Sam Houston State University

Department of Computer Science

CS 146: Introduction to Algorithms and Programming
Syllabus
Fall 2007

General Information

Instructor: Dr. Rekha Bhowmik
Office: AB1 216B
Phone: 294 4785
Email: rbb002@shsu.edu

Course Title: Introduction to Algorithms and Programming

Course Description

This course is an introduction to programming. A software engineering approach to developing computer programs is stressed and object-oriented concepts are introduced. The development of procedures and the writing and testing of programs to implement them is emphasized. This course includes a 2-hour lab-based component. Prerequisites: eligibility for MTH 199, MTH 170, or MTH 142, basic keyboarding and PC skills. Credit 4.

Schedule

Section 3:
Lecture: MWF 12:00 – 12:50 AB1 206
Lab: TH 2:00 - 4:00

Section 4:
Lecture: TTH 9:30 – 10:50
Lab: Wed 8:00 – 10:00

Course goals

At the end of this course the ideal student should:

- Have an understanding of basic programming constructs
- Be able to understand the structure of computational problems and their solutions
- Be able to apply functional decomposition and object oriented analysis techniques to real world problems
- Be able to use the Java programming language to implement designed solutions
- Be able to professionally document code
- Have an understanding of the issues surrounding ethical software development

Grading Criteria

- three exams: total 15% of overall grade
- 1 final exam: 10% of overall grade
- 14 lab assignments: 25% of total grade
- Individual programming assignments: 40% of overall grade
- Attendance and quizzes: 10% of overall grade

Projects

The individual programming assignments will consist of six projects based on work done in class including:

- Compiling and executing simple programs from the command line
- Compiling and executing simple programs in BluJ
- Fundamental building blocks, sequencing, selection and iteration
- Information hiding: classes and methods, passing parameters
- Class and method overloading
- Inheritance

Textbook

Starting out with Java – From Control Structures Through Objects (3rd Edition) Gaddis, T. ISBN 0321479270

Supplementary information
Java On-line tutorial: java.sun.com/docs/books/tutorial/
BlueJ O-nline tutorial: www.bluej.org/tutorial/tutorial-201.pdf

Useful Dates
Oct 10, 2007: Last drop date without receiving an F
Dec 6, 2007: Last day to resign from the university

Attendance Requirements
Student attendance is mandatory for all class sessions. Absence from any and each class period will result in a 5% reduction in overall grade. Documented medical related absences are exempt from this policy. Students may submit 1 extra credit assignment in lieu of a single undocumented absence. Students with documented medical related absences will be expected to initiate the process of completing any make-up work.

Tests
There are four test and a final exam. Each test covers the material for that section of the course. The final exam is a practical exam that requires application of the techniques discussed in class to solve a set of forensics problems. Students are required to take all four tests and the final in order to obtain a grade in the class.

Academic dishonesty
All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

Classroom Conduct
Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones and pagers must be turned off before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

Visitors in the Classroom
Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.

Americans with Disabilities Act
Students with disabilities covered by the Americans with disabilities Act should go to the Counseling Center and Services for Students with Disabilities (SSD) in a timely manner to obtain the documentation required. Students are responsible for initiating the process of documenting the need for an accommodation under the ADA act.

Religious Observance
University policy allows for student to observe religious holy days without penalty. If you intend to miss class as a result of the observance of a religious holy day or as a result of the necessary traveling time required for religious observance, such an absence will not be penalized. As a courtesy, it would be appreciated if you notify the instructor in advance in writing, of the dates and times of class sessions that are to be missed. Students absent from class as a result of religious observance are required to submit any due assignments immediately on their return to the classroom. Makeup tests and quizzes will also be provided on return to the class.

Office Hours: to Be Arranged