Syllabus for Introduction to Computer Science
Fall 2016

Course Goals

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

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

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

3. 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, 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.

In addition to course goals, this course has two main principles[1]:

1. Courage - Among other things, this encompasses the courage to admit that you do not understand something, the courage to try *despite* not understanding, and the courage to risk an answer that may be wrong.

2. Persistence - Among other things, this encompasses the perseverance necessary to work through misunderstandings and confusion, the perseverance necessary to solve complex problems, and the perseverance necessary to track down bugs.

The extent to which you engage with these principles is the extent to which you will be successful in this course. *This course is intended for students with no prior experience with computer programming.*

Administrative Details

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

Office Hours: MW 2:00pm – 3:30pm, Thur 1:15pm – 2:45pm or by appointment.

Other Availability: Outside of office hours, you are welcome to stop by if the door is open. I am not available on Tuesdays and I 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

Textbook: Lewis and Loftus. *Java Software Solutions.* 8th Edition. (Required)

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[1]These are patterned after the Extreme Programming philosophy

Course Breakdown

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

35%	Weekly Homework Assignments
20%	Weekly Labs and Quizzes
30%	Midterm Exams (2)
15%	Final Exam

Readings: Each class period will have a corresponding reading assignment taken from the textbook. *It is imperative that you get into the habit of doing the reading!* Many confusions and difficulties can be resolved by simply 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".

Friday Quizzes: Each Friday there will be an in-class quiz during the first five minutes of class. The purpose of these quizzes is to practice logical thinking and to strengthen your problem-solving skills. These are meant to be low-risk – i.e., you can use the quizzes as a gauge for assessing your understanding without worrying about how each one will affect your final grade. Friday quizzes cannot be made up but your two lowest scores will be dropped.

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. Homeworks will be due on Mondays and you will typically have 1 week to complete each assignment. See below for the late policy.

Tests: There will be two in-class midterm exams and a final exam at the end of the semester. The final exam is scheduled for December 12th 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.

Course Policies and Conduct

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[2] given are for unexpected medical or family emergencies.

In-Class Policies

Please do not bring your laptops to class. I have found that students with open laptops often get distracted. 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. It should go without saying that class attendance is mandatory.

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 do need to leave class, you do not need to ask permission – quietly get up and go.

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. Here are some examples of good and bad ways of approaching office hours:

Good: "I'm confused about `if` statements. When the boolean expression is true, do we continue testing the remaining expressions or are we done?"

Bad: "I don't understand `if` statements at all. Can you explain them to me?"

Good: "I keep getting a null pointer exception at this line of code. I know that means one of my variables is null but I've printed them all out and none of them are null!"

Bad: "My code isn't working..."
Bad: "I'm getting a null pointer exception..."

I don't allow students to sit and do work in my office. I've found that students who do this end up practicing a bad habit: immediately asking 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.

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