# Syllabus – Fall 2007 CS 146: Introduction to Algorithms and Programming

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Office Hours: MW 1:00 – 3:30pm;

TTh 9:30 - 12:00pm; or by an appointment

### **Textbook:**

Starting out with Java<sup>TM</sup>: From Control Structures through Objects (3<sup>d</sup> Edition), by T.Gaddis, Addison-Wesley, 2007; ISBN 0321479270

# **Recommended Supplements:**

Java Online Tutorial:

http://java.sun.com/docs/books/tutorial/index.html

BlueJ Online Tutorial:

http://www.bluej.org/tutorial/tutorial-201.pdf

**Outline:** This course is an introduction to the field of computer science and a first course in computer programming. Students in this course will learn to

- solve problems using an *algorithmic* approach and
- implement the solutions in the Java<sup>™</sup> programming language.

The course covers fundamental concepts of *Object-Oriented Programming*. The topics to be covered include **data abstraction**, **classes** and **objects**, **state** and **behavior**, **information hiding** and **data encapsulation**, **methods**, **message passing**, **inheritance** and **subtyping**, **polymorphism** and **software reuse**, **overloading** and **overriding**, and **dynamic binding of method calls**. These standard features of OOP will be further studied through the programming exercises and examples in the Java.

We will be using an integrated development environment, *BlueJ*, for writing and executing the code. This course includes a **mandatory 2-hour lab** component; lab exercises will be held **every Wednesday** @ **8-10am** in **LDB 407**. In addition, **every Friday** the class will meet in **LDB 203** computer lab.

# **Prerequisites:**

Eligibility for MTH 199, MTH 170, or MTH 142; basic key-boarding and PC skills; in particular, basic familiarity with the MS Windows operating system.

Projects: At least six programming assignments will be given throughout the semester. These projects will be based on the material covered in class. I expect to see your <a href="https://www.no.individual.work">own individual work</a> on these, cheating of any kind will not be tolerated (please refer to the last page). Late submissions will incur considerable (up to 20%) reduction of the grade. Submissions more than <a href="https://www.no.individual.work">one week</a> past the due date will not be accepted under any circumstances.

**Exams:** There will be three in-class exams during the semester and a comprehensive final exam at the end of the semester.

Exam 1 date is September 19 (tentative) Exam 2 date is October 24 (tentative) Exam 3 date is November 28 (tentative)

Final Exam date is December 12 @ 11am (firm)

While the in-class exams are not designed to be comprehensive, you will find that material in later chapters requires familiarity with topics from earlier chapters. Makeup exams will be given only in the <u>extreme</u> circumstances. You have to arrange for a makeup exam <u>prior</u> to the scheduled exam, and provide documentation of an excused absence as early as possible.

#### Attendance:

In accordance with **University Policy**, attendance will be checked at the beginning of each class (see <a href="http://www.shsu.edu/~vaf\_www/aps/800401.html">http://www.shsu.edu/~vaf\_www/aps/800401.html</a>.) However, no points will be awarded or subtracted based on your attendance. You are responsible for all material covered in every class, regardless of whether you attended or not. You are also responsible for obtaining any missed assignments.

#### **Classroom Rules of Conduct:**

While in class, it is important that your attention is focused on the subject matter at hand; you may not read any unrelated material or engage in conversations not relevant to the content of this course. As a courtesy to others in the class, please make an effort to silence cell phones and pagers while class is in session; any use of cell phones or other electronic devices during an exam will result in dismissal from the exam without the possibility to make up for it.

Inappropriate behavior in the classroom may result in a directive to leave the classroom, loss of credit for that day's course work, or being reported to the Dean of Students for disciplinary action in accordance with university policy.

Weights: 10% – each of Exam 1, Exam 2, and Exam 3

15% – Final Exam 10% – Quizzes

10% – Mandatory weekly lab

10% – Additional practical exercises (Friday classes in LDB 203)

25% – Individual programming assignments

## **Grading Scale:**

Based on a point system, with a total of 1000 points possible:

900 points and up — A 800 – 899 points — B 700 – 799 points — C 600 – 699 points — D Below 600 points — F

**FYI:** Last date to drop a course without an "F" is **October 10, 2007**.

Last day for Resignations is **December 6, 2007** 

Fall semester grades will be available at <a href="http://www.shsu.edu/saminfo">http://www.shsu.edu/saminfo</a> (SamInfo) after **December 17, 2007**.

# **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."

(For a complete listing of the university policy, see <a href="http://www.shsu.edu/administrative/faculty/sectionb.html#dishonesty">http://www.shsu.edu/administrative/faculty/sectionb.html#dishonesty</a>)

The SHSU policy on academic honesty is very clear, and needs no further explanation. Nevertheless, it's worth pointing out that *either* (a) submitting anything other than your own original work, or (b) allowing your own work to be submitted by another student will be considered academic misconduct. Any student found to have been involved in academic dishonesty, as defined by SHSU Academic Policy Statement 810213, will receive a course grade of F, and possible referral to the Dean of Student Life for further disciplinary action.

### **Student Absences on Religious Holy Days Policy**

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). This request must be made in the first fifteen days of the semester or the first seven days of a summer session in which the absence will occur. The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

## **Students with Disabilities Policy**

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk to me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the Counseling Center. For a complete listing of the university policy, see <a href="http://www.shsu.edu/~vaf\_www/aps/811006.html">http://www.shsu.edu/~vaf\_www/aps/811006.html</a>