SCOTTSDALE COMMUNITY COLLEGE
A MARICOPA COMMUNITY COLLEGE

Course Information

Semester & Year:	Spring 2024
Course Title:	Mathematical Analysis for Business
Course Prefix & Number:	MAT 217
Section Number:	15699
Credit Hours:	3
Start Date:	January 17, 2024
End Date:	May 10, 2024
Room Number:	SL 114
Meeting Days:	Mondays & Wednesdays
Meeting Times:	9:00 – 10:15 am

Course Format

This course is In-person from January 17 to May 10 (16 weeks).

Instructor Information

Instructor:	Carla Stroud
Email:	Carla.Stroud@scottsdalecc.edu
Phone:	(480) 423-6112
Office Location:	CM 424
Office Hours:	Mon/Wed 1:30 – 2:30 pm (in person) Tues 10:00 am – 12:00 pm (in person) Thurs 11:30 – 12:30 pm (online) Other times may be available by appointment

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

Grade of “C” or better in MAT 212 or MAT213.

Course Competencies

1. Solve linear systems with two and three equations using various methods, including matrices.
2. Use 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.
9. Describe the normal distribution and its characteristics.
10. Find probabilities for normal random variables by using the normal distribution.

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 on MOER.

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 or TI-89) are NOT allowed. Your cell phone may NOT be used as a calculator on an exam class.

Computer Access: You will need regular access to a computer with reliable internet connection to complete online assignments. You are responsible for completing all assignments on time regardless of any computer issues that may occur.

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

MOER Account

We will be using MOER as the course learning management system. The syllabus, schedule, announcements, assignments, grades, and course materials/textbook will be accessible through MOER. It is important that you check your MOER account regularly so that you are informed of any announcements/information sent during the week. **Failure to create a MOER account by the end of the first day of class will result in being withdrawn from the course.** Link: https://moer.maricopa.edu

Course ID: 18564 **Enrollment Key: SPRING2024**

Grading Standards & Practices

Grading Weights		**Grading Scale**
Homework (online & written)	20%	A 90% - 100%
Quizzes	16%	B 80% - 89%
Exams (4 exams, 16% each)	64%	C 70% - 79%
		D 60% - 69%
		F 59% or less

Homework: Online homework assignments will be due regularly in MOER. Homework questions can be posted to the FAQ forum for the instructor or other students to answer or asked in class. You will get three attempts at each question, then you will have to try a new similar question for an attempt at full credit. Any written homework assigned during the semester will be announced and posted on MOER. To receive full credit, written homework assignments must be organized, complete, and detailed. Late written homework assignments will be counted for partial credit.

LatePasses: LatePasses can be used on the Online Homework assignments without any penalty. One LatePass will extend the due date for 24 hours (so to complete an assignment 4 days late, you will need to use 4 LatePasses). There is no penalty for using a LatePass, however students will only receive 100 LatePasses. **Homework can only be extended until the unit exam.**

Quizzes: Quizzes will be given regularly in class and will cover the material you practiced in your homework assignments. Quiz dates will be announced in class (with at least one class period of notice). **No make-up quizzes will be given, but the lowest quiz score will be dropped.**

Exams: There are four exams in this course, each worth 16% of your grade. All exams must be taken to earn a grade in the class. Make-up exams will be granted in the case of an official excused absence (see your student handbook for details) or in extreme circumstances at the discretion of the instructor. You must contact the instructor via email or phone and obtain approval **BEFORE** the missed exam. Failure to adhere to this policy may result in a grade of zero for the missed exam.

Attendance/Participation: In addition to attending class, you are also 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 are not able to make-up any points from any missed in-class activities or assignments. If you are late or leave early, you will lose participation points for the day.

Course Policies

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

Academic Dishonesty

When academic dishonesty is suspected, students may be asked to describe their solution method or to redo a similar problem. Students who are found to be cheating on an exam will receive a 0 for the exam.

Course Grading Policy

Exam scores are non-negotiable and extra-credit is not offered in this course. 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. It is unethical for a student to request their final percentage be rounded up to earn their desired grade in the course.

Response Time

Students can expect the instructor to respond to messages within 24 hours Mon-Thurs and 48 hours Fri-Sun. Messages that don't adhere to the "Netiquette" Rules posted in MOER will not receive a response. Online lessons, homework, and quiz assignments will be graded immediately in MOER and other assignments (forum posts, reflections, etc.) will be graded within 48 hours after submission. Exams and written homework assignments will be graded within 5 days of the due date.

Attendance Policy

Students are expected to arrive on time, bring required materials to class, and stay for the entire class period. **You may be withdrawn if you have accumulated more than three unexcused absences.** Official absences (field trips, sports, jury duty, military duty, and religious holidays) will not count against your total absences. The instructor reserves the right to require appropriate documentation for any type of excused absences. If you miss class, you are responsible for all concepts covered, notes, assignments given, and any announcements made.

Instructional Contact Hours (Seat Time)

This is a three (3) credit-hour course. Plan to spend at least three hours on course content or seat time (direct instruction) and six hours on homework weekly.

Math/Science Tutor Center

The Math Center offers free in person and remote tutoring to students who are currently enrolled in mathematics courses at Scottsdale Community College. Visit their webpage for more information: https://www.scottsdalecc.edu/students/tutoring/math

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.