



**SCOTTSDALE
COMMUNITY COLLEGE**

A MARICOPA COMMUNITY COLLEGE

Scottsdale Community College (SCC) credits the diverse Indigenous people still connected to the land on which we gather. Our college resides on the tribal territory of the Salt River Pima-Maricopa Indian Community (SRP-MIC). SRP-MIC is a federally recognized nation - one of 22 Arizona Indigenous nations and one of 574 across the United States. Attached to this physical space is a painful history of forced removal and the resulting intentional genocide of its Indigenous people. We remain appreciative of our ability to teach, learn and serve in a space of such importance and reverence.

SCC acknowledges the land on which we are situated today as the traditional land and home, established by Executive Order on June 14, 1879, of two distinct tribal nations: the Onk Akimel O'odham (Pima) and the Xalychidom Piipaash (Maricopa) people. We take this opportunity to thank the original caretakers of this land. We offer our respect to their Elders and to all O'odham and Piipaash people of the past, present and future.

Course Information

Semester & Year:	Spring 2023
Course Title:	Mathematical Analysis for Business
Course Prefix & Number:	MAT 217
Section Number:	33669
Credit Hours:	3
Start Date:	January 17 th , 2023
End Date:	March 10 th , 2023

Course Format

The course format for this course is On Your Time Online. This is an 8-week course that runs from 1/17/2023 until 3/10/2023.

Instructor Information

Instructor: Gabriel Tarr
Email: gabriel.tarr@scottsdalecc.edu
Office Phone: 480-425-6746
Office Location: CM 419
Office Hours: Monday: 3:30 PM – 4:45 PM (CM 419 or [Zoom](#))
Wednesday: 2:00 PM – 3:15 PM (CM 419 or [Zoom](#))
Tuesday and Thursday: 3:00 PM – 4:15 PM (CM 419 or [Zoom](#))

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.

Prerequisites

Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221.

Course Competencies

1. Solve linear systems with two and three equations using various methods, including matrices. (I)
2. Use technology to solve application problems with 3+ variables. (I)
3. Solve linear programming problems using the graphical method. (II)
4. Solve multivariable optimization problems with and without constraints. (II, III)
5. Solve counting problems using various counting techniques. (IV)
6. Define probability using sample spaces, and apply to real-world scenarios. (V, VI)
7. Define basic statistics (measure of central tendency and dispersion), and apply to real-world problems. (V)
8. Describe properties of discrete and continuous probability distributions, and apply to solve real-world problems. (V, VI)
9. Describe the normal distribution and its characteristics. (VI)
10. Find probabilities for normal random variables by using the normal distribution. (VI)

Texts and Course Materials

Required Texts: There is no physical textbook for this class. Due to the topics of the course, the course contains content from several textbooks. You can download and/or print the textbook sections from within each unit section in MOER.

Online Course Management System: This course uses MOER, an Online Course Management System developed by David Lippman and the State of Washington. All of the Online Homework will be accessed through this system. Grades will also be posted through this system. The software is free to use and can be accessed here at moer.maricopa.edu. Failure to enroll in MOER and complete the required syllabus quiz by the due date will result in being withdrawn from the course.

Course ID: 16589

Enrollment Key: 33669

Calculator Requirement: A graphing calculator or graphing calculator app is required for this course. The instructor strongly recommends a TI-83/84. Calculators with QERTY keyboards or those that perform symbolic algebra (such as the TI-92/TI89) are not allowed. You are expected to bring your calculator to each class session. Your cell phone may NOT be used as a calculator on your exams. The SCC Media Center will rent calculators this semester on a first-come basis. Go to the Media Center located in the Information Technology (IT) Building to rent a graphing calculator. Rentals are first-come, first-served and there are limited quantities.

Computer Access, Webcam, Microphone, and Email: You will need regular access to a computer with online capabilities in order to complete online assignments.

You will need access to a webcam and a microphone for the optional virtual office hours through Zoom and if you wish to complete exams through ProctorU.

Course Technologies

View the [Accessibility Statements & Privacy Policies](#) of technologies used in this course.

Maricopa Systems

This course uses key Maricopa systems for course management and communication.

- Canvas Learning Management System
- Student Maricopa Gmail Account
- Maricopa Open Educational Resource Learning System (MOER)

Synchronous Communication Tools

This course implements the use of web conferencing and/or other synchronous course tools.

- Zoom (for optional office hours)

Streaming Media/Audio/Video Tools

This course uses webcasting, lecture capture systems, YouTube, and/or other streaming media services.

- YouTube

Exam Proctoring Tool

ProctorU

ProctorU allows test-takers to take a supervised exam on demand or by appointment. SCC has adopted ProctorU to provide proctoring services for our online courses. All of the exams in this course are proctored, meaning you are supervised through a webcam and screen sharing technology when you take your exam. You may test your computer and webcam at the [ProctorU Testing Your Equipment](#) page. For your reference, read the [System Requirements for ProctorU](#) and [ProctorU Terms of Service](#). ProctorU is a fee-based service with the following [ProctorU Pricing Plan](#).

Please note that ProctorU requires a room scan prior to all testing sessions.

Course Policies

The following are policies specific to this course. Students are also responsible for the college policies included on the [Student Regulations](#) page of the Maricopa Community College District website.

Withdrawing from the Course: If it becomes necessary to withdraw from the course, you should speak with admissions office and fill out the proper forms there. There is a last day to withdraw without an instructor's signature. It is not guaranteed that you will be able to withdraw from the course after this date.

Math/Science Tutor Center: Free online tutoring is available online at the following link. <http://www.scottsdalecc.edu/students/tutoring/math>. You will need to know your

Maricopa gmail account ID and password, and self-enroll in a Canvas course. Details can be found at the link above.

Email and Contacting the Instructor: It is HIGHLY inappropriate for your family members, guardians, private tutors, former teachers, or any other third-party actors to contact your instructor to discuss anything related to your academic standing in this class. The instructor is more than happy to discuss your academic standing with YOU (the student), but emails, messages, and phone calls from third-party actors on your behalf will not receive a response (except in extreme circumstances as determined by the instructor). In certain cases, these third-party actors may be blocked from contacting the instructor.

Be respectful of your classmates and the instructor. Don't be a jerk!

Grading Standards & Practices

Your grade is NOT a commodity; it has not been purchased with your tuition. You have the right to be graded fairly, but you do NOT have the right to any specific grade. Your grade is not a reflection of you as a person. Your grade is not a measurement of effort, it is an evaluation of PERFORMANCE. This means your grade is dependent upon how well you demonstrate your comprehension of the subject through application and completion of the items listed above in the course competencies. Furthermore, it is immoral to reach out to your instructor about the consequences of not receiving a certain grade in the course. Please do not ask for extra credit or “a few extra points” in order to make a certain grade for scholarships, admittance to a certain program, or athletic eligibility. Emails and messages of this nature will be ignored.

Grade Scale

Letter Grade	Points Range
A	90 – 100%
B	80 – 89.9999%
C	70 – 79.9999%
D	50 – 69.9999%
F	0 – 49.9999%

Grade Distribution

Exams: Your exams are meant to test your PERSONAL mathematical aptitude of topics covered prior to each exam in this class, but occasionally you will be required to draw

from your PERSONAL aptitude in topics covered in pre-requisite courses, your real-life experiences, and common sense. You will have 2 hours to complete each exam. There are two options for taking each exam.

Option 1: You may take an exam in-person on the Scottsdale Community College campus. There will be a designated time and location for each exam that will be provided at least one week prior to the exam.

Option 2: You may take an exam through ProctorU. If you choose this option, you agree to follow their rules and procedures for proctored exams.

Midterm Exam (30% of course grade): There will be a midterm exam covering the material for units 1 and 2. Students who opt to take the midterm in-person on the Scottsdale Community College campus will take it on Wednesday February 8th from 5:00 PM to 7:00 PM. Details about the location of the room on campus will be posted on MOER at least one week before the date of the midterm exam.

Final Exam (30% of course grade): There will be a final exam covering the material for units 3 and 4. Students who opt to take the final in-person on the Scottsdale Community College campus will take it on Wednesday March 8th from 5:00 PM to 7:00 PM. Details about the location of the room on campus will be posted on MOER at least one week before the date of the final exam.

Make up exams will only be granted under extreme circumstances. You should meet with your instructor AT LEAST TWO WEEKS BEFORE THE SCHEDULED EXAM to discuss arrangements. This discussion must take place BEFORE the scheduled date of the exam. Failure to adhere to this policy may result in a 0 for the exam and withdrawal from the course.

Homework (20% of course grade): You will be expected to complete regular homework assignments using MOER. Homework will only open after students earn a minimum of 70% on the associated lesson. If something is confusing to you from these videos or the homework, please meet with the instructor during office hours. It will benefit you to write out the homework problems and show your work as if the instructor were grading each assignment by hand. Assignments and due dates will be posted in MOER. It is to your benefit to keep up, however, if you miss a due date, you have 255 late passes that you are able to use with no penalty to your homework grade. Each late pass only extends the due date for 24 hours, so that 255 goes quickly if you fall too far behind.

Quizzes (20% of course grade): Each quiz will be due regularly and will cover recent material from class lessons and homework. Due dates will be posted in MOER. The lowest quiz score will be dropped. I strongly suggest that you treat the quizzes as practice for the exams. These are meant to be a check for how well you comprehend the material learned in the lessons and practiced on the homework.

Response Time

Students can expect a response time of up to 24 hours (not including weekends, holidays, or breaks) for the instructor to respond to messages sent via MOER or email. Students can expect assignments to be graded within 8 calendar days of the assignment's due date.

Attendance Policy

Any student that falls more than one week behind in the course assignments may be withdrawn from the course. Please stay active with the course. A course being online and 8 weeks does not make it easier than an in-person 16-week course.

Instructional Contact Hours (Seat Time)

This is a three (3) credit-hour 8-week course. This is an accelerated course that will require additional time per week than a standard 16-week course. Students should plan to spend at least 18 hours per week learning and practicing course material. Some students may spend much more time per week.

Online Tutoring

SCC's tutors are available online to help with your courses. You may work with an SCC tutor remotely using Google Meet, your phone, or email. Visit the [Tutoring & Learning Centers](#) page for detailed information on the five learning center's hours and procedures.

As much as possible, it is highly recommended that you utilize SCC tutors since they are more familiar with SCC coursework, instructor expectations, and assignments; however, if you need to work with a tutor outside regular hours, online and hybrid students now have access to a 24/7 online tutoring service called Brainfuse. Brainfuse provides online tutoring in a variety of academic subjects. Each student may utilize up to 6 hours of online tutoring through Brainfuse per semester, and has the option of requesting additional time if needed.

To access Brainfuse and begin working with a tutor:

1. Visit the [SCC Online Tutoring Services Through Brainfuse](https://www.scottsdalecc.edu/students/tutoring/online-tutoring) page (https://www.scottsdalecc.edu/students/tutoring/online-tutoring)
2. Click the **Visit a tutor online** button
3. Enter your MEID and password
4. Choose your topic and subject
5. Click the **Connect** button

Please use your time effectively and be prepared with your questions before you connect to a tutor. Tutors and students communicate in real-time so whatever you type, draw, or share on the screen, the tutor sees, and vice versa. You may also want to have screenshots ready if applicable. All Brainfuse sessions are recorded for review later.

Learning Tools and Your Privacy and Security

SCC utilizes a variety of software applications and web-based tools operated by third party vendors to support student learning. To allow student access to the application, site or tool, certain identifiable information may be required to establish a user name or password, and submit work and/or download information from these tools. Inherent with all internet-based tools, there is a risk that individuals assume when electing to use these tools, as they may place information at risk of disclosure.

To use learning tools responsibly, please observe all laws and the Maricopa Community College District [Student Conduct Code](#), such as copyright infringement, plagiarism, harassment or interference with the underlying technical code of the software. As a student using a learning tool, you have certain rights. Any original work that you produce belongs to you as a matter of copyright law. You also have a right to the privacy of your educational records. Your contributions to learning tools constitute an educational record. By using the tool, and not taking other options available to you in this course equivalent to this assignment that would not be posted publicly on the internet, you consent to the collaborative use of this material as well as to the disclosure of it in this course and potentially for the use of future courses.

Students are responsible for the information contained in this syllabus, the Syllabus page in your Canvas course and the **College Policies & Student Services** page found in the First Steps module of your Canvas course. Students will be notified by the instructor of any changes in course requirements or policies.