

Computer Science 373 – Analysis of Algorithms
Prof. Steven Skiena
Fall 2016

Homework 1 – Asymptotics and Data Structures
Due Tuesday, September 27, 2016

Each of the problems should be solved on a separate sheet of paper to facilitate grading. Limit the solution of each problem to one sheet of paper. Please don't wait until the last minute to look at the problems. All numbered problems come from the second edition of *The Algorithm Design Manual*, by Skiena.

Follow these instructions for submitting and grading the homework:

1. Log into Blackboard and select course *CSE 373*.
2. Click *Assignments* on the left panel.
3. Click on *View/Complete Assessment*.
4. Click on the questions and upload your answers as a pdf file accordingly. Answers can be either handwritten and scanned or typeset. It is best if you submit one pdf file with all the answers as the answer to the first problem instead up uploading multiple files, **but type something in the textbox for each question** to satisfy the system. **Each student in the group should submit the file seperately to get credit!**
5. Click *Submit* when you finish.

During evaluation period (the week after the submission date, you will assess your peers' assignments:

1. Sign in and click on *View/Complete Assessment*
2. First, read the standard answers (key) and make sure you understand it. The key will be uploaded to Blackboard at the start of the grading period.
3. Each student will be assigned three assignments to grade. Click on *User 1* to *User 3* to grade each one. Hopefully the pdf for the first problem will have all the answers in it.
4. For each assignment, you will grade each problem seperately. Assign a value between 0 and the maximum for each answer. Be fair to your peers. Write a short comment for each problem (even just *OK*), but more if the answer is not right.

Please be patient with this peer grading experiment. This is the first time we are trying it and we expect glitches.

1. Problems 1-17 and 1-19.
2. Problems 1-20 and 1-22.
3. Problems 2-7 and 2.8
4. Problem 2-19.
5. Problems 2-21 through 2.24.
6. Problem 3-2.
7. Problem 3-4.
8. Problem 3-10.
9. Problem 3-11.

Interested students may attempt the extra credit programming challenges problems described at the end of the relevant chapters for a small amount of additional points – small enough that you should be motivated primarily by interest and not greed.