

# Advanced Placement Computer Science

Teacher info:

Mr. Mike Efram

Room: 49 (class) / 51 (lab)

e-mail: [mefram@husd.com](mailto:mefram@husd.com)

Web page: [www.mrefram.com](http://www.mrefram.com)

*“Seriously changed my thoughts on what to study in college and beyond.”*, Colin Deas, 2011  
*“I’ve started making life decisions based on ‘returns’ of ‘if’ statements. It teaches a practical way of thinking.”* Kaeleigh Reynolds, 2011  
*“Better than any class you’ve ever taken...”* Mark Beck-Doss, 2011  
*“It makes you think differently...”* Dina Shatnawi, 2001

## 1. Course Description

Welcome to AP Computer Science. I hope this class will be interesting and enjoyable, as I will do my best to make it so. In this class, you will learn how the parts of a computer work together, what it means to program a computer and how to do it, and you will have ample opportunity to solve problems using a computer.

This is a class in problem solving using a computer and a programming language called Java. The class will focus on you learning how to program a computer. The first semester will introduce you to the basics of programming, including the structures needed to make decisions, iterate, and the ways to represent data. The second semester will focus heavily on programming with larger projects and the Advanced Placement Exam. The exam is scheduled for Friday, May 17<sup>th</sup> @ 8:00AM.

This class will have some lectures, some activities to demonstrate an idea, and lots of lab time to work on your programs.

**There is a link to a detailed syllabus on my web site.**

## 2. Our Textbooks

We will use two textbooks this year, one we will check out of the library and the other free and online. By using an online textbook, you are able to access your textbook wherever you are in school (without having to carry a heavy text), we can update when things change (with technology, things change fast!!), you have access to a free textbook for future use, and we save the school the money that it costs to replace textbooks.

Textbook (provided) Litvin, Maria and Gary, **Java Methods A & AB, Object-Oriented Programming and Data Structures, AP Edition**. Skylit Publishing, 2006.

**Java Au Naturel**, This book is available for viewing online or you can download the entire book to your local computer. You need to have Adobe Reader installed (free at: [www.adobe.com](http://www.adobe.com)).

**THERE IS A LINK TO THE BOOK ON MY WEBSITE!!!**

With both of these books, you may print your own versions, but please do not print on school computers.

## 3. Optional Software for your home computer:

You will not be expected to do any programming **on a computer** at home (I cannot expect that every student has a computer at home). If you are interested though, you can install the software to compile and run your programs.

I have created a document that will give you step-by-step instructions in how to do this and will give it to you after our first day in the computer lab.

#### 4. Tardy Policy

Schoolwide tardy policy.

#### 5. Grading Policy

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1) 25% - Programs

Includes:

25% - Programs

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2) 60% - Tests and Quizzes

Includes:

40% - Unit Tests

20% - Quizzes

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3) 15% - Homework

Includes:

15% - Homework

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Grading scale	92 - 100	A	77 - 80	C+
	90 - 92	A-	70 - 77	C
	88 - 90	B+	67 - 70	C-
	82 - 88	B	60 - 67	D
	80 - 82	B-	<60	F

#### 6. Homework and Classwork Requirements

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##### Programs

You will explore the ideas of each unit with 1 to 3 programs. These programs should be well documented (we will discuss this soon) so that another person can understand what you were trying to do. This is a large part of your grade because it is a large part of what you should be learning in this class.

Although I will not require you to have a computer at home to work on these programs, I will expect that some work be done on programs **before** arriving to class so that you will have ample time to type and correct (debug) your program.

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##### Quizzes/ Tests

In the format of the AP Exam. (Multiple choice and open response questions) Expect a short quiz every week and a large exam every grading period.

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##### Homework

Homework will include some reading and some questions from the reading and lessons. As an AP Reader, I have realized that you as students need to be real masters of your trade. I will be assigning weekly assignments that will be followed by a short quiz.

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##### Special Assignments

Rite of Passages – There will be three Rite of Passages in the school year. Logic and Conditionals, Strings, and Arrays. These are graded as “Super-Quizes” (double the points)

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#### 7. Required Materials:

- Notebook
- USB Flash Drive (provided for those who do not have one)