CSCI 161: Computer Science I

Professor

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Thompson 390E
Office MW 11-12, Th 1-2
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Meetings

MWF 10:00-10:50 / Th 11:00-12:50 in Thompson 409. The final will be on May 7th at 8:00.

Course Description

Welcome to computer science.

CS I is the gateway to learning how to program. Every other computer science course starts here. This class lays the foundations for understanding logical programs and their applications in data mining, artificial intelligence, computer gaming, biomedical informatics, and more. People who can program computers have a special ability. More than almost every other major here, computer science gives you a valuable skill, that will reward you long after you have graduated.

We will be using the Java programming language. Java is a modern, high-level language that is suitable for a wide variety of tasks. Almost anything that can be programmed, can be programmed in Java. It is also similar to many other programming languages, including C++, JavaScript, Perl, Python, PHP, C#, Go, and Ruby. The skills you learn here will be easily transferable to other languages.

Learning Outcomes

By the end of this class, you will be able to understand, implement, and use in programs:

- Elementary arithmetic and string manipulation.
- Conditional logic.
- Loops, including nested loops.
- Functions and methods.
- Debugging and programming practices.
- Arrays and basic data structures.
- Object-oriented programming.
- Basic graphics.

Web Page

The class web page will be located at http://mathcs.pugetsound.edu/~aasmith/cs161/. Valuable info and links will be posted there.

Text

The optional text we will use is “Java For Everyone (Late Objects)” by Cay Horstmann. This provides valuable supplementary material. Please consider buying it.

Prerequisites

You should already have had three years of high school math, or taken MATH 110.

Course Policies

There will be twelve assignments over the course of the class—usually one each week. You are free to talk to others in the class about them, but I expect what you finally turn in to be 100% your own work. Assignments will be penalized by 20% for each working day (or fraction thereof) they are late, down to 40%. However, you will have five “extension days” during the semester to extend a deadline by one working day. They will be used automatically, unless you specify otherwise.
There will also be weekly lab assignments done in small groups. If your work compiles properly and appears to be a good-faith attempt, you will be given either 50% or 100%. Otherwise you will get 0%. You may keep trying so long as you have less than 100%.

You all should be aware of the Honor Code at the college. Please do not cheat—it will not go well for you. *Any suspected cheating will be immediately reported.*

Exams are closed book, and will be cumulative. You are allowed a calculator (or your phone, so long as it is in “airplane mode”) and one two-sided, letter-sized page of notes. They will be graded on a curve, with the highest score considered to be 100%.

**Grading**

Final grades will be determined as follows:

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<thead>
<tr>
<th></th>
<th>Homeworks</th>
<th>Labs</th>
<th>Midterm 1</th>
<th>Midterm 2</th>
<th>Final</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>25%</td>
<td>10%</td>
<td>20%</td>
<td>20%</td>
<td>25%</td>
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In particular, notice how heavily weighted assignments are. *Missing assignments is the easiest way to get a lower grade.* Please be sure you do them, and on time. In addition, class participation and effort may help bump you up, if your final grade is borderline.

**Tutoring**

The department offers a drop-in tutoring session in this room on Sunday through Thursday evenings. Please take advantage of this if you feel yourself dropping behind!

**Attendance**

I will not be keeping attendance (except on the first day). However, odds are that your attendance will correlate highly with your final grade.

**General UPS Info**

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Peggy Perno, Director of the Office of Accessibility and Accommodation, 105 Howarth, 253.879.3395. She will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Please review university emergency preparedness and response procedures posted at [www.pugetsound.edu/emergency/](http://www.pugetsound.edu/emergency/). There is a link on the university home page. Familiarize yourself with hall exit doors and the designated gathering area for your class and laboratory buildings. If building evacuation becomes necessary (e.g. earthquake), meet your instructor at the designated gathering area so she/he can account for your presence. Then wait for further instructions. Do not return to the building or classroom until advised by a university emergency response representative. If confronted by an act of violence, be prepared to make quick decisions to protect your safety. Flee the area by running away from the source of danger if you can safely do so. If this is not possible, shelter in place by securing classroom or lab doors and windows, closing blinds, and turning off room lights. Lie on the floor out of sight and away from windows and doors. Place cell phones or pagers on vibrate so that you can receive messages quietly. Wait for further instructions.

**Miscellany**

If there are any special holy days that you will be taking off, please let me know as soon as you can so that we can work around them.

Please consider getting a flu shot. Influenza kills, and disease can spread rapidly in the dorms. (And you really don’t want to miss a week of class. Trust me.)

Finally...if there’s anything else I can do to help you, please let me know. I’m willing to go out of my way to make this a valuable class for you, but I can’t do that unless you talk to me.