Welcome to AP Computer Science!

Please sit where you want

Mrs. Donaldson, Room I-4

Go Bears!

- Math Major at UC Berkeley
- Taught many years in district
  - Work Skills, Algebra, Geometry 9, AlgII/Trig, Computer Science, AP Computer Science, AP BC Calculus, Mutli-variable Calculus
- Took time off to be home with daughters
- Math/Science/Tech writer for *education.com*

History of APCS at M-A

- I took over CS in 1993 - Pascal language
- We added APCS in 1994
- We had 2 classes - Intro and AP
- In 2001, I left to be home with my daughters

Oh no!

- When I came back in 2014, we only had APCS - NO Intro!
- This was too hard for many students with no programming experience
- I felt bad - it wasn’t fair that our only CS class was JAVA - too hard!
- I made it pretty easy to get an A

WE NEEDED A BRIDGE

- I learned that it doesn't work for most students to jump straight into JAVA. It's like trying to learn Calculus before Algebra.
- I got the school to add AP CS Principles. Now, beginning programmers can take a class at the right level. Yay!!!

You are the top 15%

- You signed up for rigor!
- We can now make the JAVA class what it's truly meant to be.
- We'll pick up the pace
- We'll go deeper into the topics
- We'll have more time for AP practice
- Passing this exam will give far more college credits than CSP

Summer Assignment: JavaScript

- The Khan Academy's JavaScript lessons were the perfect introduction to learn programming at your own pace.
- I hope you had a chance to look at the lessons.

Any Questions?

- About the summer assignment?
- About the year?
- About anything?

Class Rules

- Be respectful of me, of your peers, and of the classroom.
- Follow the District Technology Policies
- No food or drink. No water bottles on computer tables.
- No cell phones (M-A rule)
- You may use the bathroom when you need. Wait until lecture is over, and then get the pass.
- **Start the day by stabilizing your wobbly computer.**

Expectations

- Make mistakes! This may be the first class you've ever taken where failure is encouraged. If you fail, it means you tried. And once you're trying, you can keep trying and fixing until your program finally works. We all experience failure in our lives - the defining value of successful people is the ability to shrug it off, analyze what went wrong, and move forward. Our class is a good place to practice.

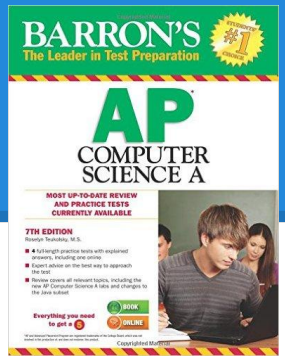
Expectations

- Participate! Ask questions, try new ideas, and raise your hand when I ask a question even if you're not sure you're right.
- Help each other! We have students who have never done any programming, and students who have been programming since they were little kids. The best way to get us all rolling smoothly is for us to help each other.

Expectations

- This is a college-level class. I won't look over your shoulder.
- If I ask you to watch a video, only you will know if you did it. I won't ask if it's not important.
- Every minute in my classroom needs to be spent on CS
- If you finish the required program, use the time to challenge yourself with an extension. Think of something interesting, and see what you can do! That is where the REAL learning happens.

Expectations



- In order to do well on the AP Exam, we'll need to write some of our programs on paper. This will feel annoying but it's super important.
- After Christmas...buy Barron's *AP Computer Science* Prep Book, 7th addition
- No need for dedicated binder - just a section of another one

One more thing...I Get It

- My daughter graduated from Carlmont. (Now a CS major at Cal!) Her toughest classes included APUSH, AP BC Calc, and AP Chem, and APCS. She did great, but the level of work was torture for her *and* the whole family
- I understand how much pressure you are under. I will be thoughtful about the amount of work I assign. It needs to be enough to uphold the AP standards, but not more than is necessary.
- If you are having a hard time with your overall load, come to me! I'll work with you.

Where to find Information

- School Loop for assignments and grades (under AP Computer Science)
- cdonaldson@seq.org
- MrsDonaldsonClasses.wordpress.com

What is Computer Science?

- Computer Science is learning how to tell the computer to do what you want it to do
- A variety of languages have been developed that people can use to write programs that create computer applications.
- Each language has its own strengths, but the structure behind all of them is similar. If you learn one, it's pretty easy to learn more.
- The College Board has selected JAVA to be our programming language.

Syntax

- Begin the Syntax section of our class Notes.
- Write “Syntax” at the top
- We’ll keep a list of terms and defintions, like a dictionary

Syntax

Programming

Writing a series of commands in a computer language. It's like making a to-do list for a computer.

Syntax

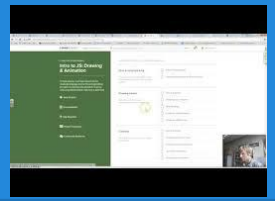
JavaScript

A programming language commonly used in web development. It was originally developed by Netscape as a means to add dynamic and interactive elements to websites. Its name is deceptive: it is more like C than like JAVA.

Let’s get started on the computers!

- Log into my web page: https://MrsDonaldsonClasses.wordpress.com
- Find the link to “Socrative” under AP Java
- Enter “Donaldson” for teacher
- Answer the survey questions

When you’re done!



- Open Up your Khan Academy Summer Assignment
- Show someone near you your favorite project
- Raise your hand if you have questions for me

Homework: Prep for tomorrow

- Look over your Summer Assignment
- Tomorrow we will do a new JavaScript project.
- Review the shape and color functions, and the draw function