Discrete I Fall 2014

### **Course Information**

Course Number:	Math 2330	
Course Name:	Discrete Structures I	
CRN:	12244	
Location:	MCS 212	
Class Hours:	MWF 10:00-10:50am	
Textbook:	Discrete Mathematics by Johnsonbaugh (7 <sup>th</sup> )	
Prerequisites:	"CSCI 1470 and Math 1491 or Math 1496"	

# **Instructor Information**

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

Office Hours: By appointment or walk-in. Designated walk-in times are:

Monday	9:00-9:50am; 12:40-1:30pm
Tuesday	8:00-9:15am
Wednesday	9:00-9:50am; 12:40-1:30pm*
Thursday	8:00-9:15am
Friday	9:00-9:50am

<sup>\*</sup>The afternoon office hours on Wednesday are in the MRC

Sometimes my schedule changes; any changes will be reflected on the calendar outside my office.

# **Course Description**

This course provides a mathematical foundation for applications in computer science and for the development of more advanced mathematical concepts required for a major in computer science. Topics include sets, relations, functions, induction and recursion, graphs and digraphs, trees and languages, algebraic structures, groups, Boolean algebra, and finite state machines.

## **Course Objectives and Requirements**

The primary goal of this course is to develop the common tools in mathematics used throughout math and related disciplines.

### **Grading Policy**

Your grade will be computed from quizzes, tests, and a final exam.

Quizzes will be short and plentiful: approximately every class day.

Tests will be administered approximately one third, two thirds, and three thirds into the semester. Make-up tests 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 return to class.

The professor reserves the right to add up to two percentage points to the course average for any student that has shown genuine mastery of the course concepts.

Quizzes	30%
Test 1	15%
Test 2	15%
Test 3	15%
Final Exam	25%

Course Average	Course Grade
[90,100]	Α
[80,90)	В
[70,80)	С
[60,70)	D
[0,60)	F

## **Student Learning Objectives**

- Be able to use deductive reasoning.
- Be able to express common types of sets.
- Be able to determine and justify properties of relations.
- Be able to determine and justify properties of functions.
- Be able to work in the integers mod *n*.
- Be able to use mathematical induction.

## **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 fail to regularly and actively participate it will demonstrate that you are not making a reasonable effort to complete this course, and you will be administratively dropped for non-attendance with a grade of WF.

#### **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.

#### 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.