

## Course Information

- Semester and Year: Fall 2026
- Course Title: Math Analysis for Business
- Course Prefix and Number: MAT217
- Section Number: 18750
- Credit Hours: 3-Credit Hours
- Start Date: August 25, 2026
- End Date: December 18, 2026
- Room Number: CM467
- Meeting Days: Tuesday and Thursday
- Meeting Times: 10:30 AM - 11:45 AM
- Class Format: In-Person (Paper-Based Exams)

## Instructor Information

- Instructor: Omid Ahmadnezhad
- Email: [omid.ahmadnezhad@scottsdalecc.edu](mailto:omid.ahmadnezhad@scottsdalecc.edu)
- E-mail via Canvas: This is the *BEST and FASTEST* way to reach me.
- Office Location: CM467 on Tuesday/Thursday
- Office Hours: Before class or 1:45-2:15 PM. Outside of office hours, I will be available by appointment only.

## Course Description

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

## Prerequisites and/or Corequisites

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.
2. Using technology to solve application problems with 3+ variables
3. Solve linear programming problems using the graphical method.
4. Solve multivariable optimization problems with and without constraints.
5. Solve counting problems using various counting techniques.
6. Define probability using sample spaces and apply to real-world scenarios.
7. Define basic statistics (measure of central tendency and dispersion) and apply to real-world problems.
8. Describe properties of discrete and continuous probability distributions and apply to solve real-world problems. Describe the normal distribution and its characteristics.
9. Find probabilities for normal random variables by using the normal distribution.

## General Education & Institutional Learning Outcomes

General Education provides foundational learning experiences that contribute to academic and career success. It is reflected in [Scottsdale Community College's Institutional Learning Outcomes](#): Arts & Humanities Awareness, Career Readiness, Critical Thinking and Problem Solving, Effective Communication, Information Literacy, and Social Responsibility. Students who take MAT217 (Math Analysis for Business) will develop quantitative reasoning skills to analyze and solve real-world business problems. Through applied mathematical modeling and data analysis, students strengthen critical thinking, information literacy, career readiness, and effective communication skills in a business context.

## Program Learning Outcomes

Credit-bearing courses at Scottsdale Community College can count toward the completion of a degree or certificate program. Each program has Program Learning

Outcomes, which are learning assets that students can claim to have acquired by completing their academic or occupational program at SCC. Program Learning Outcomes can be found on the [Degrees and Certificates page](#) of the SCC Website. For each degree, look under “What You’ll Learn.”

This course is a General Education course that is foundational to many degree programs and a key component of the Arizona General Education Curriculum (AGEC) certificate program.

This course fulfills the Mathematics (MA) requirement for the AGEC.

## Texts and Course Materials

**Textbook:** Given the array of topics covered in this course, content is used from several textbooks. Students can view the textbook sections as a pdf file for free from MOER.

**Online Course Learning Management System:** This course uses [MOER](#) as the learning management system. The syllabus, schedule, announcements, assignments, grades, and course materials will be available through MOER. **Students who do not create a MOER account by the end of the first day of class will be withdrawn** from the course. Login instructions are available in Canvas.

**Calculator:** A graphing calculator is **required** for this course. A TI-83, TI-83+, or TI-84 are recommended. Calculators with QWERTY keyboards or those that do symbolic algebra (such as the TI-92, TI-89, TI-Nspire) are NOT allowed. Your cell phone may NOT be used as a calculator on an exam. Calculators can be rented from the [SCC Media Center](#) inside the Information Technology Services Building IT100 for \$10 each semester (while supplies last).

**Desmos:** I will use the Desmos online application during class demonstrations. The link is <https://www.desmos.com>. You can also download Desmos to your cell phone or iPad and use it during class. However, cell phones cannot be used during Exams.

## 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.

**Technology Responsibility:** Students are expected to have regular access to a computer or device with internet connection to complete online assignments. Students are responsible for completing all assignments on time regardless of any computer issues that may occur. SCC has computers available for student use in the math center and library.

**Course Grading Policy:** Exam scores are final, and extra credit is not offered. Discussions about how the exam is graded will not be discussed via email. Instead, students are encouraged to meet with the instructor to review their exam performance. Final course grades are calculated using the scale listed in the syllabus (rounded to the nearest percent) and are non-negotiable.

**Emergency Documentation:** Students who miss an assignment or exam deadline due to an emergency must contact the instructor as soon as possible (for exams, on or before the missed exam is the expectation) and provide documentation within 2 days. Late penalties may be waived at the instructor's discretion. Submitting fake, altered, or misleading documentation (e.g., a falsified doctor's note) is a form of academic dishonesty. Students who submit falsified documentation will receive a 0 on the exam (resulting in their inability to pass the class) and the incident may be reported under the college academic integrity policy.

**Academic Dishonesty:** If you are caught cheating, you will be awarded zero points for the assignment or exam. If you are caught cheating a second time, you will receive an F for the course. Academic consequences are determined by the faculty and academic administration as outlined in the [MCCCD Student Conduct Code AR 2.5.2](#).

**Classroom and Syllabus:** You should arrive and leave on time, be prepared, mute/put away all electronic devices, be reflective, and actively participate in activities. You are responsible for asking questions and knowing the status of your grade. Class content may vary and/or be amended at any time at the instructor's discretion. This syllabus may also be revised to reflect the needs of the learning community, and changes will be announced in class. You are responsible for any Syllabus changes, even if you were not present the day they were announced. Unauthorized duplication or distribution of course materials is forbidden and may be a breach of copyright law.

**Electronic Devices & Cell Phones:** Please turn off and put away *all* unapproved electronic communication equipment prior to entering the classroom.

**Recording in Classroom or Online:** For privacy, recording of the class or taping of the class both in-person and online is not permitted unless prior approval is granted. This includes taking pictures of or recording peers without their permission.

## Attendance Policy

**Attendance:** Students who do not attend the first day of class or students who do not log in to MOER within the first three days of class will be dropped by the instructor. You are expected to **attend all classes**. If you miss a class session, you are responsible for catching up on all missed material, including notes, assignments, and announcements. Absent students will **not** receive activity and participation points. **More than three unexcused absences** in this course will result in your **withdrawal** from the class.

Students arriving in class more than five minutes after the start or departing more than five minutes early are tardy. Three days of tardiness equals one unexcused absence.

**Excused Absences:** "Excused" or official absences, according to [MCCCD Attendance AR 2.3.2](#), include only those due to college sanctioned events, jury duty and subpoenas, military commitments, death of an immediate family member, or religious observances. Each of these official absences will require verification, such as the jury summons or funeral program. Prior arrangements must be made for all official absences except an absence for the death of an immediate family member.

**Withdrawals:** A withdrawal (W) may affect your scholarship/financial aid, and prior to withdrawing, you are encouraged to first meet with a Financial Aid Advisor in the Enrollment Center.

In a 16-week class, students may withdraw without instructor permission through the end of the seventh week. Students can request permission from the instructor to be withdrawn from the course up to two weeks before the last class period. These official dates and deadlines are posted on the [SCC Dates and Deadlines](#) website. If a student withdraws or is withdrawn from the course, the instructor is required by law to report the last day of attendance (LDA). This date is based on submitted coursework and/or communication with the instructor about the class.

Please refer to [SCC Dates and Deadlines](#) for important dates and deadlines regarding course withdrawal. The **instructors will not be able to withdraw** any students after the **30<sup>th</sup> of November 2026** in a 16-week course format. You can also find other important dates on the [MCCCD 2026-2027 Academic Calendar](#).

## Instructional Contact Hours and Minimum Course Expectations

**Instructional contact hours** are the weekly time students spend directly learning with their instructor or course activities. These activities include lectures, discussions, labs, group work, and viewing recordings. Instructional contact hours vary by course; refer to the [MCCCD Course Bank](#) for your course's details.

**Minimum course expectations** include the number of hours students are expected to spend outside of class (weekly) completing coursework. Students are encouraged to use the [Time Management Calculator](#) to help estimate their weekly time commitment for classes. In a three credit-hour course completed in 16 weeks, students should plan to spend about 8 hours each week on coursework.

## Course Technologies

View the [SCC Accessibility Statements and Privacy Policies](#) of the technologies used in this course. The [SCC Help Desk](#) provides students with a primary point of contact within SCC for college-supported technology services and technical assistance.

### 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)

### Streaming Media/Audio/Video Tools

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

- [YouTube](#)

## Generative Artificial Intelligence (AI) Policy

The World Economic Forum defines generative AI as “a category of artificial intelligence (AI) algorithms that generate new outputs based on the data they have been trained on. Unlike traditional AI systems that are designed to recognize patterns and make predictions, generative AI creates new content in the form of images, text, audio, and more.” Some examples of generative AI tools include but are not limited to: ChatGPT, Google Gemini, Microsoft Copilot, Stable Diffusion, GrammarlyGo, and Adobe Firefly.

**No Generative Artificial Intelligence (AI) Allowed:** In this class, all work submitted must be your own. The use of generative AI tools will be considered academic misconduct (see Administrative Regulation 2.3.11 1.B(b)) and will be treated as such. If you are unsure if the tool or website you are using is a generative AI tool, please contact the instructor for further clarification before using the tool or website.

# Grading Standards and Practices

## Grade Scale

*Table 1 Course Grading Scale*

| Letter Grade | Points Range |
|--------------|--------------|
| A            | 90 – 100%    |
| B            | 80 – 89%     |
| C            | 70 – 79%     |
| D            | 60 – 69%     |
| F            | 0 – 59%      |

## Assignments

*Table 2 List of Assignments*

| Assignment Name              | Percent of Grade |
|------------------------------|------------------|
| Activities and Participation | 5%               |
| Homework                     | 15%              |
| Quizzes                      | 10%              |
| Unit 1 Exam                  | 20%              |
| Unit 2 Exam                  | 20%              |
| Unit 3-4 Exam                | 30%              |
| TOTAL:                       | 100%             |

## Exams, Make-Up Exams, Quizzes, Homework, and Late Work

**Paper-Based Exams:** You must take exams during their scheduled time. Zero points will be awarded for correct answers on an exam **if no work is shown**, unless otherwise specified by the instructor. You may use a permitted calculator to check your answers on many problems. Students may not leave the classroom once the exam has started until they have submitted their paper.

***When making calculations, you must show how you reached each answer in Written Quizzes, in-class assignments, and exams.*** All module assignments, due dates, and points are found in MOER. Syllabus content and assignments are subject to change at the discretion of the instructor, and changes will be announced in class. You are responsible for any Syllabus changes, even if you were not present the day they were announced.

**Make-Up Exams:** In ***rare circumstances and at the discretion of the instructor***, if a student needs to make up an exam, the grade will be **capped at 70%** regardless of if they score higher.

Make-up exams will not be given during class time. Each exam will have only one scheduled make-up time. *Students are responsible for clearing their calendars for make-up exams; those who miss a make-up exam for any reason may not retake it.* All make-up exams will be administered at the SCC Testing Center.

**Homework:** The Homework is your opportunity to practice the material you learned while completing the Online Lesson. Write down your work and make notes of any questions you may have. You will have three attempts at each question and will have to try a new, similar question to earn full credit.

**Late Passes:** Late Passes can be used on Video Assignments and Online Homework. Any problems completed during the Late Pass extension will result in a 10% penalty.

**Homework and lessons can only be extended until the unit exam.**

**Activities and Participation:** In addition to attending class, you are expected to participate in any course activities planned for the class session. Participation is defined as contributing to mathematical discussions, completing mathematical assignments, and presenting your mathematical thinking to the class. **If you miss class**, you cannot make up any points from any missed in-class activities or assignments of that class. **If you are late or leave early**, you will lose participation points for the day.

## Student/Instructor Interaction

**Response Time:** Students can expect a response time of 24 – 48 hours for the instructor to respond to messages sent via the Canvas Learning Management System, MOER or email. Students can expect assignments to be graded within seven days of the assignment's due date.

## 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 [SCC Tutoring and Learning Centers](#) for detailed information on the five learning centers' hours and procedures.

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. To access Brainfuse and begin working with a tutor, visit [SCC Online Tutoring Services](#).

## MCCCD Policies

MCCCD is committed to providing a safe, fair, and accessible environment for all students. This includes laws such as the ADA and Title IX, which protect against discrimination. These statements explain your rights, available support, and where to go for help or more information. Please review the following policies:

### Classroom Accommodations for Students with Disabilities

In accordance with the Americans with Disabilities Act (ADA), the Maricopa County Community College District (MCCCD) and its associated colleges are committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. physical, sensory, neurological, chronic illness, mental health, learning disabilities, or other health concerns). If you require accommodations for this course, please contact [Disability Resources and Services](#) (DRS) at your college.

Contact with [DRS](#) should be made as soon as possible to ensure academic needs are met in a reasonable time. Additional information can be found in the [Non-Discrimination Statement](#) and [MCCCD Non-Discrimination Policies](#).

### [Addressing Incidents of Title IX Sexual Harassment](#)

Students are responsible for the information contained in this syllabus, the Syllabus page in the Canvas course, and the College Policies & Student Services page located under SCC Student Resources in the Canvas course navigation menu. The instructor will notify students of any changes to course requirements or policies.