

IS600 - Introduction to Information Systems and Implementation

Fall 2007

Syllabus

Instructor: Dr. Sreedevi Sampath

Office hours: Thursdays 1 to 3pm and by appointment

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Class time: Mondays 4.30 to 7p.m.

Class location: MP 008

Required Textbook

Java: An Introduction to Problem Solving and Programming, Fourth Edition, Walter Savitch.
ISBN: 0-13-149202-0

Description

This course introduces the student of information systems to fundamental object-oriented programming concepts. A student of this course will learn the principles of programming, and in particular object-oriented programming principles. Programming principles and constructs, such as data types, common control flow structures, basic data structures, console input/output, and file input/output will be presented. We will also learn several key object-oriented principles, such as inheritance and exception handling. We will use the Java programming language to learn and implement the basic programming and object-oriented principles described above.

Course objectives

The objective of this class is to expose the student to programming in an object-oriented programming language, Java, and to increase the depth of students' knowledge about several implementation issues. Knowing Java will be useful in the students' jobs in IT organizations as developers or managers because it will enable them to code efficiently, communicate effectively with colleagues and understand and improve software development practices in their organizations.

At the end of the course, a student completing this course should have:

- A strong understanding of basic programming principles
- The ability to apply basic programming principles to write programs
- A clear understanding of object-oriented software development
- A strong understanding of the object-oriented programming language, Java, and the ability to write programs in Java using principles of object-oriented program development

Blackboard site

A Blackboard site will be maintained for the course throughout the semester. It can be accessed through myUMBC or at

<http://blackboard.umbc.edu>

The page will contain all project deliverable descriptions, lecture slides, solutions to exams, grades and all announcements pertinent to the course. **Each student is responsible for checking the web page regularly, and for being aware of any information posted there.**

Class format and attendance

Since we have a 2 and a half hour class, the class will be broken into two sessions with a mini-break in the middle. Students are strongly encouraged to ask questions and participate in class activities. While attendance is not required, you are strongly encouraged to attend all lectures. Please note that 5% of your total grade is derived from class participation. If you miss a class, you are responsible for getting the relevant notes and hand outs to help you prepare for the quizzes and exams. Please come to class on time. Tardiness will affect your class participation grade. There will be in-class discussions and material covered in lectures that will not be available on the textbook and on the Web page. You will be responsible for that material in the quizzes and the exams. You are therefore encouraged to attend all lectures.

In case of inclement weather, check the main UMBC Webpage (<http://www.umbc.edu>) to see whether UMBC is closed and classes are cancelled. In the event of such cancellation on an exam day, the exam will be rescheduled and announced to the students by Dr. Sampath. If there is a deliverable due on that day, there will be no extension for the deliverable. You should still submit the softcopy (in PDF) of your deliverable on time. If the assignment has a hard copy deliverable, the due date for the hardcopy of your deliverable will be automatically be before start of class on the day of the next class.

Grading

The main components of the total grade are:

Homework assignments: 20%

Quizzes: 15%

Project: 20%

Midterm Exam: 20%

Final Exam: 20%

Class participation: 5%

Homework assignments

This class will have mainly programming assignments. Typically, the student will have one week to work on the assignment. The assignments are due at the beginning of class (4.30pm) on the day they are due. In each assignment handout, I will specify whether a soft copy or a hard copy submission is expected. If a soft copy is expected, follow the instructions in the assignment handout on how to submit the assignment. If a hard copy is expected and if you wish to drop off the homework before the class, and I am not in my office then leave the assignment in my mailbox or slide it under my door *and* send me an email informing me that you have done so. If you do not receive a confirmation email from me, there is no guarantee that I received your assignment. If you come late to class on a day the homework is due, then you will not be able to turn in your homework. Plan on dropping off the homework in advance, if you think you will be late to class on a particular day. Be aware that you may not have access to my office/mailbox on weekends/in the evenings and plan accordingly. I will not accept assignments sent by email when a hard copy is expected. Late assignments will not be accepted, no exceptions.

Quizzes

There will be a 10 minute quiz at the beginning of every class. The quiz will focus on material taught the previous week. The format of the quiz will be short answer, multiple choice, fill in the blanks, and true or false types of questions. Quizzes cannot be retaken and will be given out promptly at 4.30pm every class.

Project

The course will have one project. More details on the project will be given later in the semester.

Exams

There will be two exams in this course, a midterm and a final examination. Please check the schedule for the dates. In general, make up exams will not be given. If you know that you will have to miss an exam in advance, talk to me about it. If I am given sufficient notice, and I agree

that your absence cannot be avoided, then I can arrange a makeup exam. If you miss an exam due to an unforeseen emergency, then we can arrange a makeup exam if I agree that your absence was due to a bona fide emergency and you can document that emergency to my satisfaction. In all cases, you should be warned that makeup exams are generally more difficult and more prone to errors and misunderstandings than the original exam, simply because I do not have the time to devote to writing a makeup exam as carefully as I do other exams.

Class participation

This portion of the grade is a subjective assessment of a student's class attendance, contribution to class discussions and exercises, the student's attendance, punctuality, willingness to seek help from classmates and from me, and *ability to conduct himself/herself appropriately*.

Getting Help - Questions and Concerns

Email is the BEST way to get in touch with me. I will try to answer your email as soon as possible. When I send out emails to the class on the class list, make sure you are receiving them. **You are encouraged to use your UMBC e-mail account for all e-mail correspondence.**

Academic Honesty

Cheating will not be tolerated in this course. By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to a grade of 0 on the relevant assignment, failure of the entire course, suspension, or dismissal. To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty Handbook, or the UMBC Policies section of the UMBC Directory. Every student should read and fully understand the information given at <http://www.umbc.edu/integrity>

In particular, for this course:

- Cheating will not be tolerated on the exams, assignments or project. Cheating includes gaining specific information about the exam before taking it (e.g. in the case of a make-up exam).
- Plagiarism (misrepresenting as your own work any part of the work performed by another person, including Internet sources) applies to the team project in that the team must actually work with a real (not fabricated) customer organization and must not fabricate any information that should come from that organization. Also, no part of any project completed for any other course or any other semester may be used as part of the project deliverables for this course this semester.
- Academic dishonesty also includes interfering with another student's work or aiding another student to commit academic dishonesty.

Cell Phones, Beepers, and Other Devices: All cell phones and beepers must either be turned off during class (not "vibrate" mode). If you must make a call, please leave the classroom. If you disrupt the class you will be asked to leave the classroom.

Tentative Schedule (subject to change)

Below is a tentative schedule of lecture topics, exams, and homework due dates. Unless otherwise mentioned, all the readings are from the Savitch book. I reserve the right to adjust this schedule for any reason, but I will make every effort to advise you of any changes well in advance. The schedule will be updated on the web page, so please look at it frequently there to make sure you are aware of any changes.

Date	Topic	Reading	Homework
9/3	Labor Day (holiday)		
9/10	Introduction to Java programming	Chapter 1	HW1 out
9/12	Last day to drop without 'W' for graduate students		
9/17	Primitive types, string, console I/O	Chapter 2	HW2 out, HW1 in
9/24	Flow of control	Chapter 3	HW3 out, HW2 in
10/1	Classes and Methods – I	Chapter 4	HW4 out, HW3 in
10/8	Classes and Methods – II	Chapter 4	HW5 out, HW4 in
10/15	More about Objects and Methods – I	Chapter 5	HW6 out, HW5 in
10/22	Using Arrays, Review for midterm	Chapter 6	HW7 out, HW6 in
10/29	Midterm (4.30pm to 5.45pm)		
10/29	Using Arrays (6pm to 7pm)	Chapter 6	HW8 out, HW7 in, Project out
11/5	Programming with Inheritance	Chapter 7	HW9 out, HW8 in
11/7	Last day to drop class with 'W'		
11/12	Exception handling	Chapter 8	HW10out, HW9 in
11/19	Streams and File I/O	Chapter 9	HW11 out, HW10 in
11/26	Dynamic data structures and recursion	Chapter 10, 11	HW 12 out, HW 11 in
12/3	Overview of programming for the web	Handout	HW 13 out, HW 12 in, Project in
12/10	Review for final		
12/17	Final exam (6pm to 8pm)		