In this course, we will explore several fundamental algorithms and data structures in computer science, and learn to implement them. Some of the data structures we will encounter include linked lists, stacks, queues, trees, heaps, hash tables, and graphs. We will study and analyze algorithms for searching, traversing trees, hashing, manipulating priority queues, sorting, finding shortest paths in graphs, and much more. Note: You may have seen some of this material before. However, the treatment of algorithms and data structures in this course will be much more rigorous and in-depth compared to CSE 143.

Prerequisites: CSE 321


Grading and Evaluation: Grades will be computed approximately as follows (weights may be modified):

- 25% - Written Homework Assignments
- 25% - Programming Projects
- 20% - Midterm Exam
- 25% - Final Exam
- 5% - Best of the four items above
CS 326 – First Day Assignments

1) **Sign up for the mailing list** (see course home page for more info on this) (immediately)

2) **Project #1** – Your first programming assignment will be posted later on today (Jan 3\(^{\text{th}}\)). Please come to section tomorrow (Thursday) with questions.

3) **Preliminary Survey**: Please fill out the preliminary survey posted on our course web page by the evening of Friday January 5\(^{\text{th}}\). (Course home page = http://www.cs.washington.edu/326/)

4) **Information Sheet**: Please bring a sheet of paper with the following information with you to lecture on Friday January 5\(^{\text{th}}\):

```
A Picture of you!
Student ID is o.k. but something more interesting or readable is nice too.

Name (and what you like to be called)
Email address
Year (1,2,3,4 i.e. freshman, sophomore, etc.)
Major
Hometown
Interesting Fact about yourself and/or what you did over summer/winter break.
```

5) **Reading** in *Data Structures and Algorithm Analysis in Java, 2\(^{\text{nd}}\) Ed., 2007*, by Weiss
   • For this week:
     › Chapter 1 – (review) Mathematics and Java (pp. 1-25)
     › Chapter 3 – (Project #1) Lists, Stacks, & Queues
        • Lists (pp. 57-81, heavy on Java, much of this should be review)
        • Stacks (pp. 82-83)
        • Applications of Stacks (pp. 83-91, sections on “Postfix Expressions” and “Infix to Postfix Conversion” can be skipped, but read “Method Calls”)
        • Queues (pp. 91-95)
     › Chapter 2 – (Topic for Friday) Algorithm Analysis (pp. 29-50)