

CmpE 250 Data Structures and Algorithms

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| Teaching Assistants | Suzan Ece ADA (ece.ada@boun.edu.tr) Kutay ALTINTAŞ (kutay.altintas@boun.edu.tr) Student Assistants TBA |
| Class Hours | WThTh 656 (Lecture) NH 104 EF 206 EF 206 |
| PS Hours | MM 78 (PS) BM A2 |
| Course Website | moodle.boun.edu.tr |
| Textbook | M. A. Weiss, Data Structures and Algorithm Analysis in Java, Pearson, 3rd Edition. |
| Reference Books | Jon Kleinberg, Eva Tardos. Algorithm Design. Addison Wesley, 2006 |
| Goals | This course is designed to teach a) the analysis of advanced data structures and algorithms, b) their implementation using Java programming language with object oriented programming concepts. |

Tentative Outline

- Introduction
- Basic data structures
- Introduction to algorithm analysis
- Hashing
- Priority queues
- Sorting
- Graph basics & directed acyclic graphs (Topological Sort)
- Traversing & searching on graphs
- Spanning trees
- Network flows
- Algorithm design techniques

Basis for evaluation

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| Midterm exam | 20 % |
| Quizzes | 5 % |
| Projects | 45 % |
| Final exam | 30 % |
| Total | 100 % |

A change of +- 5% may occur in the basis of evaluation!

Important: Projects and homeworks assigned in this course are essential for passing the course. Please carefully read and understand: (1) Plagiarism and (2) late submission policies from WK1 slides !