CSCI 161: Computer Science I

Professor
Adam A. Smith
Office hours by phone
aasmith@pugetsound.edu
http://cs.pugetsound.edu/~aasmith/

Meetings
We will meet MTThF 1:00-2:50 / TTh 3:00-5:00 online. The final will be on the last day in class.

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, networking, artificial intelligence, computer gaming and graphics, 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.

Topics Covered
By the end of this class, you will be able to understand, implement, and use in Java 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 is located at http://cs.pugetsound.edu/~aasmith/cs161/. Valuable info and links will be posted there.

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

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

Course Policies
There will be ten to twelve assignments over the course of the class—usually two 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 session to extend a deadline by one working day. They will be used automatically, unless you specify otherwise.
There will also be two lab assignments each week 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 (probably with the highest score considered to be 100%).

### Grading

Final grades will be determined as follows:

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<tr>
<th></th>
<th>Homeworks</th>
<th>Labs</th>
<th>Midterm</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>30%</td>
<td>15%</td>
<td>25%</td>
<td>30%</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.

### 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 remember that people in this class come from a variety of experiences levels, with regard to computers. Try to be respectful of your fellow students. (And please believe me, there is a lot that you don’t know.)

### 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.

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.