SCOTTSDALE COMMUNITY COLLEGE
A MARICOPA COMMUNITY COLLEGE

Course Title: Calculus and Analytical Geometry 3

Course Information

Semester & Year:	Fall 2024
Course Prefix & Number:	MAT 240/241
Section Number:	MAT 240 – 34431/MAT 241 - 32595
Credit Hours:	5/4
Start Date:	September 3, 2024
End Date:	December 12, 2024
Room Number:	CM 453
Meeting Days:	T & Th
Meeting Times:	5:30 PM – 7:25 PM

Course Format

The course format for this course is In Person with a flexible attendance (HyFlex) component using WebEx.

Instructor Information

Instructor:	Patricia Dueck
Email:	patricia.dueck@scottsdalecc.edu
Phone:	(480)423-6594
Office Location:	CM 453
Office Hours:	MW 4:00 – 5:30 PM and TTh 2:30 – 3:30 PM

- Virtual office hours are the same as above at This Link. (https://meet.google.com/gdz-kwbo-vez) Please inform the instructor via email ahead of time if you plan on attending. She often forgets to turn on the computer during office hours.

Others by appointment

Course Description

Multivariate calculus including vectors, vector- valued functions, partial differentiation, multple integration, and an introduction to vector fields.

Prerequisites

Grade of C or better in MAT230 or MAT231

Course Objectives

1. Solve geometry and physics problems using vectors.
2. Analyze the motion of an object using vector-valued functions.
3. Classify and analyze the behavior of functions of several variables.
4. Interpret the geometry of rectangular, polar, cylindrical and spherical coordinate systems.
5. Solve optimization and other applied problems using partial derivatives.
6. Set up and compute double and triple integrals in any order of integration using rectangular, polar, cylindrical, and spherical coordinates.
7. Solve physical problems using line integrals and vector fields.
8. Compare alternate solution strategies, including technology.
9. Communicate process and results in written and verbal formats.

Texts, Course Materials and Technologies

- **Internet:** The ability to use the internet is required as half of our class is done through WebEx live online.
- **Web Cam:** Both video and audio capabilities are necessary in order for you to attend class using WebEx
- **Text:** *Multivariable Calculus, 5th Ed.*, McCallum, Hughes-Hallett, Gleason et al. This will be loaned to you by SCC.
  Please bring your textbook with you to class daily.

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.

- Webex
- Google Meet

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
- CamScanner (or similar)
- Microsoft Office

Course Policies

First, students are also responsible for the college policies included on the Student Regulations page of the Maricopa Community College District website.

Second, there are policies that govern this specific course, MAT 241.

Policy on Incomplete: In order to receive an incomplete in the course, the student must have completed at least 90% of the course work and have a passing grade at the time the incomplete is taken.

Policy on Student Grades: Final grades are calculated using the scale listed in the syllabus. FINAL GRADES ARE NON-NEGOTIABLE. It is unethical to reach out at the end of the semester and request "a few extra points" or discuss the consequences of not earning the grade you want in the class. Messages of this nature will not receive a response.

Policy on Exams using Disability Resource Services (DRS): Students using DRS to assist with this course are responsible for setting up any necessary accommodations prior to taking any assessments. This is only for items for which DRS is needed.

Cell Phones and Etc.: Upon starting class all cell phones and other objects of tech communication need to be turned off. If there is a true emergency call/text you are expecting, let the instructor know before class. You will forfeit your attendance point if your cell phone goes off during class, you are texting during class or you are using a computer to surf the internet. Of course, with live online portion of the class this cannot be policed. However, it is the smart student who has the self-control to avoid all possible distractions, and pay attention to what is going on in class.

Note: No audio, photos or video of class, instructor or classmates are permitted unless by special request. Photos of work on the boards permitted.

Graphing Calculator: A graphing calculator is required for this course. The suggested calculator is the TI-83/84. Please have the calculator for class daily. No Calculators with CAS systems or QWERTY keyboards may not be used.

Calculator Rental for Students: The Media Center will rent calculators this semester. Students must bring a copy of their schedule, a photo ID, and credit/debit card for payment. It costs $10, and rentals must be done before 5pm.

Other options (cannot be used during exams):

- TI Emulator download (free for 90 days)

  https://education.ti.com/en/downloads/trial-software

- Wabbitemu.org app
- Desmos (desmos.com)

Exams:

1) There will be three exams given during the semester (including the final). These exams will involve a mix of mechanical skills and conceptual reasoning. The best possible preparation for the exams is regular attendance and completion of assigned homework.

2) Each exam is part in-person, proctored and possibly part take-home, non-proctored exam to be completed under a time limit over a weekend. Information regarding the non-proctored portion will be explained carefully when the first exam of this type occurs.

3) There are **no make-up exams** unless you have a valid excuse accompanied with documentation or you have spoken with the instructor before the day of the exam.

4) You have ***one week*** to complete the make-up exam and you may receive a 10% reduction in points regardless of the excuse.

5) You may only make-up one exam per semester. The second missed exam will receive a grade of 0 (zero).

6) Exams are never curved.

7) All exams must be taken in person, in class.

Homework, Quizzes & Projects:

1) Homework will be assigned after each class. Students may work together on homework, but each individual student should complete and write up their own work as much as possible.

2) These hand written problems from part (1) will be turned at the beginning of class on Tuesdays and 2 to 5 chosen problems will graded. Each homework set will be worth 15 points. You may scan them and turn them in on Canvas or turn them in on paper. Either way, they must be done and submitted at the beginning of class

3) **Two** homework sets will be dropped at the end of the semester.

4) ***No make-up homework sets of any kind are allowed***.

5) There also may be group quizzes, or different kinds of individual quizzes at other times in the semester. If you are not in class for these quizzes, you many not make them up.
6) Projects may be assigned in class at various times and may be completed in groups.

Final Exam:

The final exam will be taken December 12, 2024 at the same time class is normally held. There will be no make-ups given for the final with the exception of the reasons below, and no finals will be rescheduled for personal reasons, including nonrefundable airplane tickets.

Final Exam Make-up Policy:

The final exam schedule listed in the Schedule of Classes will be strictly followed. Exceptions to the schedule and requests for make-up examinations can be granted only by the Department Chair and for one of the following reasons:

1. religious conflict (e.g., the student celebrates the Sabbath on Saturday)

2. the student has more than three exams scheduled on the same day as the math final

3. there is a time conflict between the math final and another final exam.

If there is a last-minute personal or medical emergency, the student may receive a grade of Incomplete and make up the final within one calendar year. The student must provide written documentation and make up the final within one calendar year. The student must provide written documentation and be passing the class at the time to receive an Incomplete. Make-up exams will NOT be given for reasons of nonrefundable airline tickets, vacation plans, work schedules, weddings, family reunions, and other such activities. Students should consult the final exam schedule before making end-of-semester travel plans.

Important Note for Students Enrolled in MAT240:

For students taking MAT240 you are required to complete a short essay before each exam. There will be questions for you to answer. You will find the link in Canvas in the module before the week the exam takes place. There will be 5 short essays to complete before each exam. These essays will count towards your homework score. These essay assignments so be sure to complete it within 3 days of the due date, no exceptions.

For students taking MAT241, these essays are OPTIONAL. If you choose to complete them, they will be graded and you will receive feedback. If you decide not to do them it will not affect your grade.

Student Expectations:

Students are expected to be courteous, respectful and empathetic to peers and instructor. Be in class on time, be prepared for class, participate in class activities, follow assignment instructions, effectively complete assignments and turn them in by the appropriate due dates. You are also expected to maintain knowledge of your grade standing and contact the instructor if concerns arise. Students are also responsible for all college policies included in the college catalog and the student handbook.

Grading Standards & Practices

Grade Scale

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

Percent Allocation

Each Exam	28%
HW sets, projects, quizzes	16%

Attendance Policy

- Attendance is expected.
- You are to be in class every day it is scheduled.
- You may be dropped after three absences.
- You are expected to be in class on time.
- You are expected to stay the full length of class once you come to class.
- If you have a legitimate need to leave class early, please notify your instructor before class starts.
- You may attend class 5 times virtually so if you are ill or running very late yet attend class.

Assignments

Please see the Syllabus page on our Canvas course for the list of Homework problems and the course schedule. You have to attend class to be able to turn in HW sets even if you turn them in on Canvas. If you are using flexible attendance on the day a HW set is due, you will complete it at home, scan it and submit it to Canvas within 10 minutes of the start of class.

Assigning of Grades

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. Your grade is an evaluation of PERFORMANCE. This means it is dependent upon how well you demonstrate your comprehension of the subject through application and completion of the items listed above and below in this syllabus.

Response Time

Students can expect a response time of 72 hours for the instructor to respond to messages sent via the Canvas Learning Management System or email. Students can expect assignments to be graded within 14 days of the assignment's due date.

Instructional Contact Hours (Seat Time)

This is a four (4) credit-hour course or a five (5) credit-hour course. Plan to spend at least four or five hours on course content or seat time (direct instruction) and 8 or 10 hours on homework weekly. Accelerated courses will require additional time per week.

Generative Artificial Intelligence (AI) Policy

Opening Statement Regarding Generative Artificial Intelligence (AI)

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 Bard, 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.

Tutoring

The Math Tutor Center offers in-person as well as remote tutoring to students currently enrolled in mathematics courses at SCC. Remote tutoring is being offered online via Google Meet and can be accessed via computer or phone.

Click Here (https://www.scottsdalecc.edu/students/tutoring/math) to find out how and when to reach a free SCC Math Tutor!

As much as possible, it is highly recommended that you first utilize your professor then use the SCC Math Center tutors since they are familiar with SCC coursework, instructor expectations, and assignments; however, if you need to work with a tutor outside regular Math Center hours, you have access to a 24/7 online tutoring service called Brainfuse. You may utilize up to 6 hours of online tutoring through Brainfuse per semester and have 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.

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.