CS 161: Computer Science I

Professor
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Thompson 390E
Office Hours MW 12-1, Th 3-4
x3557

Meetings
MWF 11:00-11:50/Th 1:00-2:50, in Thompson 409. The final will be on Monday, December 14th at 12:00.

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 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
The specific topics we will cover include:
- Elementary arithmetic and string manipulation.
- Conditional logic.
- Loops, including nested loops.
- Use of functions.
- 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 text we will use is “Java For Everyone (Late Objects)” by Cay Horstmann.

Prerequisites
You should have already 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. You may work on these in small groups if you choose, though all of you will have to turn it in, and your partners’ names must be
listed. Good-faith work that compiles but is still critically lacking will be worth 50%. 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.

### 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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<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 that 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.

Tests will be cumulative. They will be graded on a curve, with each score divided by the high score. 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 most 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 extremely high that your attendance will correlate with your final grade.

### Boilerplate

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 Student Accessibility and Accommodations, Howarth 105, **pperno@pugetsound.edu**, 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, response procedures and a training video 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.