LANE DEPARTMENT OF COMPUTER SCIENCE AND ELECTRICAL ENGINEERING

CS 110: Introduction to Computer Science
Fall Semester 2011

Course Instructor: Dr. Don Adjeroh
Room ESB 937 (Evansdale Campus)
Tel: 304-293-9681
email: don@csee.wvu.edu
Office Hours: Tuesday 11:00am – 12:30pm; Thursday 11:00am – 12:30pm.

Lab Instructor:
Erin Moore
Office: TBA
Email: emoore22@mix.wvu.edu
Office Hours: TBA

Course Schedule:

Lectures: Tuesday, Thursday: 9:30-10:45am, Rm. 207 ESB, Evansdale Campus

Labs:	**Choose one**		
	Sec 008:	Wednesday	1200 – 1350, ESB 756, Evansdale Campus
	Sec 009:	Tuesday	1100 – 1250, ESB 756, Evansdale Campus
	Sec 010 :	Friday	1000 – 1150, ESB 756, Evansdale Campus

Course web site: http://www.csee.wvu.edu/~adjeroh/classes/cs110/

Purpose

The major objective of this course is to introduce students to basic concepts in computer science, using the **Java** programming language as a vehicle. The problem solving approach is emphasized, with an introduction to structured program development and object-oriented programming using Java.

Expected Learning Outcomes

At the end of this course, students are expected to:

- Have understood important concepts in computer science, such as abstractions, control flow, data structures, etc
- Have acquired good programming skills, and understood good programming practices
- Have understood basic concepts in object-oriented programming
- Have understood the basic steps in formal software development
- Be able to solve problems and program proficiently in Java
- Be able to relate (and apply) the relevant phases in a software lifecycle to their day to day software projects.

Required text:

Cay Hortsmann, *Java for Everyone*, John Wiley & Sons, Hoboken, NJ, 2010.

Assessment			**Important Dates (Estimates)**
Weekly in-class quiz	: 9 %		In-class Test 1: Week of September 26, 2011
3 in-class tests	: 27% (each 9%)		In-class Test 2: Week of October 24, 2011
12 in-lab exercises & 4 projects	: 40%		In-class Test 3: Week of November 14, 2011
Comprehensive final exam	: 24%		Final Exam: Mon. Dec.12, 2011 (11:00–13:00)
Class Participation	: 5% extra on tests		

Grade Assignment

A: ≥ 85; B: 75 – 84; C: 65 – 74; D: 50 – 64; F < 50

Others

Expected Workload

CS 110 is a hands-on course, and the expected workload is relatively high. Prepare to dedicate AT LEAST 5-8 working hours a week to this class (excluding the time spent in the classroom). A minimal prerequisite for the successful completion of the course is a good understanding of programming concepts in general, and Java programming in particular. No familiarity with any programming language is assumed. Laboratory instruction is required in CS 110.

You will be given a class account on the Department's UNIX/Linux workstations and all laboratory exercises and assignments will have to be submitted and run on this platform.

Academic Honesty

Students are encouraged to discuss class topics and analyze problems among themselves. However, collaboration during the implementation of programming assignments, laboratory assignments and tests is strictly forbidden. Copying assignment solutions or written reports (or part of) will not be tolerated. Please, be aware that your submitted programs may be AUTO-MATICALLY compared with each other during the evaluation.

Social Justice Statement

West Virginia University is committed to social justice. I concur with that commitment and expect to foster a nurturing learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration. If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with Disability Services (293-6700).

LANE DEPARTMENT OF COMPUTER SCIENCE AND ELECTRICAL ENGINEERING

CS 110: Introduction to Computer Science
Fall Semester 2011

Instructor: Don Adjeroh
Room ESB 937
Tel: 304-293-9681
email: don@csee.wvu.edu

Weekly Course Schedule

Week	Starting	Topic	Book chapters & reading assignment	Notes
1	August 22	Introduction, Problem solving	Ch1	
2	August 29	Software development methodology		
3	September 5	Overview of Java Primitive Data types	Ch1, Ch2	
4	September 12	Objects and classes (intro.) Selection control structures	Ch3	**Assignment 1**
5	September 19	Selection control structures		
6	September 26	Loop control structures	Ch4	**In-class Test 1**
7	October 3	User-defined methods	Ch5	
8	October 10	User-defined classes	Ch7	**Assignment 2**
9	October 17	Basic GUI (Dialog Boxes) Streams Input/Output in Java	Ch8	
10	October 24	Data structures in Java: Arrays	Ch6	**In-class Test 2**
11	October 31	Searching, Sorting, and Lists Introduction to analysis of algorithms	Ch6	**Assignment 3**
12	November 7	Inheritance and Polymorphism	Ch9	
13	November 14	More on GUIs & Graphics	Ch11, Ch12	**In-class Test 3** **Assignment 4**
14	November 21	**Recess – Thanksgiving break**		
15	November 28	Exception Handling	Ch8	
16	December 5	**DEAD Week** Recursion Revision	Ch 13	**Revision**
17	December 12	Finals Week		**Final exam: Dec. 12, 2011**

Note that the above represents only an estimate of the weekly schedule. The actual date/week that a particular topic is discussed, and the specific topic sequence could vary during the semester.