

COURSE SYLLABUS

CS 147

Programming Algorithms and Data Structures

Dr. Tim McGuire

4 Credit Hours

Spring Semester 2007

Section 01 – AB1-206, 10:00a.m. – 10:50p.m., MWF; Also a required lab section

Office: AB1-212G

Office Hours: 9:00 – 10:00 a.m. MWF; 9:30 a.m – noon, TTh; 1- 2p.m MW; other times by arrangement

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Catalog Description: This course is a continuation of CS 146 and emphasizes the relationships between the data objects in computer programs. Re-usability is stressed through the use of generic data abstractions. This course includes a 2-hour lab-based component.

Prerequisite: CS 146 or equivalent, MTH 199 or 170 or 142.

Methodology: Lecture with outside laboratory assignments. The examinations will cover the material in the lectures, and will require that the student understand, apply, and extend that knowledge.

Objectives: This course will be an introduction to the design and analysis of computer algorithms and to abstract data types. In addition, topics in intermediate programming and software engineering will be covered. The modular approach introduced in CS 146 will be continued. Along the way, such topics as the software lifecycle, computer organization and architecture, structured programming, networking, and operating systems will be addressed in a manner appropriate to the level of the course.

Required Textbook and Supplies:

- Frank M. Carrano and Janet J. Prichard, *Data Abstraction and Problem Solving with Java: Walls and Mirrors*, 2nd edition, Addison-Wesley, 2006.
- Additional materials will be available from the course web page.

Grading: There will be 3 major tests during the course of the semester. Each will count as 15% of the grade. The lab component will count as 25% of your grade. A comprehensive final exam will count as 30% of your grade. Late lab assignments will be accepted up to one week from the due date with a 20% late penalty.

The following grade scale is used:

90	≤	A	≤	100
80	≤	B	<	90
70	≤	C	<	80
60	≤	D	<	70
0	≤	F	<	60

Absences: In accordance with [University Policy](#), regular attendance is required, 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. It is your responsibility to obtain notes, assignments, etc., from fellow class members if you miss a class. [Absences for religious holy days](#) must be scheduled with the instructor in accordance with official university policy (see http://www.shsu.edu/~vaf_www/aps/pdfpolicies/861001.pdf .)

Academic Integrity: The [Student Code of Conduct](#) states that the University expects all students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity 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. Furthermore, 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 examinations or other academic work which is to be submitted, plagiarism, unauthorized collusion, and the abuse of resource materials. All students must fully develop their own solutions. You are not allowed to work together on any assignment. Do not copy anyone else's assignment and do not allow your assignments to be copied. Cheating on any portion of an assignment will result in a grade of zero for the entire assignment..

Proper Classroom Demeanor: In compliance with the [University Code of 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. Please turn off or mute your cellular phone and/or pager before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, using inappropriate language, reading newspapers, sleeping, talking among each other at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in, minimally, a directive to leave class, 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.

Americans with Disabilities Act: According to [University Policy](#), request for accommodations must be initiated by the student. A student seeking accommodation should go to the Counseling Center in a timely manner.

Visitors in the Classroom: Occasional visiting of classes by responsible persons is allowed with prior arrangement with the instructor, as long as it does not interfere with the registered members of the class or the educational process.