AP Computer Science Principles
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Course Introduction

Welcome to AP Computer Science Principles. This is a brand new course that explores computers and their connection to the world around us. In this course you will understand how computers work, how they connect to the world at large, and how to use computational thinking to create what's called "computational artifacts."

Two of these computational artifacts will be sent to the College Board for grading and are part of your AP Exam. The other part (60%) will a multiple choice exam in May. Your two computational artifacts will be due separately throughout the they year.

The first, the "Explore Task," will be due right before winter break. You will be given 8 hours of in class time to work on this task. The second, the "Create Task," will be due at the end of April. You will be given 12 in class hours to work and this will be the last requirement of the course. Details, including rubrics, about how to accomplish these projects will be discussed, and practiced leading up to work time and due dates.

Being a CS course, you will spend considerable time in front of a computer. It is also expected that you are able to access the online portions while you are not at school. If this is a difficulty for you, please come see me so we can work on an acceptable solution.

You will also need to access a variety of online tools:

- You will need access to your school student account. Figure this out on day one! We will be using google drive a lot!

- You will need to join our class at classroom.google.com. See me for help joining the class

- Create an APCSP (or whatever you want to call it) folder on your google drive (Note, google classroom does this for you!!) You will need to keep a portfolio of all the computational artifacts you will create in this class.

- You will also need an account at snap.berkeley.edu. We can do this later though.

- There are a couple other things, but we will discuss them as they come up throughout the year.

- If you have a personal laptop, I highly recommend bringing and using it for class. If security is an issue, it can be stored in my room. However note that only a laptop with Windows or Mac OS will be sufficient to use through the whole course. Chromebooks are not recommended, though a great deal of the course can be accessed and completed using one.

Grading

It will be difficult to pass this class and do well on the AP Exam without consistently working on the material. With that in mind, you will be graded on participation and progress through our curriculum. In addition there will

be quizzes, exams, and projects designed to address and assess the course objectives. The approximate course weighting is as follows (and is subject to change with ample notice!):

- Classwork/Homework   20%
- Quizzes   20%
- Exams   30%
- Projects   30%

Resources
Class resources will generally be give out or posted on google classroom as needed. So be sure to check that regularly.

Feel free to contact me by email, I check that regularly. Also DM me on twitter - @TheGoudeAbides

Text - The textbook that we are using is a free online pdf:

"Blown to bits : your life, liberty, and happiness after the digital explosion"

The book is available for free download here: http://www.bitsbook.com/excerpts/. I will not be providing you with a hard copy of assigned reading unless you ask before hand.

There will be other supplementary material provided throughout the year.

Course Outline
The class has 8 units that begin with the basics of computers and end with your end of course project.

Unit	Topic	Approximate Date
0	Introductions- basic computer info, intro to snap	Trimester 1
1	Computational Thinking - Algorithms	Trimester 1
2	Programming	Trimester 1/2
3	Computing Innovations - Explore Task Project	**Due 12/20/2018**
4	Data and Data Representations	Trimester 2
5	Digital Media Processing	Trimester 2/3
6	Big Data and Our Digital World	Trimester 3
7	Create Task Project (end of course project)	**Due 4/22/2019**

Behavior
Standard classroom behavior is expected. Be respectful...of yourself, your classmates, me, and the school's equipment. I do not have complicated sets of rules, if you can't handle being in class, or comply with the teacher's reasonable requests, you will be asked to leave and not participate in class that day.

<u>Phones</u> - Nope. Sorry. I'll ask you once to put it away, then I will just keep it safe for you for the rest of the day. There may be a time and place to use your phone in class. When I am lecturing is definitely not a time. If you need to use your phone. Quietly get up and leave the room. Return when you are finished.

Computer Acceptable Use - As an AP class, I treat this as a real college class. This means that it is just automatically assumed that you aren't going to do anything stupid. Stay on task and stay appropriate. Also, remind yourself of the school's computer policy listed in the [student handbook](#)...

COMPUTER USE

Students may be permitted to use the district's electronic communications system only to conduct business related to the management or instructional needs of the district or to conduct research related to education consistent with the district's mission or goals. Personal use of district computers, including email access, is strictly prohibited.

The district's electronic communications system meets the following federal Children's Internet Protection Act requirements:
1. Technology protection measures have been installed and are in continuous operation to protect against Internet access by both adults and students to visual depictions that are obscene, child pornography or, with respect to the use of the computers by students, harmful to students;
2. The on-line activities of students are monitored;
3. Access by students to inappropriate matter on the Internet and World Wide Web is denied;
4. Procedures are in place to help ensure the safety and security of students when using electronic mail, chat rooms and other forms of direct electronic communications;
5. Unauthorized access, including so-called "hacking" and other unlawful activities by students online is prohibited;
6. Unauthorized disclosure, use and dissemination of personal information regarding students is prohibited;
7. Measures designed to restrict students' access to materials harmful to students have been installed.

The district retains ownership and control of its computers, hardware, software and data at all times. All communications and stored information transmitted, received or contained in the district's information system are the district's property and are to be used for authorized purposes only. Use of district equipment or software for unauthorized purposes is strictly prohibited. To maintain system integrity, monitor network etiquette and ensure that those authorized to use the district's system are in compliance with Board policy, administrative regulations and law, school administrators may routinely review user files and communications.

Files and other information, including e-mail, sent or received, generated or stored on district servers are not private and may be subject to monitoring. By using the district's system, individuals consent to have that use monitored by authorized district personnel. The district reserves the right to access and disclose, as appropriate, all information and data contained on district computers and district-owned e-mail system. Students who violate Board policy, administrative regulations, including general system user prohibitions, shall be subject to discipline up to and including expulsion and/or revocation of district system access up to and including permanent loss of privileges. Violations of law will be reported to law enforcement officials.