

AP Computer Science A

Course Outline

Michael Lew

TEXT: Barron's AP Computer Science A (7th Edition)

INSTRUCTOR: Mr. Michael Lew
mlew@loyolahs.edu
Phone extension: 3039
<http://thecubscientist.com>

COURSE OVERVIEW:

The purpose of this class is to introduce the student to the object oriented programming paradigm using the Java language. Concepts such as classes, objects, inheritance, polymorphism, and code reusability will be covered. Individual hands-on laboratory work will help solidify each concept taught. Students will complete a long-term programming project and will create a formal presentation demonstrating the project.

COURSE OBJECTIVES:

The student will:

1. develop an understanding of the concept of a class and an object.
2. develop an understanding of how objects model real world objects.
3. implement inheritance to construct an object inheritance hierarchy.
4. implement polymorphism to process collections of objects.
5. develop an understanding of algorithms and algorithmic processing.
6. study and extend the AP Labs (Magpie, Picture, and Elevens).
7. design and implement a long-term programming project and formally present the project.

GRADE ALLOCATION:

Personal Points:	5%
Quizzes	20%
Programs	25%
Tests	50%

GRADING SCALE (all numbers are in percent):

A	Grade ≥ 95	D+	$67 \leq \text{Grade} < 70$
A-	$90 \leq \text{Grade} < 95$	D	$63 \leq \text{Grade} < 67$
B+	$87 \leq \text{Grade} < 90$	D-	$60 \leq \text{Grade} < 63$
B	$83 \leq \text{Grade} < 87$	F	Grade < 60
B-	$80 \leq \text{Grade} < 83$		
C+	$77 \leq \text{Grade} < 80$		
C	$73 \leq \text{Grade} < 77$		
C-	$70 \leq \text{Grade} < 73$		

SENIOR PROJECT MEETINGS:

There will be NO on-campus meetings during the month of January during the Senior Project, although there will be a large-scale programming assignment assigned during this time.

Advanced Placement Computer Science Personal Point Agreement

I understand that at the beginning of each semester I will receive 100 personal points, which is part of my total point total for the semester. I will be able to maintain my 100 points of “personal points” unless the any one of the following rules are violated:

1. BE A NICE GUY – Do NOT disrupt class (not taking notes, talking during lectures, horseplaying in lab, eating/drinking in class or lab**, inappropriate language, etc.)
2. BE A GOOD STUDENT – Raise your hand before speaking in class, bring all class supplies to class (book, notebooks, pencil, pen, calculator), bubble in name on scantrons for tests and quizzes, use electronic devices for physics purposes only. Do not use classtime to sleep, go to the bathroom* or get water**.
3. BE A NEAT PERSON – Pick up any new/existing trash in your area, place all lab equipment back in its original location, place computers back into laptop cart and plug in power adapters when you are done using the computer.)

*Each student will be allotted two “bathroom passes” per semester.

** Each student may bring a bottle of “pure, non-flavored” water to class to drink in classroom area.

The first violation of these rules will result in a 10 point deduction from your “personal point” total. Each successive violation will result in a deduction of points in a geometric fashion (i.e. second violation = -20 points, third violation = -40 points, fourth violation = - 80 points, fifth violation = - 160 points...).

It is therefore possible to have a negative “personal point” total which will be averaged in to your point total for the semester.

I completely understand the above violations and rules for point deductions.

Name: (print) _____

Name: (sign) _____

Date: _____