes so that I can make any necessary adjustments to the calendar.

IMPORTANT: PLEASE READ THE NEXT PARAGRAPHs:

- There is no reason to have a cell phone, smart phone, text messaging device, personal listening device (iPod, MP 3 player, etc) or pager in operation in class. Make sure the device is in an OFF mode when you enter class and put away (in a pocket, purse, back-pack, etc.) when you enter class so as not to interrupt class if called or texted. If you have an emergency situation where you are expecting a call, please let me know before the class starts.
- Once you enter class you are expected to stay in your seat until class is dismissed or a ten minute break is given. Obviously, this also holds true during time allotted for a quiz, exam or final. You are not allowed to pop in and out of class to deal with cell phone or

messaging issues, smoke a cigarette or use the bathroom. Please take care of all the above before you come to class during class break. If you have a physical problem where you might have to use the bathroom during class, please let me know before class starts.

- No eating in the classroom. Crinkling wrappers, chewing noises and smells are distracting.

<u>This Syllabus is tentative and subject to change. Any changes will be announced in class.</u>