Announcements
The announcements will be posted on the OIS system.

Course Objectives
Upon completion of this course students will
- Become familiar with some major advanced data structures and algorithms.
- Become familiar with mathematical tools used in analyzing algorithms.
- Be able to analyze the asymptotic running time of an (iterative/recursive) algorithm.
- Be able to make best/worst/average case analysis of algorithms.
- Become familiar with important algorithm design paradigms.
- Be able to decide which data structure/algorithm among a set of possible choices is best for a particular application.
- Be able to recognize and distinguish efficient and inefficient algorithms.
- Be able to design efficient algorithms for new problems using the techniques learned.

Textbook
The textbook is required. There will be no separate lecture slides.

Course Outline
Available on the web page

Grading Policy
Midterm (30%)
Final (%50)
Programming Project (20%)

Problem Sets
There will be problem sets consisting of problems selected from the textbook. The solutions of these problems will be given but they will not be graded. So, you do not need to turn in the solutions.

Variations of some of the problems in the assignments will appear in the midterm and the final. Sometimes not the variation but exactly the same problem might appear in the exams. So, it is for your benefit to try hard to solve each problem before looking at the solutions. Even if you cannot solve a particular problem you should study its solution.

Exams
Midterm and the final will be open book. You will be responsible from everything that which is covered in the class. During the semester we will examine various algorithms. You do not need to "memorize" them. However, you need to understand them in every detail. In the exams, you can
look at these algorithms from your textbook. But, if you do not understand an algorithm before the exam, it is almost impossible to understand it during the exam.

**Plagiarism**

Plagiarism (representing another person's ideas or work as one's own) is considered academic dishonesty and will be punished with the maximum extent possible. If you use any other source (such as another person's work or something on the Internet) you should also properly acknowledge it.