Calculus II Spring 2020

# **Course Information**

Course Number:	Math 1497	
Course Name:	Calculus II	
CRN:	32229 & 26601	
Location:	Arkansas Hall 110 (Tuesday and Thursday)	
	MCS 220 (Monday, Wednesday, Friday)	
Class Hours:	8:00am-9:15am (Tuesday and Thursday)	
	8am-8:50am (Monday, Wednesday, Friday)	
Textbook:	Required: Calculus (Early Transcendental Functions 7e) by Ron Larson and Bruce	
	Edwards. ISBN 978-1-337-55251-6	
Prerequisites:	C or better in MATH 1496	

# **Instructor Information**

Name:	Dr. Jeffrey Beyerl
Office Location:	MCS 237
E-mail:	jbeyerl@uca.edu
Phone:	(501) 450-5681

# **Course Description**

This course is required of all majors or minors in mathematics, chemistry, or physics. Topics include applications of the definite integral, techniques of integration, infinite series, conics, parametric equations, polar coordinates, vectors, and vector functions. This course is a prerequisite for Calculus III and most of the upper division mathematics courses.

# **Office Hours**

My availability changes every day. Go to the website below for up to date availability. When you schedule an appointment, please specify what you're coming for.



Walk-ins are also welcome: if my office door is open, I'm available. However, if somebody with an appointment comes, they will receive priority.

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

# **Course Objectives and Requirements**

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

- Techniques of integration
- Infinite Series
- Applications of calculus to curves

# **Grading Policy**

### Homework

Homework problems will be suggested but not assigned. It is your responsibility to assure you know the material and can solve problems without assistance.

### Tests

All tests are written 75-minute non-calculator test. Each test is cumulative.

### Activities

Activities are given most Tuesday and Thursday meetings.

### • Oral Problem Presentations

Oral problem presentations are in Dr. Beyerl's office. Each student will sign up for a time to meet with the instructor. There will be one problem presentation every three weeks, approximately.

# • STEM Residential College Activities

This is the STEM residential college section of calculus II. As such you will need to complete a number of activities that promote the values of the residential college. See the separate handout for details.

### Test Average

In order to pass the course, your test average or final exam must itself be passing ( $\geq 60\%$ ).

### • Borderline Grades

Borderline grades will be determined based on the final exam and/or the quality of your work throughout the course.

### Good Citizen

You are expected to be a decent person. Everybody starts with 100 points in this category; 10 points are deducted every time you present yourself poorly, such as disrupting class or missing a scheduled appointment without canceling first.

Test 1	15%
Test 2	15%
Test 3	15%
Quizzes	4%
Activities	8%
Oral Problem Presentations	7%
STEM Residential College Activities	10%
Good Citizen	1%
Final Exam	25%

# **Student Learning Objectives**

Upon completing this course you should be able to:

- Do integrals using: Integration by parts, trig substitution, and partial fractions.
- Do calculus involving parametric curves.
- Use polar coordinates to find areas and lengths of curves
- Determine when/if sequences and series converge.
- Compute a Taylor series for a function.
- Parameterize lines and curves in 2D and 3D

# **Important Dates**

Last day to Drop Drop means the course is not on your record	January 15 <sup>th</sup>
Oral Problem Presentation 1	January 27-31 <sup>st</sup>
Test 1	February 6 <sup>th</sup>
Oral Problem Presentation 2	February 24 <sup>th</sup> -28 <sup>th</sup>
Test 2	March 5 <sup>th</sup>
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.	March 30 <sup>th</sup>
Oral Problem Presentation 3	April 6 <sup>th</sup> -10 <sup>th</sup>
Test 3	April 16 <sup>th</sup>
Final Exam	Thursday April 30 <sup>th</sup> 8am-10am

### **Outside of class resources**

- The Textbook
  - Description of material
  - o Example and exercise problems
  - Homework problems
- Blackboard
  - Quiz/test solutions
  - Notes from class
- Office Hours
  - o Individual help
  - o Availability changes every day. See <a href="https://ucamath.youcanbook.me/">https://ucamath.youcanbook.me/</a>.
- Previous course materials
  - o http://faculty.uca.edu/jbeyerl/courses.html
- The Math Resource Lab
  - Study Area
  - o Tutors available throughout the day
- Academic Success Workshops (every Tue at Xperiod)
  - o <a href="http://uca.edu/studentsuccess/academic-success-workshops/">http://uca.edu/studentsuccess/academic-success-workshops/</a>
- Online Success Workshops (reading strategies, note-taking skills, test prep, etc!)
  - http://uca.edu/studentsuccess/academic-success-workshops/
- Peer Coaching (time management skills, study skills, motivation!)
  - o http://uca.edu/studentsuccess/successcoaching/
- Communication Skills (oral and written)
  - o <a href="http://uca.edu/cwc/">http://uca.edu/cwc/</a>

#### **Late Work**

Homework assignments may be turned in late for a 20% penalty. They will be kept by the instructor; at the end of the semester if there is a chance they can affect your course letter grade, they will be graded.

### **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 one hour of lecture. This course has 3 hours of lecture per week, so you should plan on studying 6 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 consolation 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 make arrangements for any missed work. It is your responsibility to make arrangements to make up any missed work before you leave for the trip. If you are going to miss a test or quiz, you must contact me approximately one week beforehand to make arrangements for the make-up, preferably by email.

For personal emergencies, you should contact me when it is safe and reasonable to do so, include documentation of the emergency. At his discretion, the instructor may choose to administer a make-up, issue a zero, or use the final exam to replace the missing test or quiz.

### **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.