

**Course Name:** APCS Principles **Semester:** Fall 2019 – Spring 2020

Period: 6

Teacher: Ms. Allison Ambler

**Room:** G 122

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**COURSE DESCRIPTION:** AP Computer Science Principles

Course #: 11.0190000

### **Course Overview:**

The AP Computer Science Principle course is designed to be equivalent to a first semester introductory college computing course. In this course, students will develop computational thinking vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize and draw conclusions from trends. The course is unique in is focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of those problems and the impacts to their community, society and the world.

**Program Pathway:** This is the second course both the Programming pathway and the Computer Science Pathway.

### **CTAE End Of Pathway Assessment:**

The Georgia Department of Education has made available an End-of-Pathway Assessment to ascertain the competence of our Career Technology students. The End-of-Pathway Assessment measures the level of technical skill attainment of each career pathway completer. The End-of-Pathway Assessment will be administered to all CTE students who have finished or are finishing a pathway. The End-of-Pathway Assessment will be administered in April and students that pass the test will receive an industry-recognized certification. Seniors who pass the test will receive a special CTE cord to wear at graduation.

### **AP Practice Exam**

All students are expected to take a full length, practice AP exam that will count as their final exam grade for the spring semester. This mock exam will take place from **4:00 pm – 6:00 pm on Thursday, April 30, 2020**. (Date subject to change.)

### AP Exam:

All students will be expected to take the AP Computer Science Principles Exam. It will be administered on **Friday, May 15, 2020 at noon**. The exam will consist of 74 multiple choice questions. Students will be given 120 minutes to complete the MC exam. This exam is worth 60% of the AP score.

In addition, there are two thru-course performance tasks. The Explore Performance task is worth 16% of the AP score and the Create Performance Task is worth 24% of the AP scores. Detailed instructions and class time for completion of each task will be given to the students.

### **Textbooks and Resources:**

#### Books

- Computer Science Illuminated by Neal Dale and John Lewis: textbook supplied by Fulton County Schools
- Blown to Bits by Abelson, Ledeen and Lewis. Available as a free download at http://www.bitsbook.com/excerpts/
- <u>CS Principles: Big Ideas in Programming</u> An online textbook created by Barbara Ericson and others from GA Tech
- **Software and Online Applications** (all free resources. Students may want to install and use at home)

Beauty and Joy of Computing by UC Berkeley	Snap!
EarSketch by GA Tech	Codingbat
<u>Code.org</u>	W3schools.com
<u>Codeacademy.com</u>	Notepad++
Applnventor by MIT	codeHS.com
Other online resources as needed	

### **Classroom Expectations:**

1. Come to class:

With the Right Materials At the Right Time With the Right Attitude

- 2. Show respect for everyone (yourself, your peers, your teacher, and all property)
- 3. Unless specifically instructed by Ms. Ambler, personal electronic devices (cell phones, I-pods, I-touches etc.) are not allowed to be visible or used in the classroom. These items will be collected if seen.
- 4. Complete all homework and class work with 100% effort and work on self-evaluation and improvement.
- 5. All Chattahoochee handbook and Fulton County rules will be followed.

**Course Topics**: APCS Principles revolves around seven big ideas: creativity, abstraction, data & information, algorithms, programming, the internet and global impact of computing. It also incorporates six computational thinking practices: connecting computing, creating computational artifacts, abstracting, analyzing problems and artifacts, communicating and collaborating. Units of study for APCS Principles this year (subject to change):

Fall Semester	Spring Semester		
Internet: Intro, History & Systems, HTML *Unit programming challenge	Algorithms & Abstractions		
Internet, Global Impact & Data: Cybersecurity; Cryptography, Models & Simulations *Unit programming challenge	Basic Python Programming & Abstraction with EarSketch and CodeHS		
Data: Collection, storage, management, impact, ethical issues; Innovations in Data *Unit programming challenge	Basic programming II (lists, sorting and searching) w/ block & python		
Data: Investigating Datasets to Determine Patterns and Make Predictions *Unit programming challenge	Mock Create Performance Task		
Explore Performance Task (8 class hours)	Create Performance Task (12 class hours)		
Fall semester final exam	Spring Final exam / Practice ap exam Wednesday, May 1 <sup>st</sup> 4:00 – 6:00		
AP Exam: Friday, May 15, 2020 @ 7:30 am			

**Materials Needed for the Course:** Student agenda, Binder/notebook, usb drive, pens/pencils, a great attitude!

### **CHS Computer Science Plagiarism Statement:**

A particular kind of honor code violation occurs with plagiarism. Plagiarism is defined as the use of another's words, ideas, or programming code and the presentation of them as though they are entirely one's own. Acts of plagiarism include but are not limited to using words, programming code or ideas from a published source (including the Internet) without proper documentation; using the work/artwork/programming code of another student (e.g., copying another student's artwork, code, homework, composition); using excessive editing suggestions of another student, teacher, parent, or paid editor. Plagiarism on any project or paper at Chattahoochee High School will result in a zero for the assignment and an Honor Code Violation. Unless directly stipulated by the teacher, collaboration on written work/projects/programming code is not acceptable. Students who willingly provide other students with access to their work are in violation of the Chattahoochee High School Honor Code.

# Career, Technical and Agricultural Education (CTAE) Department

# **Grading Scale**

Grade	Range
Α	90 - 100
В	80 - 89
С	70 - 79
F	69 & below

### Grade Distribution: Student grades in all CTAE classes will be based on the following system:

Category	Weight	Description	Expected Time to return grades to students
Summative Assessments	50%	Unit Tests, Major Unit Projects, Practice Performance Tasks	Tests: 5 school days Projects: 7 – 10 school days
Formative Assessments	20%	Quizzes, live coding tasks, instructional labs	3 school days
Progress Reports	10%	Homework, CodingBat, PracticeIt, Reflections, Notebook check	3 school days
Final Exam	20%	Cumulative final exam for Fall and Spring semesters	

# Fulton County School Board Policy Grading and Reporting System Provision for Improving Grades

- 1. Opportunities designed to allow students to recover from a low or failing cumulative grade will be allowed when all work required to date has been completed and the student has demonstrated a legitimate effort to meet all course requirements including attendance. Students should contact the teacher concerning recovery opportunities. Teachers are expected to establish a reasonable time period for recovery work to be completed during the semester. All recovery work must be directly related to course objectives and must be completed ten school days prior to the end of the semester.
- 2. Teachers will determine when and how students with extenuating circumstances may improve their grades.

### **CTAE Department Provision for Grade Improvement Policy**

Students who have received a grade below 75% on a major test/project have the opportunity to recover their grade through the Grade Improvement process.

- The maximum grade that can be earned is 75%.
- Students must initiate the recovery process.

- Once notified of the low grade, students have up to 10 days to initiate the recovery process.
- Students are allowed one attempt at recovery per major assessment. All recovery work must be completed 10 days before the end of the semester.
- In the case of an honor code violation on a major assessment, the grade will stand as a zero with no eligibility for recovery on that assignment.
- The individual teacher will determine the means of recovery.
- Students can have no more than 5 unexcused absences from the class.
- All missing work/zeros must be made up before the recovery process can begin.

# Late/Missing Work

- Work that is turned in after the deadline will receive a maximum grade of 75%.
- Work that is missing will receive an NHI (not handed in).
- If the missing work is not submitted within 10 days from the initial deadline, the NHI will be changed to a zero.

# **Tardy Policy:**

You are expected to be in class and ready to work when the tardy bell rings. We will follow the tardy policy as directed in the Chattahoochee student handbook.

# **Help Sessions & Conferences:**

If you fall behind or need extra help/time, see Ms. Ambler to set up a help session. I encourage all students who have questions to see me for extra help as soon as they need it!

### **Computer Usage Policy:**

- I will limit my use of technology in school to the educational objectives established by my teachers:
- 2. I will not retrieve or send unethical, illegal, immoral, inappropriate or unacceptable information;
- 3. I will follow the rules on network etiquette, which includes the use of appropriate language and polite responses. I will not use abusive language of any type, including swearing and name-calling:
- 4. I will not share my home address or phone number with another user for any purpose;
- 5. I understand that information received on-line is private property, unless specified. I will not plagiarize information received in any form;
- 6. I will not use or access another person's account, and I will not share my password with anyone else;
- I will not attempt to bypass the security built into the system or network, and I recognize that
  doing so will result in immediate cancellation of my privileges as well as disciplinary measures
  dictated by this school's administration;
- 8. I will not interfere with or disrupt network users, services or equipment. Disruptions include, but are not limited to, distribution of unsolicited advertising, propagation of computer viruses, and using a network to make unauthorized entry to any other machine accessible via a network;
- I will not use technology access provided by Fulton County Schools for illegal purposes of any kind;

# Course Syllabus: APCSP

- 10. I will not use technology access to transmit threatening, obscene, or harassing materials
- 11. I will not engage in any on-line chat rooms nor play any on-line games unless specifically authorized to do so by my teacher for educational purposes;
- 12. By signing this waiver and consent, I understand and agree that Fulton County Schools will not be held responsible if I participate in any such activities;
- 13. I understand my responsibility as a user of telecommunications. I have read the above rules and realize that any infraction will cancel my user privileges and may result in further disciplinary action, including suspension from school.
- 14. I agree to adhere to any additional computer usage policies as set forth in the school agenda.

## **Student Organization:**

Future Business Leaders of America (FBLA) is a co-curricular student organization in Business and Computer Science that promotes leadership, career planning, community service, and social networking. Every student will be required to complete FBLA management assignments. Additionally, FBLA will be blended into all of the standards of the course. Membership is strongly encouraged for all students enrolled in this course. Dues are \$21 for local, state, and national membership. See me for an application.

\*\*This syllabus is subject to change at the teacher's discretion without prior notice.

# Course Syllabus: APCSP

### Please return this page, signed, by August 16, 2020. This is part of a formative grade.

By signing the contract below, I acknowledge that I have read and understood this syllabus for CS Principles. I also understand that:

- The primary expectation for students in my classroom is to be focused on APCS Principles the entire class period.
- Students can expect that the instructor will provide the following: A safe environment that is
  conducive to learning, a healthy mix of written assignments and communicative activities, fair
  evaluations that test the exact objectives of the given unit, knowledge of the exact grading criteria
  for any assignment and finally the student can expect that Ms. Ambler will give 100% every day to
  facilitate the learning of her students.
- Cell phones or other personal electronic devices should not be visible or used at any time during the class period unless specifically authorized by Ms. Ambler.
- The student is responsible for all instruction whether present or absent.

I understand that academic integrity creates a strong academic and ethical environment at

academic integrity by being honest and not tolerating academic dishonesty.

 The student is responsible for turning in all work when it is due and making up any missed assignments.

Chattahoochee High School. I pledge that I will be personally responsible for upholding the values of

Help sessions are available from Ms. Ambler.

Student Name: \_\_\_\_\_\_ Period: \_\_\_\_\_

Check the box if you have registered with Remind. Code: Text @allisonam to 81010

Student Signature: \_\_\_\_\_

(I understand my responsibility regarding make-up work and have signed up for Remind)

Parent signature: \_\_\_\_\_

(I have read and discussed the syllabus with my son/daughter.)