



Math Analysis/Business
Rio Salado College | MAT217 31607 Fall 2018
Instructor: Steven Felling
Start Date: 09/17/2018
End Date: 05/31/2019
Credits: 3.0



Instructor: Steven Felling B.S.,E.E., MEd

Phone: 480-706-7900 ext 70556

Email: sfelling@tempeunion.org

Website: www.mrfelling.com

Office Hours: 3:15pm-4:30pm

Location: Room C - 114

Official Course Description

An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions.

Official Course Prerequisites

- Prerequisites: Grade of "C" or better in MAT212 or MAT213.

Official Course Competencies

1. Solve multivariable optimization problems with and without constraints. (I, II)
2. Solve linear programming problems using Duality Theory. (II)
3. Solve linear systems with two and three equations using various matrix methods. Use technology to solve application problems. (III)
4. Solve counting problems using various counting techniques. (IV)
5. Solve probability applications. (V, VI)
6. Distinguish between continuous and discrete variables. (VI)
7. Find probabilities for normal random variables by using the standard normal distribution. (VI)
8. Describe the normal distribution and its characteristics. (VI)

Time Requirement

You will need to dedicate significant time to this college course. For each credit hour, plan to spend at least two hours a week on homework in addition to class presentation time.

Required Course Materials

Title	Edition	Author	ISBN
Graphing Calculator TI-83 or TI-84			
Finite Mathematics: An Applied Approach	11th Edition	Sullivan, Michael	978047045

This dual enrollment college course is intended for high school students at the junior and senior level

Standards And Expectations

Course Requirements

Policy:

1. Expect a daily assignment
2. Maintain a class notebook
 - a. Classroom examples - new concepts
 - b. Written homework examples
 - c. Returned quizzes and group work
3. Follow the due dates for assignments as listed in each chapter calendar
4. A calculator is required (Recommended TI 83/84)
5. You are responsible for any material missed due to absences.
6. Do not be late.
7. Extra help - Daily before and after school

Grading Standards:

Cumulative point system
Standard Grading Scale:

- | | |
|---|-----------|
| A | 90-100% |
| B | 80-89% |
| C | 70-79% |
| D | 60-69% |
| F | Below 60% |

Quarter grades will be comprised approximately from:

Tests/Quizzes.....80%

Homework/Group Work.....20%

Each quarter grade is worth 40% of the semester grade and the final exam counts as the remaining 20% of the semester grade.

Attendance Standards:

Regular attendance is important. Students are allowed 6 absences and may be dropped from the course for excessive absences.

Late/Missed Work Policy:

All assigned work must be completed by the designated due dates as stated in the chapter assignment calendar.

All tests will be taken as scheduled unless PRIOR arrangements have been made (contact can be made in person or via email)

Equipment Use Policies:

You may be assigned a computer for classroom use. You are to only use the computer in the designated web sites. You are not to add or make any changes to the computer. Failure to abide by these policies will cause you to lose your computer privileges.

Calendar:

Week #	Assignment
1	Unit 1 - Linear Equations
2	Unit 2 - Linear Systems and Matrices
3	Unit 2 - continued
4	Unit 3 - Linear Programming
5	Unit 4 - Simplex Method
6	Unit 4 - continued
7	Unit 5 - Sets and Counting Techniques
8	Unit 5 - continued

9	Unit 6 - Probability
	School Break
10	Unit 6 - continued
11	Unit 7 - Statistics
12	Unit 7 - continued
13	Review
14	Review
15	Additional Topic - Regression Models
16	Review
17	Semester Final Exam, Unit 9 - Trigonometry Review
18	Unit 9 (Additional Topic) - Trigonometry Review
19	Unit 10 - Limits and Continuity
	School Break
20	Unit 10 - Limits and Continuity, Definition of Derivative
21	Unit 10 - continued
22	Unit 11 - Derivatives (Computing derivatives, Chain Rule, Implicit Differentiation)
23	Unit 11 - continued
24	Unit 11 - continue
25	Unit 12 - Applications of Derivatives (Curve Sketching, Optimization, Related Rates)
26	Unit 12 - continued
27	Unit 12 - continued

28	Unit 13 - Trig Limits/Derivatives, L'Hopital's Rule
	School Break
29	Unit 14 - Integrals (Definite/Indefinite, Computing Integrals, by Substitution/Parts, Area, Differential Equations)
30	Unit 14 - continued
31	Unit 14 - continue
32	Unit 15 (Additional Topic) - Volumes of Solids of Revolution
33	Unit 16 - Applications of Integrals (Average Value, Probability Density Functions)
34	Unit 16 - continued
35	Unit 17 - Multivariable Calculus (3D coordinates, multivariate functions, partial derivatives, local extrema, optimization using Lagrange Multipliers)
36	Unit 17 - continued, Review
37	Review, Semester Final Exam

Extra Credit Policy:

Extra Credit is not available for this class. It is the belief of Rio Salado College that all work done for a class should receive regular credit and is more than sufficient to assess the understanding of material presented in the course.

Plagiarism Warning:

Plagiarism includes, but is not limited to, the use of paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling or sharing of term papers or other academic materials. Information gathered from the Internet and not properly identified is also considered plagiarism. We expect every student to produce his/her original, independent work. Any student whose work indicates a violation of the MCCCDC Academic Misconduct Policy (including cheating and plagiarism) can expect sanctions as specified in the college catalog

(2.3.11), or online at the following

site:http://www.maricopa.edu/publicstewardship/governance/adminregs/students/2_3.php

Rio Salado College uses software that uncovers plagiarism from student to student and other data sources on the Internet. If a student is found to have plagiarized content, grade consequences will be applied in accordance with departmental policies.

Civility Policy:

The faculty of Rio Salado place a high value on the importance of general ethical standards of academic behavior and expect that communication between students and instructors or among students shall maintain the level of formality and mutual respect appropriate to any college teaching/learning situation. Language or behavior that is rude, abusive, profane, disruptive, or threatening will not be tolerated. Activity of this type is Academic Misconduct as defined in MCCCDC Policy AR 2.3.11. Students engaging in such behavior will be removed from the course with a failing grade. Additional sanctions may be applied pursuant to AR 2.3.11.

Refund Policy:

Refunds are not automatic. Students who drop courses within the refund period are eligible for a reimbursement of appropriate tuition and fees. Please see the refund policy online for deadlines and details.

Disability Statement:

Rio Salado College will make reasonable accommodations for persons with documented disabilities. Notify Disability Services and Resources and your instructor of any special needs. Contact Disability Services and Resources at (480) 517-8562.

Tuition Assistance is available to students enrolled in a Rio Salado College dual enrollment course who demonstrate financial need. Please refer to: <http://www.riosalado.edu/dual/>

The student is responsible for the information outlined in the syllabus. The student is also responsible for knowing the Rio Salado College policies in the college catalog and the student handbook. Please refer to: <http://www.riosalado.edu/dual/>

Course content and syllabus may vary from the course calendar listed above in order to meet the needs of the particular group in this course section.

Student Solution Center

Rio Salado College is dedicated to a quality learning experience and has provided the [Student Solution Center](#) webpage as a resource for students to raise issues to our attention. We look forward to the

opportunity to provide an equitable solution for all involved parties. For grading or instructional issues, students should first contact their faculty member(s) in accordance with the [Instructional Grievance Process](#).

For non-instructional complaints, students may contact the Conduct & Community Standards team by telephone at 480-517-8749 or 480-517-8152, or email at communitystandards@riosalado.edu. Students may also contact their [state regulatory agency](#); the [Arizona SARA Council](#); and/or [the Higher Learning Commission](#) to escalate their concerns.