COMP 256/L - Discrete Structures (Fall, 2020)

Professor: Adam Clark (adam.clark@csun.edu)

Section: 17014/17015

Textbook: D. Irani, Discrete Math (zyBooks)

Lectures: ONLINE, Mo/We 1900-2015

Labs: ONLINE, Mo/We 2030-2145

Office Hours: ONLINE By Appointment

Prerequisites: COMP 182/L, MATH 150A, PHIL 230

Objectives

Throughout this course, the student will become familiar with the underlying mathematics used in computer science. In particular, the student will become comfortable reasoning about discrete mathematical structures: sets, graphs, and trees. Functions, recursion, proof techniques, relations, and counting will also be presented as necessary for reasoning about computation.

Schedule

Week	Topic	Sections
August 24, 26	Logic	1.1 - 1.13
August 31, September 2	Proofs	2.1 - 2.7
September 9	Sets	3.1 - 3.7
September 14, 16	Functions	4.1 - 4.5
September 21, 23	Boolean Algebra	5.1 - 5.5
September 28, 30	Relations & Digraphs	6.1 - 6.5
October 5, 7		6.6 - 6.10
October 12, 14	**Midterm**	
October 19, 21	Induction & Recursion	8.1 - 8.4, 8.6 - 8.9
October 26, 28		8.10 - 8.14
November 2, 4	Integer Properties	9.1 - 9.7
November 9	Introduction to Counting	10.1 - 10.6
November 16, 18		10.6 - 1.10
November 23, 25	Graphs	13.1 - 13.9
November 30, December 2	Trees	14.1 - 14.6
December 7	**Review**	
December 14	**Final Exam**	

Grading

Participation: 10%

Homework: 10%

Recitation: 20%

Midterm: 30%

Final: 30%

Participation and homework credit will be based on the timely completion of those activities and challenges, respectively, in the reading for a given week. These are due on Saturday night at midnight the week of their corresponding lecture.

Both lecture and lab will share a grade, with lab credit factored in to both. At the end of some lectures, challenge questions will be given to be worked on during the lab portion of the class. Students may work in

groups of up to four members, but must submit their answers via Canvas before lab has concluded for the evening. Only one submission per group is allowed, all participants must have their name on their submission to receive credit.

Both the midterm and final will be comprehensive. These exams are a mix of true/false, multiple choice, fill-in-the-blank, and multiple answer. Some time during lecture prior to each exam will be devoted to a review of material covered on the exam. In the case of the final, the entire week prior will be devoted to a comprehensive review of the course material. The student is expected to come to these review sessions with any questions they would like covered. **There will be no structured review material**.

Score	**Grade**
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Academic Dishonesty

According to CSUN academic policies:

> The maintenance of academic integrity and quality education is the responsibility of each student within this University and the CSU system. Cheating or plagiarism in connection with an academic program at a CSU campus is listed in Section 41301, Title 5, California Code of Regulations as an offense for which a student may be expelled, suspended or given a less severe disciplinary sanction. Academic dishonesty is an especially serious offense and diminishes the quality of scholarship and defrauds those who depend on the integrity of the University's programs.

All instances of academic dishonesty will be reported to the office of student affairs. In addition, the offending assignment or exam will at minimum receive no credit towards a final grade. In most cases, the student will simply receive a failing grade for the course. If you are unsure as to what constitutes academic dishonesty, please see the instructor for clarification.

Attendance

Students are expected to attend lectures. While there is no credit given for attendance, students who miss a session are expected to learn the material on their own. Office hours are a student's primary opportunity to ask questions about course materials.