AP Computer Science Principles

Newport High School 2020-2021

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| Teacher: | John Walker |
| Email: | **walkerj@bsd405.org** |

# Course Overview

Welcome to AP Computer Science Principles! In today’s modern world an understanding of Computer Science is invaluable. Whether or not you want to go on to one day work in the technology industry a survey of computer science is going to serve you well in becoming an informed consumer. Going into this course I will assume no prior computer science experience. My goal in this class is to help you become an informed consumer and to walk away with a broad understanding of the global impacts that computing can have in today’s world. My second goal is to prepare everyone to succeed on the AP test.

# Skills and Prerequisites

This class does not require any prior experience in computer programming. However, there are a few skills that I expect all students to know:

* A basic understanding of how to use a computer (using a mouse and keyboard, as well as knowing how to open and name files)
* Basic algebra and problem-solving skills
* Basic written communication skills
* An ability to learn from your mistakes
* PERSISTENCE!

# Course Materials

**Computer**: Students will be issued a school laptop which is perfectly suitable for everything we will be doing in this class.

**Notebook/Pen:** I expect all students to write their notes in a physical notebook throughout the lessons.

**College Board Account:** I highly encourage all students to take the AP exam at the end of the year. If you plan on taking the test you are required to set up an account on the College Board site and know your sign-in.

**Edhesive Account:** This will be performed in class on the first or second day. Students will have to create an account on code.org for the Principles class, to access materials and resources.

## Textbook

There isn’t one!

# The AP Exam

The APCS Principles class is very different from most AP courses, where 100% of the exam score is derived from an exam in May. APCS Principles in contrast, has 3 components that make up a student’s AP score:

## Exam in May: 60%

The exam will comprise 60% of a student’s grade for the AP course. The exam is 2 hours long, and composed of 74 multiple choice questions (No free response questions are on the exam).

## Explore Performance Task: 16%

The Explore Performance Task is a research activity that students must complete by **April 30th**. Student’s complete an activity in class and at home and turn in the work on the College Board website. We will be targeting completion of 1-2 practice attempts at this task, AND the task itself by the end of the first semester. However, students will not be expected to officially turn in the task until the end of April.

Rules for performance tasks are very clear:

* No late tasks are accepted (**NO** submissions are accepted by the college board after April 30th)
* Teachers and parents CANNOT help students with the task: it must be their own work. We of course can help prepare students to complete the task well, before the task is started
* Note: once the task is submitted to the college board, the task can, and will be graded
* Teachers MUST provide **8** hours of class time to complete the task. I will be planning on making more time than that available, but that is the specified minimum requirement. Students may work as much as they wish at home on the task

## Create Performance Task: 24%

The Create Performance Task is a creative activity that students must complete by **April 30th**. Student’s complete an activity in class and at home and turn in the work on the College Board website. We will be targeting completion of 1-2 practice attempts at this task, AND the task itself by the end of March, leaving time for students to polish the task if they wish. Students will not be expected to officially turn in the task until the end of April.

As above, rules for performance tasks are very clear:

* No late tasks are accepted (**NO** submissions are accepted by the college board after April 30th)
* Teachers and parents CANNOT help students with the task: it must be their own work. We of course can help prepare students to complete the task well, before the task is started
* Note: once the task is submitted to the college board, the task can, and will be graded
* Teachers MUST provide **12** hours of class time to complete the task. I will be planning on making more time than that available, but that is the specified minimum requirement. Students may work as much as they wish at home on the task

# Workload

This is an AP level course that offers college credit and as such I expect students to treat this class as one. While most of the class will be light on homework, there will be 2 key activities (and practice activities) where homework will be more intense. Please be aware of the upcoming schedule for those components, and plan accordingly. If you feel yourself falling behind at any point in the class, please communicate that with me as soon as possible so I can work with you to be successful.

## In-Class Activities – 25%

Like stated above, there isn’t any homework that will be explicitly assigned. Rather the type of work that this class is built upon is the in-class activities that will be a daily occurrence. I will not be grading every activity, but instead I will typically grade about two of the activities each week based on a more completion-based assessment. My goal for assigning this grade is to award students for participating in class and giving the in-class activities an honest attempt at practicing the new content that we will be learning.

If a student is absent for an activity they need to come talk to be so that we can figure out how they might be able to make one up. This might comprise of the student trying to do the activity on their own, or I might just assign something different depending on the circumstances.

## Projects – 45%

There will be about 2 projects or performance tasks per unit that allow the students to practice style the performance tasks that they will see on the actual AP exam. These practice tasks will be about 25 points. After the actual performance tasks are turned in to college board I will assign a grade for those projects to the student. For each of the real performance tasks the student will receive 100 points.

Unlike homework, projects can be accepted late at a cost. You can expect to lose about 5% per day for late work capped at 20% meaning that the most you can earn is an 80% on the project turned in more than 4 days late. **If the project is going to be turned in more than 4 days late you MUST communicate with me to make a new timeline.** Remember, **it is ALWAYS better to turn in late work than not at all!**

## Tests/Quizzes – 30%

A test or quiz will be given at the end of each unit. Quizzes will cover only the material from the most recent unit, while tests will cover material from multiple units. The exact material covered will be announced prior to each test or quiz. Vocabulary quizzes will be on needed basis and can be pop quizzes.

I don’t allow for retakes (unless under special circumstances). However, if you were absent on the day of the test **you MUST schedule a time with me to take it.**

# Expectations

Students are expected to behave appropriately always in class. Students must be attentive and ready to learn and should actively participate in classroom activities. This includes taking notes and asking questions during lecture time and working on assigned activities during lab time. Students are also expected to be paying attention and not using their computers during lectures and classroom discussions; **computers must only be used during dedicated lab time** and then only on assigned material. All assignments must be completed and turned in on time, and students must be proactive about speaking to the course staff about issues. In addition, all NHS rules and policies must be followed and respected always.

## Cellphones

The use of mobile phones is not permitted during class unless explicitly stated by the classroom teacher.

## Other Policies

* Food is not permitted in the classroom and drinks must be in a closed container
* All content you create (text, images, etc.) must be school appropriate
* Questions are ALWAYS welcome and are encouraged. Questioning shows that we are wanting to learn and are making an honest attempt to uncover the truth of a subject.

# Calendar

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| Unit | Title | Timeline |
| 1 | Internet | 4 weeks |
|  | Practice Explore Performance Task | 1 week |
| 2 | Digital Information | 2 weeks |
| 3 | Intro to Programming | 3 weeks |
|  | Practice Create Performance Task | 1 week |
|  | Practice Explore Performance Task | 1 week |
| 4 | Big Data and Privacy | 4 weeks |
|  | Explore Performance Task | 3 weeks |
|  | End of Semester Test |  |
| 5 | Building Apps | 4 weeks |
|  | Practice Create Performance Task | 1 week |
|  | Create Performance Task | 4 weeks |
|  | AP Exam Preparation | 5 weeks |
|  | Finalize Performance Tasks | 1 week |
|  | AP Exam – May 10th 2019 |  |
|  | Post Exam – Data Tools | 3 weeks |

**College Credit**

This course is worth credit towards college either directly via the college board AP requirements, or via Pacific NW College Credit (formerly Tech Prep). Registration will open towards the end of the first semester. To qualify for the credit, you will need to have a B or better, and pay the consortium fee of $50. More details on this will be provided prior to opening of registration and can be found on the website: <https://www.pnwcollegecredit.org/>

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| Course Title | College Providing Credit | Course Number and Title | Credits Available |

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| **AP COMPUTER SCIENCE PRINCIPLES**  *(Both semesters)* | BC | Prog 110 Introduction to Programming | 5 |
| **AP COMPUTER SCIENCE PRINCIPLES**  *(Both semesters)* | EdCC | CIS 125 Network Workstation | 5 |

Chance Chihak

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Heidi Wilson

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Dear Parents/Guardians,

Please take some time to look over the syllabus and course expectations. It is my hope that we will form a partnership for the success of your student. Please feel free to contact me any time you have questions or concerns. The fastest way to reach me is via email: walkerj@bsd405.org.

In addition to the pandemic this year, we just purchased curriculum using Edhesive, an external platform. This will improve your student having a successful experience and outcome from the class. It will change overall percentages and categories and that will be communicated with an update as soon as possible. Broadly speaking it will be similar. In addition, be aware that the College Board is making adjustments as well and again, broadly speaking they may well be inline with previous pandemic responses. Reach out to me for current information and we will provide updated information as the term progresses.

If you and your student could please take a moment to sign this syllabus acknowledging that you have reviewed the content. This will be the first homework assignment that so that we can become familiar with the turn-in procedures in this class.

Thank you,

Mr. Hansen

Student Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_