Course Information

Course Number:	Math 2335
Course Name:	Transition to Advanced Mathematics
CRN:	20540
Location:	MCS 220
Class Hours:	MWF 10:00-10:50am
Textbook:	A Transition to Advanced Mathematics by Smith, Eggen, & St. Andre. 8th Edition
Prerequisites:	Math 1497

Instructor Information

Name:	Dr. Jeffrey Beyerl
Office Location:	MCS 237
E-mail:	jbeyerl@uca.edu
Phone:	501-450-5652

Course Description

This course is an introduction to the language and methods of advanced mathematics. The student will learn the basic concepts of formal logic and its use in proving mathematical propositions. Specific topics that will be covered may vary depending upon the instructor, but will include basic number theory and set theory.

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/

Computers

- As part of this course you'll learn how to type mathematics on a computer.
- You'll see me typing mathematics during class
- Each homework assignment has a written and typed portion
- Computer programing knowledge is not required

Course Objectives and Requirements

The primary goal of this course is to develop an understanding of logic and the deductive thinking process used in mathematics.

Grading Policy

- **Make Ups**
  Make-up tests/quizzes will only be given for official university events or personal emergencies. In the former case the test must be taken before official test date, in the latter case a short letter explaining why you missed the test, why this justifies a make-up, and supporting documentation must be turned in by the day you're able to return to class. In the event that a make-up is justified, it must be taken before you are able to return to class. At his discretion, the instructor may choose to administer a make-up test or use the final exam to replace the make-up.

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

- **Tests**
  Three tests will be traditional in class written tests. The fourth test will be an Oral Exam. Each student will sign up for a time to meet with the instructor. During the oral exam, you will solve the problems on a whiteboard and explain your reasoning.

Test 1	10%
Test 2	15%
Test 3	15%
Test 4 (Oral)	10%
Homework	20%
Quizzes	5%
Participation In Class	5%
Final Exam	20%

Question: What will homework be like?

Answer: Homework comes in 3 flavors:

(1) Suggested problems that are not collected

(2) Written computational and theoretical problems

(3) Typed problems that are used to develop mathematical grammar and communication skills

Question: What will tests be like?

Answer: Tests in this course will have some problems very similar to the homework, and some problems that require applying what you've learned to new problems.

Student Learning Objectives

- Be able to construct mathematical proofs using formal logic and quantification.
- Be able to analyze mathematical proofs.
- Be able to illustrate relationships between sets and prove statements involving sets.
- Be able to construct and analyze mathematical proofs involving relations, functions, and cardinality.
- Be able to describe common proof techniques in a nonspecific manner.

Important Dates

Last day to Drop Drop means the course is not on your record	January 16th
Test 1	February 15th
Test 2	March 15th
Last day to Withdraw Withdraw means the course is on your record with a "W" but does not factor into your GPA	March 29th
Test 3	April 17th
Test 4 (Oral)	April 22-26
Final Exam	Monday April 29th 8am-10am

Outside of class resources

- The Textbook
  - Description of material
  - Example problems
  - Exercise problems
  - Homework problems
- Blackboard
  - Quiz/test solutions
  - Notes from class
- Office Hours
  - Individual help
  - Availability changes every day. See https://ucamath.youcanbook.me/ for up to date availability
- Previous course materials
  - http://faculty.uca.edu/jbeyerl/courses.html
- The Math Resource Lab
  - Study Area
  - Tutors available throughout the day
- Academic Success Workshops (every Tue at X-period)
  - http://uca.edu/studentsuccess/academic-success-workshops/
- 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!)
  - http://uca.edu/studentsuccess/successcoaching/
- Communication Skills (oral and written)
  - http://uca.edu/cwc/

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.