

CENG 124 – Discrete Structures

Semester: Spring 2016-2017

Course webpage: <http://ceng124.cankaya.edu.tr>

Schedule:

Section 1: Monday 11:20-13:10 (L-B05) and Wednesday 15:20-16:10 (L-B05)

Section 2: Thursday 09:20-11:10 (L-B05) and Friday 15:20-16:10 (L-B05)

Instructor: Asst. Prof. Sibel Tariyan Özyer

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Description:

Sets, relations and functions, application to data structure and graph representations, partial ordered sets, trees, algebraic structures, lattices and Boolean algebra, semi groups, groups, introduction to grammars and machines and languages, error correcting codes.

Textbook:

Discrete Mathematics and Its Applications, Kenneth Rosen Seventh Edition, 2012, McGrawHill.

Grading:

Homeworks (%30), Midterm (%30), Final (%40).

Outline:

Course Outline	
<i>List the topics covered within each week.</i>	
Week	Topic(s)
1	Introduction
2	Basic Structures: Sets Chapter 2.1, 2.2
3	Basic Structures: Functions , Sequences and Summations Chapter 2.3, 2.4
4	Relations (properties, n-ary) Chapter 9.1,9.2
5	Relations (representing relations) Chapter 9.3
6	Relations (partial orderings) Chapter 9.6
7	Review and examples
8	Graphs (terminology) Chapter 10.1, 10.2
9	Graphs (isomorphism, connectivity) Chapter 10.3, 10.4
10	Trees (introduction) Chapter 11.1, 11.2
11	Trees (applications, traversal) Chapter 11.3
12	Boolean Algebra Chapter 12.1, 12.2
13	Machines and Languages Chapter 13.1
14	Review and examples