

Syllabus

Course Information

- Semester and Year: Fall 2026
- Course Title: Mathematical Concepts and Applications
- Course Prefix and Number: MAT 112
- Section Number: 18394
- Credit Hours: 3
- Start Date: Sept 9, 2026
- End Date: December 18, 2026
- Room Number: CM 460
- Meeting Days: Monday and Wednesday
- Meeting Times: 12:30 PM to 1:55 PM
- Class Format: In-Person

Instructor Information

- Instructor: Atom Uda
- Email: atom.uda@scottsdalecc.edu
- Phone: 480-423-6581 (Math Front Desk)

Course Description

A problem solving approach to mathematics as it applies to real-life situations. Development, use and communication of mathematical concepts and applications that relate to measurement, percentage, practical geometry, statistics, finance, and unit conversions.

Prerequisites and/or Corequisites

Prerequisites: None

Course Competencies

1. Solve practical financial problems mathematically. (I)
2. Use written and verbal communication to describe processes and results. (I-IV)
3. Calculate measures of central tendency. (II)
4. Explain the relevance of mean, median and mode calculations. (II)
5. Create statistics and statistical graphs. (II)
6. Interpret statistics and statistical graphs. (II)
7. Solve relevant problems using statistics and statistical graphs. (II)

8. Make measurements using tools for practical geometry problems. (III)
9. Solve practical application problems using mathematical concepts such as Pythagorean Theorem, similar figures, ratios and proportions. (III)
10. Use appropriate scales, devices, and units in practical geometry problems. (III)
11. Solve real-world mathematical problems involving perimeter, area, surface area, and volume. (III)
12. Apply unit analysis skills to solve related applied problems. (III)

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.

This course emphasizes the development of critical thinking and problem-solving skills. Students will demonstrate these skills by meeting the following institutional learning outcomes:

- 3.1 Identifies information relevant to the issue or problem.
- 3.2 Explains graphical information.
- 3.3 Demonstrates understanding of a phenomenon.
- 3.4 Analyzes data using relevant methods.
- 3.5 Solves problems or defends claims using logical or quantitative reasoning.
- 3.6 Synthesizes evidence to support a conclusion or solve a problem.

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 learned 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. This course fulfills a mathematics requirement for some programs, but not others. Please consult your specific degree or certificate program on the [Degrees and Certificates page](#) of the SCC website to ensure this course counts in your academic plan.

Texts and Course Materials

TEXT: This Course uses OER (Open Educational Resources). All of the materials for the course are available digitally for free in the Course Management system, MOER. There is information on obtaining a printed copy of the materials for cost of printing as well.

Online Course Management System: This course uses MOER, a free Online Course Management System. 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 at <https://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.

The following Course ID and enrollment key are required to enroll in the course

Course ID: 23358

Enrollment Key: 18394

Calculator Requirement: This course requires a TI83/TI84 calculator. The instructor strongly recommends a TI-84+ (a TI-83+ is acceptable). Calculators are available to rent for \$10 per semester on a first come, first served basis in the Media Center of the IT Building. Calculators with QWERTY keyboards or those which do symbolic algebra (such as the TI-92 or TI-89) are NOT allowed. You are expected to bring your graphing calculator to each exam. Your cell phone may NOT be used as a calculator during exams. Sharing of calculators during exams is NOT permitted.

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 also need access to a Webcam and a Microphone if you select to get tutoring online, attend virtual office hours, or take your exams online. You will also need a valid email address that you (and only you) check regularly.

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.

Course Progression: This course is an In-Person course, but it is NOT self-paced. Students are expected to keep up with the assignments and due dates. **Students who fall more than 1 lesson behind (or do not complete any online work over the course of 7 consecutive days) may be withdrawn from the course. Also, failure to enroll and/or complete the syllabus quiz in MOER by the due date may result in being withdrawn from the course.**

Withdrawing from the Course: If it becomes necessary for you to withdraw from the class, you must submit proper forms at the Admissions Office. The last day to withdraw **without** an instructor's signature is Sunday, October 11, 2026. The last day to withdraw **with** an instructor's signature is two weeks before the last class which is Wednesday, December 2, 2026. Additional information on withdrawals can be found in the College Catalog.

Syllabus changes. The instructor reserves the right to make changes to the syllabus. A message will be sent using MOER messages, Canvas messages, and/or email communication to address the change to the syllabus.

Attendance Policy

SCC policy states that you may be withdrawn from the course by the instructor after three unexcused absences. The in-person attendance is important and may result in a withdrawal from the course for consist absences. Failure to complete the lesson by the due date may result in being withdrawn from the course. I am required to withdraw students for failing to complete work for 14 days. Attendance in-person and online assignment completion will be taken into consideration before withdrawing students.

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, but are not limited to, 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.

Course Technologies

View the [Accessibility Statements & 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)

Synchronous Communication Tools

Streaming Media/Audio/Video Tools

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

- YouTube
- Films on Demand

Student Assignment Tools

This course requires students to participate in or submit assignments using desktop or cloud-based applications.

- Google Products
- [Microsoft Office 365](#)

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

Grade Categories - Your final grade will be determined by the following graded events:

<u>Assignment Name</u>	<u>Number of Assignments</u>	<u>Percent of Grade</u>
Orientation Assignment	1	1%
Media Lessons	9	2%
Online Homework, Exam Reviews	11	10%
Online Tests	9	12%
Participation	15	10%
Excel Assignment	1	5%
Midterm Exam	1	30%
Final Exam	1	30%
Total:		100%

Orientation - Getting Started Folder: There is one (1) orientation assignment for you to complete. The Orientation Assignment must be completed before you can access the Media Lesson Assignments. The Orientation Assignment is worth 1% of your final course grade.

Units: There are 3 steps to complete for each Unit.

Step 1: Media Lesson Assignments

For each lesson, you will find a Media Lesson Assignment that includes a series of videos and questions that are designed to help you complete the lesson. You can watch these videos if there are questions as you complete the homework. The Media Lesson Assignments will help you learn the material, and prepare you for the homework assignments. The Media Lesson Assignments are worth 7% of your final course grade.

Step 2 - Online Homework

You are expected to complete homework assignments for each lesson. These assignments are completed online using MOER. In addition, there is a midterm exam review and final exam review. It will benefit you to write out the homework problems, and show your work. Assignments and due dates will be posted in MOER. The Online Homework/Two Exam Reviews are worth 9% of your final course grade.

Step 3 - Online Tests

End of lesson online tests will be assigned in MOER over each lesson and will cover the material you practiced in your homework assignments. They are worth 12% of your final course grade. Test dates will be announced in MOER.

The remaining required assignments to complete in the course are the following.

Participation: Participation and attendance are not the same. You will be expected to attend class every day and complete and submit assignments every class. Therefore, if you miss class, you would lose points for attendance but you would be able to complete the work to earn the participation points. The Participation Grade is 10% of your final course grade.

Exam Reviews: There are two (2) exam reviews to complete. The dates for the Midterm Exam Review and a Final Exam Review are found in MOER. The Exam Reviews are part of the 9% online homework grade.

Midterm Exam: There will be a midterm exam worth 30% of the final course grade. Make up exams will only be granted in extreme circumstances and must be approved BEFORE the missed exam. DO NOT wait until after the missed exam to contact me. Failure to adhere to this policy may result in a grade of zero for the missed exam. The Midterm Exam will be announced during class and stated on the calendar in MOER.

Final Exam: There is a final exam for worth 30% of the final course grade. The Final Exam will be announced during class and stated on the calendar in MOER. There is no make-up exam for the Final Exam. Failure to complete the Final Exam will result in a grade of zero and a failing grade for the course. The Final Exam must be completed to earn a passing grade for the course. The exception to receiving a grade of W and not a failing grade is that you miss the Final Exam for a District-Approved reason. You will be required to submit documentation to prove that your reason for missing the Final Exam is a District-Approved reason.

Student/Instructor Interaction

In this course, you can expect regular and substantive interaction (RSI) that aligns with Scottsdale Community College's mission to provide challenging and supportive learning experiences and the US Department of Education's requirement for regular and substantive interaction (RSI) for online courses. My commitment to your success includes the following:

- Sharing weekly information about the course materials, including key information, explanations, examples, and resources via in-person, recorded, and/or text-based lectures.
- Engaging in weekly discussions about course content within discussion boards in Canvas, forums in MOER, or other discussion-based tools.
- Providing group or individual feedback regularly on assignments.
- Promptly responding to student questions about the course sent via email, MOER messaging, or the Canvas inbox.
- Regularly posting announcements about the course content and activities.
- Monitor your academic progress and communicate concerns, as needed.

Response Time

Students can expect a response time of **24-48 hours** for the instructor to respond to messages sent via the MOER messaging system, the Canvas Learning Management System, or @maricopa.edu email. The exception is if you post a question or message, be aware that after 5 pm on Friday until Monday morning at 9 am, there may not be response until Monday. Any holidays are also not considered part of business hours. Students can expect assignments to be graded within **one week** 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 the [Tutoring & Learning Centers](#) page 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 the [SCC Online Tutoring Services Through Brainfuse](#) page.

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.