CSCI 152 –C01 Computer Science I Using Java 4 Credit Hours Fall 2010
Course Syllabus

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Class Meetings: Thursday 6:30 PM to 9:50 PM
Office Hours: Thursday 6:00 PM to 6:30 PM (H318) and after class

Course Description:
An introduction to problem solving using the Java programming language. The course stresses algorithms, object-oriented programming in graphical environments, documentation, testing, and debugging. Topics include hardware basics and number systems, classes, methods, control structures, types, virtual-machine concepts, Internet and client-server computing, human-computer interaction, social, professional, and ethical issues, and general features of programming languages.

Corequisite: MATH.123 College Algebra or minimum score of 2 on the math placement examination.

Course Objectives:
You will be able to do the following:
1. Read and understand Java programs.
2. Use an Integrated Development Environment to develop and execute computer programs.
3. Use a shell window environment to develop and execute computer programs.
4. Analyze a "well defined" problem specification.
5. Design a solution for the problem.
6. Code the computer program in Java.
7. Debug and test the computer program.
8. Document the computer program.

Course Text and Materials:

Text: Savitch, Walter and Frank M. Carrano, Java An Introductuction to Problem Solving & Programming 5th Edition, Pearson Education, Inc, 2009.
The book web site is http://www.prenhall.com/savitch/details.html.

Development Environments: You may use any Java development.

NetBeans: NetBeans (http://www.netbeans.org) is an open source integrated Java development environment. I will use NetBeans to develop and test Java some programs during class. NetBeans can be downloaded from http://www.netbeans.org/downloads/index.html. Download the Java SE bundle.

Eclipse: Eclipse is an open source integrated Java development environment. I will use Eclipse to develop and test some Java programs during class. Eclipse can be downloaded from http://www.eclipse.org/downloads .

Java Compiler: We will use the Java Platform, Standard Edition (J2SE). J2SE is also known as the Java 2 Platform. Eclipse and NetBeans require the J2SE. The J2SE can be downloaded from http://java.sun.com/javase/downloads/index.jsp

Course Expectations:

Office Hours: I am on campus Thursday evenings. I am usually in H318 by 5:30PM. I am available after class. Email is the best way to contact me out side of class. My email address is jomalley@framingham.edu. Contact me when you have problems with the course. Don't ignore the problems.

Lectures: Lectures are used to cover new topics and review topics. Ask questions. Sample programs are used to introduce Java language features and programming concepts. You are responsible for bringing printed copies of the sample programs to class. The sample programs are available on the class web site.

The Programming Assignments are reviewed during the lectures.

Weekly Homework:

1. Read the assigned readings from the text book and answer the review exercises.
2. Study, execute and modify the sample programs covered in class.
3. Print the sample programs for the next class.

Web Site: Programming assignments and sample programs are posted on the class web site. The URL is : http://mysite.verizon.net/jomalley/cs1.

Mid Term Exam Make-up: There is no make-up exam for Mid Term Exams. If you do not take the exam, the Final Exam will count as 50% or of your course grade.

Programming Assignments: There are six Programming Assignments. The Programming Assignment grade is based upon programming style, program testing, program outputs, algorithm, program design, and Java Language usage. The possible grades are 100, 92, 85, 80, 70, 50, and 0.

Late Programming Assignments: Programming Assignments have a due date (usually 2 weeks form the date that the assignment was made) and a late date (usually 2 weeks after the due date). The last Programming Assignment does not have a late date. You are expected to complete the assignment by the due date. All outstanding assignments are due at the last class meeting.

Incomplete Grades: Check with the DGCE for the current rules.

General: Programming is fun. Learning to program takes time and lots of practice. You need to study and understand the sample programs. You need to write many programs in addition to the programs in the Programming Assignments. You need to set aside time to do these tasks each week.

A common problem is that you understand the material in class, but when you need to use the material in a Programming Assignment, you can't. To avoid this problem you need to study and understand the sample programs.

Don't skip lectures to work on Programming Assignments in the lab. You will miss the new topics and fall farther behind.

Talk with me when you have problems with the course work. Ask questions during class.

Course Requirements and Grading Criteria:

15% Midterm Exam	(28 October 2010)
35% Final Exam	(16 December 2010)
50% Programming Assignments	

You can use the class text and your class notes during each exam.

Course Content/Outline:

Class 1:
- Introduction to the Java Language
- Introduction to program development
- Readings: Chapter 1.

Class 2:
- Basic Computation
- Readings: Chapter 2.
- Programming Assignment 1 assigned

Class 3:
- Basic Computation Part 2
- Introduction to NetBeans IDE

Class 4:
- Branching
- Readings: Chapter 3.
- Programming Assignment 2 assigned.

Class 5:
- Branching Part 2

Class 6:
- Loops
- Readings: Chapter 4
- Programming Assignment 3 assigned.

Class 7:
- Loops Part 2

Class 8:
- Defining Classes and Methods
- Readings: Chapter 5
- Midterm Exam Review
- Programming Assignment 4 assigned.

Class 9:
- Defining Classes and Methods Part2
- Midterm Exam (starts at 8:00 PM)

Class 10:
- More About Objects and Methods
- Readings: Chapter 6
- Programming Assignment 5 assigned.

Class 11:
- More About Objects and Methods Part 2

Class 12:
- Arrays
- Readings: Chapter 7
- Programming Assignment 6 assigned.

Class 13:
- Arrays Part 2
- Programming Assignment 7 assigned.

Class 14:
- Arrays Part 3
- Course Evaluation
- Final Exam Review

Class 15:
- Final Exam