Course Information

Semester & Year: Spring, 2025

Course Title: Mathematical Concepts and Applications

Course Prefix & Number: MAT 112

Section Number: 29639

Credit Hours: 3

Start Date: 01/27/2025

End Date: 05/09/2025

Course Format

The course format for this course is Online, Monday, January 27, 2025 to Friday, May 9, 2025. Online classes do not meet at specific class times. All classwork can be completed entirely online. This course requires online exam proctoring. Students should have access to a computer or device with iOS10 or higher, internet access, microphone and a webcam. Proctoring fees may be required. A graphing calculator is required for this course. A TI-83 or TI-84 is strongly recommended. Calculators with a CAS (Computer Algebra System) are not allowed. All textbook and course materials available at no or low cost (<$40) - may include OER (Open Educational Resources).

Instructor Information

Instructor: Atom Uda

Email: atom.uda@scottsdalecc.edu

Phone: 480-423-6581 (SCC Math Front Desk)

Office Location: Online

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

An appropriate mathematics placement score, OR a grade of "C" or better for MAT090, or MAT091, or MAT092, OR (an appropriate diagnostic score, or a grade of "C" or better in each of the following courses: MAT055, MAT056, and MAT057).

Course Competencies

1. Mathematically interpret and solve practical financial problems, using appropriate technology. (I)
2. Create a personal financial budget. (I)
3. Make appropriate mathematically based decisions involving loans and credit cards.
4. Calculate and explain relevance of mean, median and mode. (II)
5. Compare, interpret, create, and apply statistics and statistical graphs, using appropriate technology (such as Excel) to create graphs. (III)
6. Make measurements using tools for practical geometry problems. (III)
7. Solve practical application problems using mathematical concepts such as Pythagorean Theorem, similar figures, ratios and proportions. (III)
8. Use appropriate scales, devices, and units in practical geometry problems. (III)
9. Solve real-world mathematical problems involving perimeter, area, surface area, and volume. (III)
10. Apply unit analysis skills to solve related applied problems, such as calculate miles per gallon, gas usage, kilowatt-hour usage, and cost of electricity usage. (III)
11. Use written and verbal communication to describe process and results. (I, II, III, IV)
Texts, Course Materials and Technologies investments. (V)

Texts and Course Materials

Text: In this course, the textbook is optional. There are 11 Media Lesson Packets (about 15-25 pages each). You have two options for obtaining these materials if you think you need a print out of the textbook.

1. You may submit a request to have a printed copy of the textbook mailed to the home address that is on file with Scottsdale Community. It is your responsibility to be sure the address to send the textbook is correct.

2. Each Media Lesson Packet is located as a pdf in our learning management system, MOER. You may download them and print them from this location.

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 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: 20566

Enrollment Key: 29639

Calculator Requirement: A graphing calculator or graphing calculator app is required for this course. The instructor strongly recommends a TI-83+/TI-84+. If you choose not to purchase one, you can rent one for $10 per semester from the Media Center in IT. 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 class session. Your cell phone may NOT be used as a calculator during class. Sharing of calculators during quizzes or 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 for exam proctoring. You will also need a valid email address that you (and only you) check regularly.

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)

Streaming Media/Audio/Video Tools

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

- YouTube

Exam Proctoring Tool

Respondus LockDown Browser

Respondus LockDown Browser secures online exams by locking down the testing environment within Canvas. LockDown Browser prevents access to other applications, and many common functions on a computer while an assessment is active. The midterm and final exams in this course both require the use of this software. A LockDown Browser download link will be provided within the MOER course. This software is free, but cannot be downloaded on a Chromebook. For further information, see the [Student Resources](#) page provided. For your reference, read the [System Requirements for LockDown Browser](#) and [LockDown Browser Terms of Use](#).

Please note that Respondus LockDown Browser with Monitor 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.

Course Progression: This is an online 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 chapter 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 will 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, March 9, 2025. The last day to withdraw **with** an instructor's signature is two weeks before the last day of class which is Friday,

April 25, 2025. 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.

Math/Science Tutor Center: Free tutoring, calculator assistance, and computers are available online through the Math/Science Tutor Center (https://www.scottsdalecc.edu/students/tutoring/math). You will need to know your SCC student ID number in order to sign in.

Grading Standards & Practices

Grade Scale

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

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

Required Assignments	Number of Assignments	Percent of Total Grade
1. Orientation Assignments	3	1%
2. Online Homework	9	18%
3. Online Quizzes	9	20%
4. Midterm Exam Review	1	1%
5. Final Exam Review	1	2%
6. Midterm Exam	1	28%
7. Final Exam	1	28%
8. Appendix A Excel Assignment	1	2%

Grades are updated continually and visible in the MOER Gradebook section. Check there often to see your overall percent in the course.

The information below explains the structure of the course, requirements, and grading procedure.

1) There are 8 Units in this course and two Appendix assignments. Appendix B is considered the ninth unit. Appendix A is an Excel Assignment that must be completed.

2) The Units include three assignments you must complete: a) Media Lesson Videos, b) Homework, and c) Quiz. The Appendix A assignment is creating graphs in excel and creating a personal budget. You will need to submit the completed Appendix A assignment as an Excel File.

3) You must complete all of the Units and the Excel and Budget assignments in the course to receive a letter grade. Students who do not complete all of these assignments will earn a grade of W. **Important:** The Appendix A assignments must be completed to earn a passing letter grade. You may not pass the class without completing the Excel and Budget assignments.

4) There are 2 proctored exams for this course. The Midterm Exam and Final Exam must be taken by the dates indicated in the course calendar in MOER. There are three (3) options to choose from to complete the Midterm and Final Exams. You may use (a) the Respondus Lock Down Browser and WebCam which will connect you to your Canvas account, (b) the Testing Center at Scottsdale Community College, or (c) the assigned date to test with Professor Uda on the Scottsdale Community College campus. The In-person time with Professor Uda will be posted on the MOER Calendar.

Response Time

Your instructor will respond to posts on the discussion board, messages, and emails within 8 business hours (usually faster). Please understand that business hours are from 9 am to 5 pm, Monday through Friday. If you post a question or message, be aware that after 5 pm on Friday until Monday morning at 9 am is NOT part of business hours. Any holidays are also not considered part of business hours. Students can expect assignments to be graded within 5 business days after the due date.

Attendance Policy

Attendance in an online classroom involves consistent and regular progress on the course assignments. Failure to complete at least one unit each week may result in being withdrawn from the course. I am required to withdraw students for failing to complete work for 14 days.

Instructional Contact Hours (Seat Time)

This is a three (3) credit-hour course. Plan to spend at least three (3) hours on course content or seat time (direct instruction) and seven (7) hours on homework weekly. This is an accelerated course that will require additional 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 SCC 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 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.

In this course, we will use MOER to complete or participate in assignments, activities and/or access course materials. Accessibility Statements and Privacy Policies for all tools used at SCC are available.

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.