

Course Information

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| Course Number: | Math 1496 |
| Course Name: | Calculus I |
| CRN: | 31471 |
| Location: | MCS 220 (Monday, Wednesday, Friday) MCS 220 (Tuesday and Thursday) |
| Class Hours: | 9:00-9:50am Monday, Wednesday, Friday (Lecture) 9:25-10:40am Tuesday and Thursday (Lab) |
| Textbook: | Required: Calculus (Early Transcendental Functions 7e) by Ron Larson and Bruce Edwards and WebAssign access. Optional/Supplemental: Calculus for Cats by Amdahl and Loats. |
| Prerequisites: | C or better in MATH 1390 and C or better in MATH 1392 OR C or better in MATH 1580 |

Instructor Information

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|-------------------------|--------------------|
| Name: | Dr. Jeffrey Beyerl |
| Office Location: | MCS 231 |
| E-mail: | jbeyerl@uca.edu |
| Phone: | 501-450-5681 |

Course Description

As a prerequisite for nearly all upper-division mathematics, this course is a requirement for majors and minors in mathematics and other majors in the natural sciences and engineering. The content includes the study of limits, continuity, derivatives, integrals, and their applications.

Course Objectives and Requirements

The primary objective in this course is to develop the theory and computational skills for the three main topics in calculus:

- Limits
- Derivatives
- Integrals

Office Hours

My availability changes every day. Go to the website below for up to date availability.

You can either schedule a virtual (Zoom) appointment, or in person. For in person office hours you will need to wear a mask and maintain social distance. Meet me at my office, but when possible, we'll meet in a conference room.

Appointments can be scheduled from 24 to 120 hours in advance.

Office Hours Website: <https://ucamath.youcanbook.me/>



Grading Policy

- **Homework**

This course will use the publisher's WebAssign homework system. If you purchased your textbook bundle through the university bookstore, it provides lifetime access to this homework system for all three of the calculus courses. Homework accounts for 10% of your course grade. Sometimes technology fails for one reason or another and you may lose points you should have earned: to account for this, the final homework score will be multiplied by 1.05.

- **Video Problem Presentations**

These are problems for which you will solve and create a video depicting your solution. VPPs will be 15% of your course grade.

- **First Activity**

Are you reading the syllabus? You're supposed to, it details what to expect from the next 14 weeks! E-mail the instructor before 9:25am on Tuesday the 18th and let him know you read the syllabus to receive credit for the first activity.

- **Borderline Grades**

Borderline grades will be determined at the instructor's discretion based on the final exam.

- **Lab Activities**

Our Tuesday and Thursday meetings are lab sessions. They will involve working in groups. The central focus of labs is to reinforce your understanding of the material by solving calculus problems. Labs will account for 10% of your course grade.

- **Study Skills Project**

The focus of the project will be study skills pertaining to this mathematics course. The project will be 3% of your course grade.

- **Tests**

There are three tests; each is a written full-class-length non-calculator test. Each one is cumulative and worth 15% of your course grade.

- **Final Exam**

The final exam is written, noncalculator, and cumulative. It is worth 17% of your course grade.

- **Calculation of Grades**

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|---|-------------|
| A | $\geq 90\%$ |
| B | $\geq 80\%$ |
| C | $\geq 70\%$ |
| D | $\geq 60\%$ |
| F | $< 60\%$ |

Student Learning Objectives

Upon completion of the course, student will be able to:

- Evaluate limits algebraically.
- Evaluate derivatives using basic rules.
- Evaluate limits, continuity, and derivatives graphically.
- Use concepts from calculus to locate extrema over a closed interval.
- Evaluate antiderivatives, integrals, and definite integrals using basic rules.
- Use definite integrals to find areas of given regions.

Important Dates

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| Last day to Drop Drop means the course is not on your record | January 20 th |
| Video Problem Presentation 1 Due | Sunday, January 30 th |
| Video Problem Presentation 2 Due | Sunday, February 13 th |
| Test 1 | Thursday, February 17 th |
| Video Problem Presentation 3 Due | Sunday, March 6 th |
| Study Skills Project Due | Sunday, March 13 th |
| Test 2 | Thursday, March 17 th |
| Last day to Withdraw Withdraw means the course is on your record with a "W" but does not factor into your GPA. Talk to your professor, advisor, and financial aid officer before withdrawing. | April 8 th |
| Video Problem Presentation 4 Due | Sunday, April 10 th |
| Video Problem Presentation 5 Due | Sunday, April 17 th |
| Test 3 | Thursday, April 21 st |
| Final Exam | Tuesday, May 3 rd , 8:00-10:00am |

Outside of class resources

- The Textbook
 - Description of material
 - Example and exercise problems
- Blackboard
 - Test solutions
 - PowerPoints from class
 - Other class materials
- Office Hours
 - Individual help
 - Availability changes every day. See <https://ucamath.youcanbook.me/>.
- The Math Resource Lab
 - Study Area
 - Tutors available throughout the day
- Previous course materials
 - <http://faculty.uca.edu/jbeyerl/courses.html>
- Academic Success Workshops (Tuesday or Thursday at X period)
 - <http://uca.edu/studentsuccess/academic-success-workshops/>
- Peer Coaching (time management skills, study skills, motivation!)
 - <http://uca.edu/studentsuccess/successcoaching/>
- Communication Skills (oral and written)
 - <http://uca.edu/cwc/>

Study Groups

Each week I would like to see somebody organize a formal study group. One per week, first come first served. You will receive a 5 point bonus on your next test if you volunteer to organize a formal study group. A study group can be as involved or as simple as you want to make it. I want you to take the initiative and be creative. You may be a formal study group leader at most once during the semester.

- Sign up to be a study group leader on the Google Form under links.
- By Friday before the week starts, e-mail me your plan. No more than 100 words.
- On Monday at the start of class, tell the class what your study group will look like and how other students should join or attend.
- By Sunday at the end of the week, e-mail me with the outcome and a list of attendees. In particular address (1) what happened, (2) anything you would do again, and (3) anything you would not do again. No more than 200 words.

For each study group you attend, you will receive a 5-point bonus into your final homework score. (It's something, but significantly less than what the leader gets for organizing it!)

UCA Core Association

This course is part of the Critical Inquiry component of the Lower-Division Core. Critical Inquiry courses promote the ability to analyze new problems and situations to formulate informed opinions and conclusions. For more information, go to <http://uca.edu/core>

Late Work

Late homework can be completed for a 20% penalty.

Labs cannot be made up for any reason; the lowest 2 scores will be dropped.

The study skills project and VPPs may be turned in late for a 20% penalty within 5 days; a 50% penalty after that.

Tests are graded and returned the next day, so after the fact make-ups are not an option. Instead, they will fall into one of three categories:

1. A pre-arranged absence where you take the test before you are absent. *Contact me 7-10 days before the test to make arrangements to take the test. You should do this regardless of whether or not you or a coach contacted me at the start of the semester with your schedule.*
2. An extenuating circumstance where you miss the test. The score will be replaced by the final exam.
3. An unexcused absence. The score will remain a 0%.

The instructor will decide at his digression which category your absence falls into. I am both understanding and firm, but I recognize that sometimes "life happens". When in doubt, send me an e-mail. Examples:

- You are the best man at a wedding that takes place on a test date. You don't contact me beforehand and show up the day after the test hoping to take a make-up. This is an unexcused absence because you knew about the wedding ahead of time and should have made arrangements to take the test before you left. The test will be recorded as a 0%.
- You are traveling home from a wedding on test date. You met with me during the first week of classes to tell me about the conflict, I said it would be okay but to remind me a week before the test. One week before the test you e-mail me that you'll be gone on both Wednesday and Thursday next week. You take the test on Tuesday before you leave for the wedding.
- You were the one getting married at the wedding, but the wedding was before the test date so you expected to be back in time for the test. However, your would-be spouse left you at the altar. The ensuing emotional distress caused you to skip the test because you just didn't care. The final exam will replace your missing test score, assuming you provide some reasonable documentation about your circumstance so I know you just didn't make the story up.

Expected Study Time

A good rule of thumb is that to be successful in a college course, you should work on your own two hours for every credit hour. This course is 4 credit hours, so you should plan on studying 8 hours per week for this course. If you are well prepared you may need to study less; if you are not well prepared you may need to study more. If this is your first semester in college, please experiment with different study techniques throughout the course of the semester to figure out what works best for you. You can schedule a study technique consultation during office hours if you would like assistance developing a study plan.

Excused Absences

If you are part of an organization that includes official university trips, you will be excused from each day that you are on travel as long as you contact me each time to let me know what's going on.

When you miss a lecture, you will need to study that material on your own.

When you miss a lab, that will be one of your dropped scores. If you have more excused absences than the 2 that are dropped, let me know and more labs will be dropped. You will also need to plan a significant amount of independent study time to catch up from the amount of learning you've missed.

If you plan to miss a test, see the "late work" section above.

*****VERY IMPORTANT*** DO NOT COME TO CLASS IF YOU THINK YOU MIGHT BE SICK.** If you have a fever or persistent cough or other coronavirus symptoms, take the appropriate recommended action and E-mail me when you are able to.

Attendance Policy

Your active participation in this course is expected and required for you to learn the material and earn a passing grade. If you miss more than two weeks of class meetings throughout the term, you may be administratively dropped from the course.

Academic Integrity Statement

The University of Central Arkansas affirms its commitment to academic integrity and expects all members of the university community to accept shared responsibility for maintaining academic integrity. Students in this course are subject to the provisions of the university's Academic Integrity Policy, approved by the Board of Trustees as Board Policy No. 709 on February 10, 2010, and published in the Student Handbook. Penalties for academic misconduct in this course may include a failing grade on an assignment, a failing grade in the course, or any other course-related sanction the instructor determines to be appropriate. Continued enrollment in this course affirms a student's acceptance of this university policy.

Academic integrity is taken seriously: cheating on a test will result in a failing grade in the course; allowing another student to copy off of your test will result in a one-letter-grade penalty.

Americans with Disabilities Act Statement

The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, please contact the UCA Office of Disability Services, 450-3613.

Title IX disclosure:

If a student discloses an act of sexual harassment, discrimination, assault, or other sexual misconduct to a faculty member (as it relates to "student-on-student" or "employee-on-student"), the faculty member cannot maintain complete confidentiality and is required to report the act and may be required to reveal the names of the parties involved. Any allegations made by a student may or may not trigger an investigation. Each situation differs and the obligation to conduct an investigation will depend on those specific set of circumstances. The determination to conduct an investigation will be made by the Title IX Coordinator. For further information, please visit: <https://uca.edu/titleix>. *Disclosure of sexual misconduct by a third party who is not a student and/or employee is also required if the misconduct occurs when the third party is a participant in a university-sponsored program, event, or activity.

Sexual Harassment and Academic Policies Statement

All students are required to familiarize themselves with the University of Central Arkansas policy on sexual harassment and on academic policies. These policies are printed in the Student Handbook.

Building Emergency Plan Statement

An Emergency Procedures Summary (EPS) for the building in which this class is held will be discussed during the first week of this course. EPS documents for most buildings on campus are available at <http://uca.edu/mysafety/bep/>. Every student should be familiar with emergency procedures for any campus building in which he/she spends time for classes or other purposes.

Departmental Program Assessment

Toward the end of the semester there will be a quiz that will be used both for this course and for program assessment. Program here refers to the math major program that the department of mathematics runs.

Pandemic Information

- You need to follow all university policies including those on masks. Specifically All students are expected to comply with the University policy regarding face coverings (see <https://uca.edu/coronavirus/students/>)
- At the time of this writing, the university requires masks in nearly all indoor areas specifically including classrooms.
- I've been vaccinated. You are encouraged to get vaccinated if you haven't yet. If I had access to information that everyone in our course has been vaccinated for COVID, that would be stated here so that we could all be more comfortable with our classmates. As of the time of this writing, I cannot say that everyone in our class has been vaccinated and so you are encouraged to keep your distance from your classmates.
- If you are sick, do not come to class. E-mail me and I will make individual accommodations based on the information you provide.
- If we are directed to pivot online and cease in person meetings, we will meet synchronously on Zoom.
- If we are directed to limit in-person seating below the enrollment of the course, we will cease in person meetings and meet synchronously on Zoom.