Syllabus for CS161 – Introduction to Computer Science
Spring 2018

Course Description

Welcome to CS 161, "Introduction to Computer Science". This course has four primary goals:

1. To provide students with an introduction to the basics of computer programming

2. To introduce students to good programming practices – e.g., readability, encapsulation, security, efficiency, and good object-oriented design

3. To develop students' problem-solving and logical-thinking skills

4. To familiarize students with the types of problems studied in computer science

The Java programming language will serve as a vehicle for us to achieve these goals. At the end of this course, students should be able to write a medium-sized computer program (e.g. 3-5 interacting classes), to systematically track down and identify errors, and to appreciate the intricacy of the growing web of computer networks, applications, and systems that our society is becoming increasingly dependent upon.

Although this is a computer science course, it fulfills the *mathematical* core requirement for a reason: you will be honing your logical thinking and problem-solving skills. In many ways, this course is a math course. As such, to help you be as successful as possible, you will be working through a math study skills workbook. What you learn from this workbook will make you a more effective student in this and future classes.
Note: This course is intended for students with no previous programming experience. If you have previous programming experience, please send me an email so we can make sure you're in the correct class.

Administrative Details

Instructor: Professor Chambers (alchambers@pugetsound.edu, Thompson 405)

Office Hours: Mon, Wed, Thurs, Fri 1:45-2:45pm or by appointment.

Other Availability: I'm unavailable Tuesdays and don't respond to emails at night or on Saturdays.

Course Time and Place: MWF 9 – 9:50am in Thompson 409

Lab Time and Place: Thursday 9 – 10:50am in Thompson 409

Course webpage: `http://mathcs.pugetsound.edu/~alchambers/cs161`

Required Textbooks:
Lewis and Loftus. *Java Software Solutions.* 8th Edition.
Alan Bass. *Math Study Skills.* 2nd Edition.

Course Breakdown

Grading: Grades in the course are based on four components:

35%	Weekly Homework Assignments
15%	Exams (There are 3 exams overall, each worth 15%)
10%	Weekly Labs
10%	Math Study Skills

Readings: Each class period will have a corresponding reading assignment taken from the textbook. *It is imperative that you do the reading for this course.* Many confusions and difficulties can be resolved by doing the reading. I recommend that you at least skim the reading before coming to class so you can make effective use of class time. The readings for each class are posted on the course webpage under "Lectures".

Weekly Labs: The weekly lab provides you with hands-on programming practice and serves as preparation for the weekly homework assignment. It is in lab that you will have the opportunity to work through any misconceptions on your way to understanding. As such, labs are graded based upon progress made rather than completeness or correctness.

Homework Assignments: Homework assignments are more substantial projects than lab assignments. Homework assignments are due on Mondays and you will typically have 1 week to complete each assignment. You are given 1 week to work on each assignment because it will take 1 week to complete the assignment. If you wait until the weekend to start, you are setting yourself up to fail. I highly recommend that you start the assignment on the day it is posted. See below for the late policy.

Math Study Skills: For the first 5 weeks of the semester, you will be working through *Math Study Skills* – a workbook written by Alan Bass to help students succeed in math. Each week you will read through the assigned sections and do the corresponding activities. I will collect your workbook every Friday and return them to you on Monday.

Tests: There will be two in-class midterm exams. The first exam is tentatively scheduled for the 6th week of the semester and the second exam is tentatively scheduled for the 11th week of the semester (these dates are subject to change). Note that exams cannot be made up except for in cases of emergency. The final exam for the course is scheduled for May 9th at 8am. Please do not buy your plane tickets until after our scheduled final exam. Details will be given closer to the exam dates.

Academic Accommodations

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.

Late Policy

Late homework assignments will be penalized by $3^n\%$ for $n \leq 4$ where n is the number of days the assignment is submitted late. The only extensions[1] given are for unexpected medical or family emergencies. In the case of an emergency, I will ask you to talk with the Dean of Student's Office. This preserves your privacy and allows you to coordinate not just with me, but with all your professors.

Office Hours

Office hours are your chance to ask me questions related to the course, computer science, or other academic matters (letters of recommendation, advising questions, etc). Unless I send an email or make an announcement in class, you can assume I will always be available during the office hours listed above – no need to ask. Please prepare before coming to office hours. This means you should come with a specific question or idea that you want to ask about.

I don't allow students to sit and do work in my office. I've found that students who do this immediately ask a question whenever they are confused rather than trying to solve the problem on their own. Since I won't always be with you in the future, one of my goals is to make sure you become independent and capable programmers.

In-Class Policies

Laptops and cell phones are not allowed in class. I've found that students with open laptops and cell phones are a distraction to themselves and others. Please leave your cell phone in your backpack (or don't bring it). If you have an accommodation in which you require a laptop, please let me know.

For most class periods, I will use the white board. There are no posted powerpoint slides or lecture notes. If you miss class, please ask a fellow student if you can copy their class notes. Although I will not take attendance, attendance is often correlated with a student's grade in the course.

Prepare yourself to be in class and attentive for the full 50 minutes. Students getting up and leaving in the middle of class are a distraction both to the other students who are trying to learn and to me as I endeavor to use those 50 minutes effectively. In particular, this means you should fill your water bottles and use the restroom before coming to class. If you have to leave class, you do not need to ask permission – quietly get up and go.

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[1]An extension is when a student is allowed to turn in an assignment after the due date with no penalty