CSCI 136: Spring 2018
Handout 1
February 2

# Syllabus

## Data Structures and Advanced Programming

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| Instructor (9a.m.) | Prof. Bill Jannen |
| Office | TCL 306 |
| Phone | 597-4509 |
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| Instructor (10a.m.) | Prof. Jon Park |
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| Lectures | MWF 9–9:50am (Jannen), 10–10:50am (Park), both in TCL 206 |
| Labs | W 12–2pm, 2–4pm |
| | Due Sunday at 11pm |
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| Web Page | `http://www.cs.williams.edu/~cs136` |

## Texts

We will be using the $\sqrt{7}$ edition the following text book:

- *Java Structures: Data Structures in Java for the Principled Programmer,* $\sqrt{7}$ *E*dition, Duane Bailey.

You must use this edition. A PDF version is available on the course website. We have also printed copies of the text book as a course reader. We encourage you to take a copy of the course reader; your term bill will be charged whether you take a copy or not, but we will reuse unclaimed books for future courses.

## Course Objectives

This course couples work on program design, analysis, and verification with an introduction to the study of data structures. Data structures capture common ways in which to store and manipulate data, and they are important in the construction of sophisticated computer programs. We will use the Java programming language in class and for the assignments.

Students will be expected to write several programs, ranging from very short programs to more elaborate systems. Since one of our goals in this course is to teach you how to write large, reliable programs composed from reusable pieces, we will be emphasizing the development of clear, modular programs that are easy to read, debug, verify, analyze, and modify.

We will use the computers in TCL 216 & 217a for the programming assignments. You will be given door codes to access this room once the semester begins.

## Course Work

**Workload** The work that you should expect to engage with, beyond the scheduled lectures and weekly lab meetings, will involve

- Reading the text: 12-15 pages, on average, per lecture
- Preparing for the weekly programming labs
- Completing the weekly labs
- Completing a modest number of written problems
- Studying for the mid-term and final exam

Some students program quickly but read slowly, some do the opposite. The typical student should expect to spend at least 10 hours a week beyond the scheduled lecture and lab hours. If you find yourself spending substantially more time than that on a regular basis, discuss the issue with your instructor.

**Labs.** On most weeks, there will be lab programming assignments. **Attendance in lab is mandatory**: there are valid reasons to miss lab, but unexcused lab absences will result in course failure.

All programs will be graded on design, documentation and style, correctness, and efficiency. Programs should be turned in electronically by 11pm on the due date, typically the Sunday following lab. Each student may use a maximum of **three free late days** during the course of the semester. A late day permits you to hand in an assignment up to 24 hours late, without penalty. Once those late days are exhausted, late labs will be penalized 10% per day. Programs will not be accepted more than four days late. To use a late day, **you must email your instructor in advance and you must include a note to the graders** in the comments at the top of your files.

**Exams.** There will be one midterm and one final exam. The midterm will be scheduled on Wednesday, March 14, and it will replace the lab for that week. The final exam will be a scheduled exam during the exam period.

**Grading.** Grades will be determined as follows:

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| Final exam: | 30% |
| Midterm exam: | 25% |
| Labs and assignments: | 40% |
| Engagement: | 5% |

Engagement is a subjective evaluation of how you interact with the material and the class. We will use the full range from 0 (e.g., submits required work, attends some classes) to 5 (e.g., attends all sessions, participates in class, refers to the readings, raises new topics, shares knowledge with other students). Learning is collaborative; this is our way to reward students who positively affect the experience of fellow class members.

## Honor Code

Homework and lab assignments are to be the sole work of each student unless the assignment explicitly states otherwise. Students may discuss issues related to an assignment, provided that such discussions are cited in the material turned in. However, students may not collaborate on designing or writing code. Uncredited collaborations will be considered a violation of the honor code and will be handled appropriately. If in doubt of what is appropriate, do not hesitate to ask us. For a full description of the Computer Science Honor Code, please see
`https://csci.williams.edu/the-cs-honor-code-and-computer-usage-policy/`.

## Help!!!

Help. We all need it. There are many resources available when *you* need it. You are encouraged to discuss any questions, concerns, difficulties, or thoughts about the course with your instructor. In addition, TAs are available to help you with challenges you might face as you work through the course material and lab assignments. If you find yourself facing challenges beyond the typical, we encourage you to reach out. Talk to your instructor, a friendly face from the Dean's Office, or some of the many professionals across campus who stand ready to help, including

- The Peer Tutor Program: Tutors can be arranged when 1-1 help is required beyond that available from your instructor and TAs. `https://academic-resources.williams.edu/peer-tutor-program/`
- Math & Science Resource Center: Support is available for students grappling with the more quantitative aspects of their coursework. `https://academic-resources.williams.edu/math-science/`
- Accessible Education and Disability Support Center: Some students with documented disabilities may require accommodations in certain situations. If that's you, take advantage of the options available. `https://academic-resources.williams.edu/disabilities/`
- The Health Center: Sometimes your challenges are not course-related. The Health Center provides a range of medical, psychological, and health/wellness services. `https://health.williams.edu`