



# MAT 265: Calculus for Engineers I

## Overview

In this college-level calculus course, you will study topics of differential and integral calculus, including limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. This course is ideal for students interested in engineering, mathematics, computer science, physics, chemistry, earth and atmospheric sciences, and life sciences. Topics covered in this course include limits (including those involving infinity); derivatives and rates of change; continuity; applications of the derivative; linear approximation; accumulation; antidifferentiation; definite integrals; and more. Content in this course is adaptive, allowing you to achieve mastery in a certain concept before moving on to the next.

## What You'll Learn

- The meaning and computation of limits
- The meaning and determination of continuity
- The meaning and computation of average rates of change and applications
- The meaning and computation of instantaneous rates of change and applications
- The meaning and computation of accumulation and applications
- The meaning and computation of Riemann Sums and applications
- Techniques to solve optimization problems and applications

## How to Succeed

To be successful in this course, we recommend English language fluency and computer literacy. We also encourage you to make sure your laptop or desktop computer meets the [technical requirements](#).

**MAT 170 Precalculus is strongly suggested as a prerequisite for success in this course.**

## Earn College Credit

This course appears on your transcript identically to how it appears on the transcript of an enrolled ASU student.

This course satisfies 3 credit hours toward the Mathematics (MA) General Studies requirement at Arizona State University. It is strongly encouraged that you consult with your institution of choice to determine how these credits will be applied.

In order to receive academic credit for this course, you must earn a grade of "C" or better. You have one year to add the course to your transcript.

## Exams and Grading

**5%**

**Gradarius Topics**

**15%**

**Gradarius Quizzes**

**10%**

**Practice Exam Quizzes**

**35%**

**Midterm Exam**

**35%**

**Final Exam**

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## Course Structure

This course uses Gradarius, a calculus learning platform that personalizes your learning based on the topics you already know and the topics you still need to learn. You will also have access to individualized coaching as you move through each topic in this course.

## Time Commitment

The work in this course is equivalent to an eight week course but you have one year to complete it. Please plan your goals accordingly. During this year, you are encouraged to work through the course at a pace that suits your needs.

You have one year from the date you enrolled to complete the course, and you have one year from the date you complete the course to purchase your academic credit.

## Materials

This course makes use of open educational resources (OERs) provided within the course, **no purchase necessary**. Calculators are allowed, **except** for those that do symbolic algebra (such as the Casio FX2, Casio 9970Gs, TI-89, TI-92) or those with QWERTY keyboards.

## Graded Assignments

**Gradarius Topics (5%):** Each topics work will be completed in a tool called Gradarius.

**Gradarius Quizzes (15%):** There are five quizzes in Gradarius with three attempts for each one. Quizzes are based on the topics since the last quiz, lectures, and video material. It is highly recommended to complete the quiz after practicing all topics of the module. The quizzes are not proctored.

**Practice Midterm and Final Exam Quizzes (10%):** There are two practice exam quizzes with unlimited attempts for the benefit of the student to prepare for the actual exam. You need at least 70% on these practice quizzes to unlock the exams.

**Midterm Exam (35%):** The midterm exam is proctored, timed, and covers content from Topics 1-15

**Final Exam (35%):** The final exam is proctored, timed, and covers the entire course, Topics 1-24.

## Course Communication

All communication will take place via the discussion forums and course announcement page. There will be a discussion forum where you can post general questions, comments, and direct inquiries for the instructor and course team. Please use these forums to ensure a timely response. Your instructor will not be able to respond to email.

## Course Resets

Self paced courses cannot be reset. If you are not happy with your grade and want to take the course again, you have two options: you may take the course the next time it is offered in an instructor led format or wait until a new version of the self paced course opens at the beginning of every academic year on the first day of class in August.

## Transcript

You will be able to add the course to your transcript **six weeks after enrolling**. Although the course is self paced, course attendance dates will be listed on your transcript. After purchasing the credits, the course will appear on your transcript in the session you **completed** the course. If you are on the cusp of two sessions and need to confirm the date of completion or beginning/end of a session, please contact our support team at [ulcourses@asu.edu](mailto:ulcourses@asu.edu).

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## Additional Information

If you have questions about Universal Learner Courses and how they work, please visit [ea.asu.edu](https://ea.asu.edu) or contact our support team at [ulcourses@asu.edu](mailto:ulcourses@asu.edu).