CS 170 Introduction to Computer Science I Course Syllabus, Spring 2010: Section 10A, Oser

Instructor: Paul Oser
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Office: Pierce 122A
Hours: (CS 170 only) 2:00 to 3:00 PM on M,Tu,Th,F and "Open-door" policy;

(all Math and CS courses) 3:00 – 6:00 PM on M,T,W,Th

Lecture: MWF 10:40 – 11:30 AM in Pierce 206
Lab: W 2:00 – 3:00 PM in Pierce 206

Web: Blackboard, and http://mathcenter.oxford.emory.edu (for tutorial videos)

Textbook: Java Concepts, 5th Edition (by Cay Horstmann) ISBN: 978-0-470-10555-9
Other Materials: A 1GB (or bigger) USB Flash Drive is required.

(Note: 1GB is more than adequate for what you will do in this course. However, if you would like a free Knoppix Installation at the conclusion of this course, you might want to get a bigger one (I use a 6GB for mine). Of course, this is always something you can pick up later, too. Knoppix is similar to Unix/Linux, an alternative to the windows operating system, and operates in much the same way as what you may use on the Emory main campus if you elect to take CS 171.)

Overview: This course is an introduction to computer science for the student who expects to make serious use of the computer in course work or research. Topics include: fundamental computing concepts, general programming principles, and the Java programming language. Emphasis will be on algorithm development with examples highlighting topics in data structures.

Prerequisites:
There are no prerequisites although some familiarity with email and web browsers will be helpful. Knowledge of high school algebra and basic problem solving skills are assumed. This course is the first of a two semester sequence for computer science majors and is followed by CS 171.

Lab Work / Assignments:
There is one hour of scheduled lab time per week (W 2-3:00 pm in Pierce 206) but students should ***plan on spending considerably more time than that in front of a computer this semester*** (either in the lab or working from home). In the weekly lab, focus will be given to reinforcing concepts learned in lecture by writing programs. Students should make every effort to attend all of the labs, as programming is a skill best learned by "doing". The Java software in Pierce 206 is available to you on the specialty computers in the Library and in the Kaliedoscope Lab, should you not have access to a computer of your own.

Assignments will involve designing, coding, testing and debugging programs based on a written assignment specification. These programs will involve a conceptual understanding of language features

as well as requiring skill with various software tools. With programming it is important to "work smarter, not harder." Brute-force approaches can lead to long, tedious, unsuccessful hours of work. The right approach can help you write correct, easy-to-understand and efficient code with minimal effort. Programs must be completed individually although you are welcome to discuss general principles and concepts about the assignments with other students (and the instructor).

Exams:
There will be two closed-book midterm exams and a final that will test your conceptual understanding of the material and will require some attention to programming details. Doing well on the exams strongly correlates to reading and understanding the textbook and written notes! Questions will sometimes require writing or analyzing short bits of code.

Grading:

Lab Work / Assignments:	35%	(weighted average)
Midterms:	30%	
Final Exam:	25%	
Active Class Participation:	10%	

Late Policy:
Students are expected to be present for all scheduled tests. Any conflicts should be brought to the instructor's attention as soon as possible. If a legitimate reason exists for missing a test – as determined by the instructor – then the test must be taken prior to the regularly scheduled date. In the unusual circumstance where taking the test early is not possible, ***students should be aware that any make-up tests given will be designed to be more difficult to offset the additional time given for study***. Students must provide written documentation in advance of any special accommodations required for testing. This includes additional time or other needs. The final exam cannot be rescheduled.

In general, late programming assignments will not be accepted; however, each student is granted two penalty-free extensions. These extensions must be requested before the project is due, and the length of the extension will be determined by the instructor at the time of the request, based upon the individual assignment being considered. The above policies will be waived only in an "emergency" situation with appropriate documentation and at the instructor's discretion.

Honor Code:
All class work is governed by the Oxford College Honor Code. No collaboration is allowed on programming assignments unless you are asked to do a group assignment. Talking to other students about general Java features used in the programs is OK but ***students should not look at anyone else's code or allow anyone else to look at their code prior to submission***. (Students should be aware that it is actually fairly easy to detect inappropriate collaboration or copying by running programs that analyze submitted programs.)

Every program assignment must have the following comment included at the top of the file.

```
/*
THIS CODE IS MY OWN WORK, IT WAS WRITTEN WITHOUT CONSULTING
CODE WRITTEN BY OTHER STUDENTS. _Your_Name_Here_
*/
```