cmpe220 Discrete Computational Structures

2015 Fall v2015-11-23

2015-11-23

Catalog Definition

Propositional logic and proofs. Set theory. Functions and relations. Algebraic structures. Groups and semi-groups. Graphs. Lattices and Boolean algebra.

Web Site

http://www.cmpe.boun.edu.tr/courses/cmpe220.

General Information

Instructor	Haluk O. Bingol
TA	Mehmet Köse
Student TA	Utkan Gezer
Course Schedule	TWW 156
PS Schedule	MM 78

Grading

Quizzes, Homeworks	10 %
Midterm 1	25 %
Midterm 2	30 %
Final	35 %
Presentations	? % (as bonus)

Exams are not open book any more. You can bring one-page (A4) of your handwritten notes to exams.

Text Book

- Discrete and Combinatorial Mathematics, 5e; Grimaldi; *Addison-Wesley*, 2004; [QA39.2 .G7478 2004]

Reference Books

- Introduction to Discrete Structures; Preparata and Yeh; *Addison-Wesley*, 1973, [QA162.P7]

- Applied Abstract Algebra; Lidl and Pils; *Springer-Verlag*, 1984, [QA162.L53]
- Discrete Mathematics and Its Applications, 6e; Rosen; *McGraw-Hill*, 2007, [QA39.3.R67 2007]

Weekly Program (Tentative)

week	**Subject**
1	Logic and Proof
2	Sets and Functions
3-4	Binary Relations
5	Algebraic Structures
6-7	Integers, Division, Primes
8	Induction, Recursion, Recurrence Relations
9-10	Counting
11-13	Graphs and Trees

Important Dates (Tentative)

Due	**Action**
26.10.2015/09:00	hw 1
02.11.2015/17:00	mt 1
23.11.2015/09:00	hw 2
07.12.2015/17:00	mt 2
21.12.2015/09:00	hw 3
TBA	final

ABET

Course Learning Outcomes (CLO)

- CLO1: Understand formal descriptions
- CLO2: Explain using formal notation
- CLO3: Be able to do proofs
- CLO4: Write math in LaTeX

Course Learning Outcome Contribution to Student Outcome

Student Outcomes	CLO1	CLO2	CLO3	CLO4
(g) an ability to communicate effectively	x	x		x
(o) knowledge of discrete mathematics	x			