Computer Science 200 (Math 200) - Discrete Structures

1 Introduction

Course: CS200 (Math 200) – Discrete Structures
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Lectures: Wednesdays 6:30-9:50pm in MOD2, online materials on my website.

1.1 Course Description

Computer Science 200 is an introduction to discrete mathematics with emphasis on applications to computer science. Topics include functions, relations, sets, logic, proof techniques, basics of counting, number theory, discrete probability, graphs and trees.

1.2 Reading

Required Text: Discrete Mathematics and Its Applications, 7th Ed.
By: Kenneth H. Rosen
ISBN: 0-07-338309-0

1.3 SLO - Student Learning Outcome

Upon completion of the course, the student should be able to apply mathematical induction and other techniques to prove mathematical results. The student should be able to examine the logical validity of arguments and proofs as they apply to Boolean expressions. The student should be able to illustrate the basic terminology and properties of graphs and trees. The student should be able to perform binary and hexadecimal conversions of numbers. The student should be able to perform computations using recursively defined functions and structures. The student should be able to solve problems involving sets, relations, functions, and congruencies. The student should be able to use graphs and trees to solve problems algorithmically. The student should be able to use methods of combinatorics to solve counting problems.

2 Assignments/Quizzes/Final Exam

2.1 Assignments

Assignments in the course will be made up of problems from the text, or computer programming tasks that demonstrate student learning of the topics presented in the text as they relate to computer science and programming. Assignments will be worth a maximum of 20 points. Due dates for the assignments will be at 6:30pm on the Wednesday after the assignment has been assigned. Any assignment turned in after the due date will be worth no more than 50% of the potential maximum grade.

2.2 Chapter Quizzes

Upon conclusion of studying and discussing a chapter, we will have a chapter quiz on the chapter on the following Wednesday after completing the chapter discussion. The chapter quizzes will count towards the final grade. The chapter quizzes will be about three to five questions per quiz and be worth a maximum of 25 points. It is strongly advised to keep the quiz after they have been graded and returned to you, as I will derive my Final Exam off of the same very questions on the quizzes.

2.3 Final Exam

There will be a comprehensive final examination covering everything discussed in class. The final exam will be Wednesday, May 25th, 2016 at 6:30pm in room MOD2.

2.4 Reading and Exam Schedule

The table below is the tentative reading and examination schedule for this semester (subject to change).

Week	Reading / In Class Objectives
1 – Jan 20th	Introduction, 1.1-1.5
2 – Jan 27th	2.1-2.3, Ch. 1 Quiz
3 – Feb 3rd	2.4-2.6
4 – Feb 10th	3.1-3.3, Ch. 2 Quiz
5 – Feb 17th	4.1-4.3, Ch. 3 Quiz
6 – Feb 24th	4.4-4.6
7 – Mar 2nd	1.6-1.8, 5.1-5.5, Ch. 4 Quiz
8 – Mar 9th	6.1-6.6, Ch. 5 Quiz
Mar 16th	Spring Recess – No Class
9 – Mar 23rd	7.1-7.4, Ch. 6 Quiz
10 – Mar 30th	8.1-8.5, Ch. 7 Quiz
11 – Apr 6th	9.1-9.6, Ch. 8 Quiz
12 – Apr 13th	10.1 – 10.4, Ch. 9 Quiz
13 – Apr 20th	10.5 – 10.8
14 – Apr 27th	11.1 – 11.5, Ch. 10 Quiz
15 – May 4th	12.1 – 12.4
16 – May 11th	13.1 – 13.5
17 – May 18th	Review for Final Exam
18 – May 25th	Final Examination

2.5 Make Ups

There are no make ups for assignments or quizzes. However, exceptions can be made due to extreme, unforeseen circumstances (documented proof will be required).

3 Grading

3.1 Point Breakdown

Task	Points	Grade Weight
Assignments	20 pts each	20%
Quizzes	25 pts each	30%
Final Exam	100 pts	50%

3.2 Grading Scale

Letter Grade	Percentage
A	90% to 100%
B	80% to 89%
C	70% to 79%
D	60% to 69%
F	0% to 59%