

AP Computer Science: Java

2007-2008

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Website	http://www.paly.net/~sfriedla/APCS
Textbook:	<i>Fundamentals of Java</i> , Lambert • Osborne <i>Java Methods AB Data Structures</i> , Litvin
JDK :	<i>JDK 1.5 (aka 5.0):</i> http://java.sun.com/javase/downloads/index.jsp
IDE:	<i>Eclipse:</i> http://www.eclipse.org/downloads/ or <i>Netbeans</i> (included with JDK)



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Course Description:

This course covers the AB-level curriculum as described in the College Board's *Advanced Placement Course Description for Computer Science*. The up-to-date course description and information can be found at [the College Board's web site](http://www.collegeboard.com). The AB course is roughly equivalent to the college curriculum and may receive a one-year credit in college (note: freshman will not receive college credit). Check with your college(s) of interest to learn what type of credit is offered!

Objectives:

- Understanding the importance of object oriented approach to problem solving.
- Learning common algorithms and data structures.
- Learning to code fluently in Java in a well-structured fashion.
- Preparing for the AB-level AP exam in computer science.

Classroom/Computer Lab Rules And Expectations:

- Be prepared everyday. This means you need to bring your:
 - Textbook(s)
 - Completed HW
 - Completed Projects

- Be polite and respectful at all times.
- Be on time. Tardies prevent the class from starting on time and cut into your programming time. You will be dropped on your **eighth** tardy.
- Students may use the computers, printers, scanners for school-related work only. The computers **ARE NOT** for **game playing, chatting online, or visiting non-Java related websites**
- **No food or drink in the computer lab. NO EXCEPTIONS!**
- Students may not change desktops/screens/internal settings on computers.
- Students will abide the District Internet Use Guidelines.
- All rules for classroom behavior as outlined in the Student Handbook will be enforced in the computer labs.
- During lecture time, you must turn OFF the monitor (not the computer).
- Students must save all work to their digital locker and/or personal flash drive each day.
- It's a good idea to email yourself a copy of the file(s) you are working on for backups.

Students are expected to attend class everyday and to do all assigned problems. If group work is assigned, all members of a group are expected to work together. ***Students must maintain a C- or better to remain in the second semester of the course.***

Grading: The course grade will be based on the following:

<i>Homework Assignments</i> *	10%
<i>Program Assignments</i> **	25%
<i>Tests & Quizzes</i>	65% (<i>Final = double test grade</i>)

* Homework will be a combination of written assignment, preparation for in class programming assignment, and assigned reading from the textbook or website. Since this is an AP course, homework can take anywhere from 30 to 90 minutes per night. (Homework is usually pretty quick first semester and much longer second semester.) Homework should be headed as follows:

1. Name
2. Date
3. Period
4. Page
5. Problem Numbers
6. Assignment #
7. Focus time - how much focused time spent on HW
8. Solved problems with **all steps shown**
9. Circled problem numbers that were difficult

Page 206 #1-5, 17-21, 36-41 Assignment #6	Scott N. Friedland 8/28/2001 Period 2 FOCUS TIME:
1.	
2.	
3.	

If homework is not headed properly, it will be returned without credit. You will receive two late homework passes per quarter. These allow you to turn in any homework up to 1 week late. These late passes do not apply to programs.



** Programs are graded based on programming style, syntax, efficiency as well as executability. At certain times, I will check your code in class. At other times, I will have you email me the source code for me to run on my own machine.

- 1) All programs should be named according to the projectx_x.java convention. E.g. project3_1.java (This should also be the name of the main class, i.e: public class project3_1 {)
 - a. If the project name doesn't fit this convention, ask me what the project name should be.
- 2) All programs should start with a multi-line comment indicating your name, date of completion, and any extra credit features you want me to examine
- 3) Programs may be submitted late but will earn rapidly diminishing credit based on lateness
- 4) Programs that do not compile will be summarily rejected until fixed.
- 5) You may collaborate on IDEAS with other students, but you **MUST NOT DIRECTLY** share code.
 - a. If there is a suspicion of copied code, this falls under the academic honesty policy and you will have to prove the code was not copied. This can be difficult to do, so don't put yourself in a situation you can't get out of!

The following percentage scale will be used in determining final course grades.

87.5% to 100%	A	You are responsible for any make up work (assignments and/or tests) that you missed if you have excused absences. Make-up work should be submitted within the same number of days absent. There is no make-up for quizzes. Your quiz grade will be replaced by your test grade on that chapter.
76.5% to 87.4%	B	
65.5% to 76.4%	C	
54.5% to 65.4%	D	
54.4% or below	F	

Final examinations count as two tests.

Note 1: If you are absent only on the day before the test, you will be expected to take the test on the scheduled day.	Note 2: If you know of an absence on a test day in advance (such as athletics or a field trip), you <u>do not</u> get to take the test late. It is <u>your</u> responsibility to have the test completed <u>before</u> your outside activity occurs.
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Friedland Final Thoughts:

While this course can be time intensive, it can also be extremely rewarding. As a math teacher, I am often the "sage on the stage." However, I believe computer science calls for a "guide on the side" approach. The best revelations occur through self-discovery. Therefore, put your best effort forth and let me know whenever I can help. Over the past four years, 42 of my students have taken the APCS AB exam and have earned an average score of 4.64 with 41 out of 42 students passing and 76% earning a 5. So relax, work hard, have fun, and good things will happen when the AP Exam rolls around on Tuesday, May 6th!