

AP Computer Science 11.0160741

<http://cs.spx.org>

Fall 2008

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Course Materials: *JAVA Software Solutions for AP* Computer Science* by Lewis, Loftus & Cocking © 2004. You are expected to purchase the textbook before the second class meeting. In addition, it is highly recommended that you purchase a 2.0 GB USB flash drive.

Course Description: An AP Computer Science course is intended to serve both as an introductory course for computer science majors and as a course for people who will major in other disciplines that require significant involvement with computing. AP Computer Science is an advanced course in computer programming and problem solving. Students will study computer systems, primitive data types, standard computer algorithms and data structures in an object-oriented environment using the Java programming language. This advanced course follows the curriculum set up by the College Board for the AP Computer Science course. Although students will be using the Java programming language, programming skills are the focus of this course. All students enrolled in this course are required to take one of the two levels of the AP Computer Science tests in the spring. The prerequisite for this course is Computer Programming 782 or instructor approval.

Course Goals: After successfully completing the course, students will be able to:

- ÿ design and implement computer-based solutions to problems in several application areas.
- ÿ learn well-known algorithms and data structures.
- ÿ develop and select appropriate algorithms and data structures to solve problems.
- ÿ code fluently in a well-structured fashion, using the programming language Java.
- ÿ use standard AP Java classes.
- ÿ read and understand a large program and a description of the design and development process leading to such a program.
- ÿ identify the major hardware and software components of a computer system, their relationship to one another, and the roles of these components within the system.
- ÿ recognize the ethical and social implications of computer use.

Method of Instruction: This course is primarily “hands on” computer programming instruction, consisting of instructor led lectures, demonstrations, discussions, lab exercises and projects; field trip(s) and guest speaker(s) may be added as additional resources.

Class Attendance and Participation: Punctuality and attendance are important to successful completion of requirements for this course. For that reason, attendance will be taken at each class meeting. The class participation portion of the course evaluation will be based on the following items: punctual attendance to all class meetings, respect for others, participation in class discussions and assignments and appropriate care of computer equipment. *Note: Students with disabilities who require reasonable accommodations in order to participate in course activities or meet with course requirements should contact and notify the instructor.*

Class Portfolio: The materials developed in fulfilling assignments should be carefully stored and organized inside virtual folders, which will be graded at the end of the class term.

Article Reports: To enhance learning in the area of computer science, you are expected to read journal, newspaper, magazine, or internet articles that relate to the field of computer science. For each article you select, post the following information on the course's discussion board (<http://atlraining.com/forum>): two or three sentences of summary, at least five sentences of your reflection on the topic and a reference in APA style. Article reports are due at 10:00 p.m. on Thursdays.

Classroom Rules: Each student is expected to obey and follow all rules and regulations, as set forth by the student handbook provided by the school; the highest principles of academic honesty and integrity will be strictly enforced. Violations of academic honesty represent a breach of the school's expectations and will be regarded as a serious matter. Furthermore, if a student has issues regarding any aspects of this class, he or she needs to first contact the instructor; a failure to following this professional practice will result in negative participation points and disciplinary actions. Students should be in the classroom, seated and prepared to learn before the bell rings. All students are expected to treat each other and the instructor with respect at all times.

The policy about no late work being accepted will be strictly enforced. When a student has an excused absence, it is his or her responsibility to make sure all assignments are completed in a timely fashion. All assignments not submitted because of an excused absence are noted with zero points in the grade book and must be completed no later than one (1) day for each class session not present, for a maximum of three days, after the student's return. Additionally, if a student returns on the day of a quiz, test or an exam, he or she is expected to complete it during class time, unless other arrangements with the instructor have been made.

Evaluation/Assessment:

Class Participation.....	20 pts.
Article Reports	25 pts.
Portfolio	25 pts.
Quizzes	50 pts.
Lab Assignments/Programming Projects	130 pts.
Unit Tests.....	150 pts.
Comprehensive Final Exam.....	100 pts.

Grading Scale:

A	90-100
B	80-89
C	74-79
D.....	70-73
F.....	0-69

Note: *The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.*

Student Name (Print): _____ Course: _____ Period: _____

I, the undersigned, have read Mr. Ghebru's syllabus. I agree to adhere to all the terms within.

Student Signature

Date

I, the undersigned, have read Mr. Ghebru's syllabus. I agree to help my son/daughter/ward adhere to all the terms within. In addition, I will do my best to maintain contact with Mr. Ghebru so that my son/daughter/ward can do his/her best in this class.

Parent Signature

Date

Parent E-mail