



# Computer Science Classes

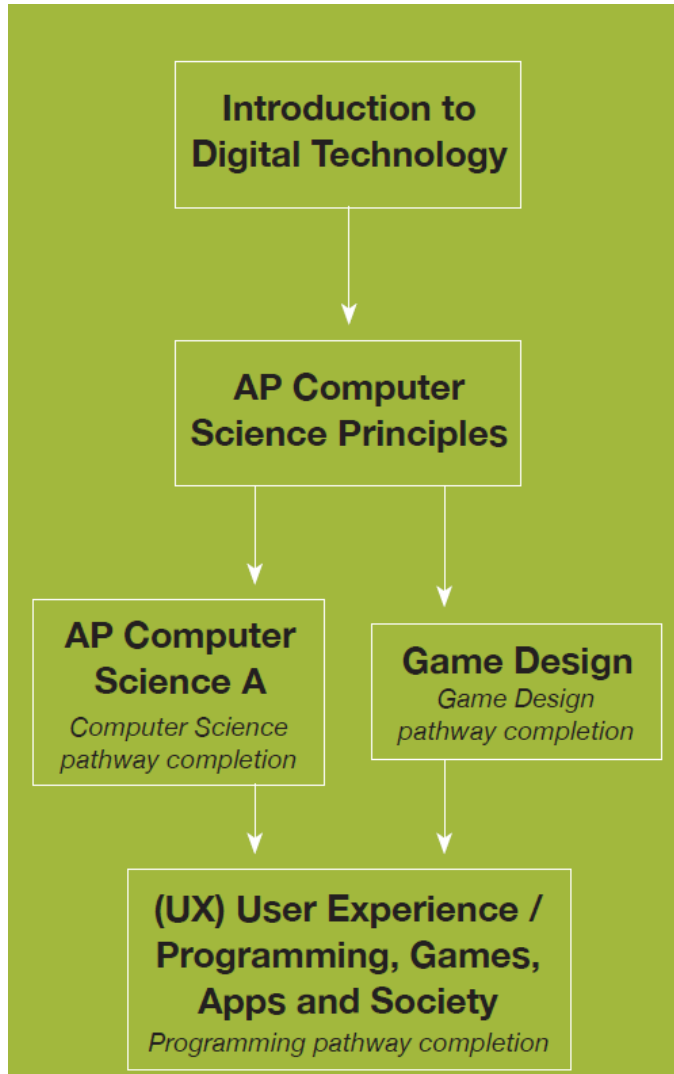
---

CHATAHOOCHEE HIGH SCHOOL



# Progression of Computer Science Classes

---



# Course 1: Intro to Digital Technology

---

Introduction to Digital Technology is the foundational course for Computer Science. This course is designed for high school students to understand, communicate, and adapt to a digital world as it impacts their personal life, society, and the business world. Exposure to foundational knowledge in hardware, software, programming, web design, IT support, and networks are all taught in a computer lab with hands-on activities and project focused tasks. Students will not only understand the concepts but apply their knowledge to situations and defend their actions/decisions/choices through the knowledge and skills acquired in this course.

Employability skills are integrated into activities, tasks, and projects throughout the course standards to demonstrate the skills required by business and industry.

CS Languages taught in IDT at Chattahoochee: Block based programming, HTML, CSS

# Course 2: AP Computer Science Principles

---

AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

Prerequisite: Intro to Digital Tech

CS Languages taught in APCSP at Chattahoochee: Block based, Python

# New for 2021-22

---

We are excited to announce that we will be offering a new course that combines both IDT and APCSP into one course taken in one school year. Students will cover both sets of standards and earn course credit for both courses.

**Who can apply?** Rising 10<sup>th</sup> and 11<sup>th</sup> graders who made an A in Algebra I

**How to apply?** Complete the application. This does not guarantee a spot in the course.

**Where is the application?** [tinyurl.com/4yokr1uo](https://tinyurl.com/4yokr1uo) You must be signed into your FCS office 365 account to access the form.

**Application closes on February 17, 2021**



This Photo by Unknown Author is licensed under [CC BY-NC-ND](https://creativecommons.org/licenses/by-nc-nd/4.0/)

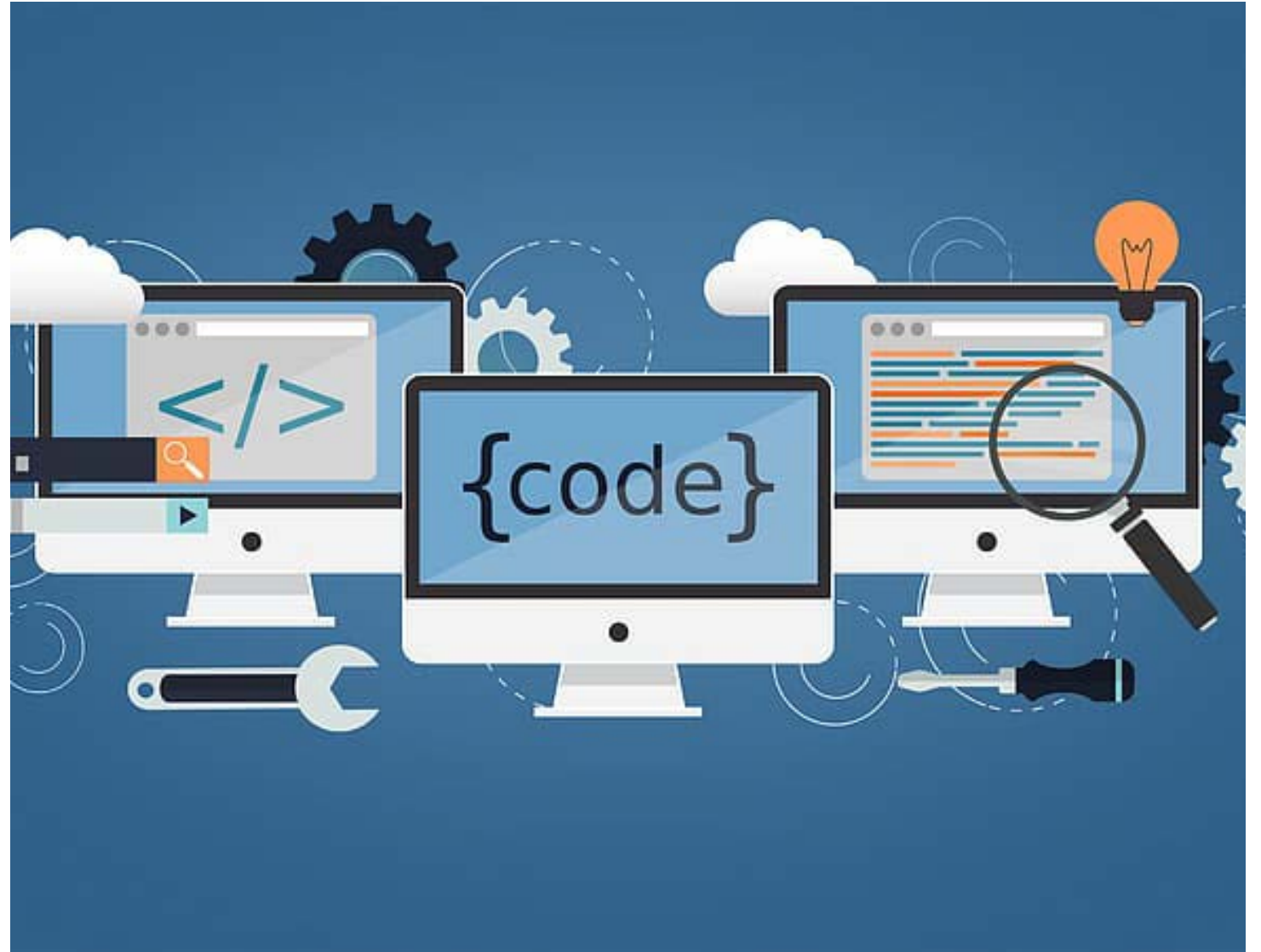
# Course 3: Two options

---

AP Computer Science A

Or...

Game Design



# Course 3: AP Computer Science A

---

AP Computer Science A is a traditional, Java programming course. In this rigorous course, students will learn to design a program to solve a problem, develop complex algorithms, test and debug program code and document and explain how program code works. Students will cover the basics of the Java language, data structures, object-oriented programming, inheritance and recursion.

Prerequisite: IDT and APCSP

Language taught in this course: Java

# Course 3: Game Design

---

Students completing this course will gain an understanding of the fundamental principles used at every stage of the game creation process. First, game genres and modes of play are explored in terms of the psychology of incentives, motivation to play, and social networking. Next, virtual characters and non-player characters are reviewed from concept drawing to 2D and 3D art, rigging, and animation. Next, level design, storytelling, and animation are added to develop a virtual world around the characters. These same techniques are at work in training simulator systems, virtual shopping experiences, augmented reality, and a number of other important career options.

Prerequisite: IDT and APCSP

Language taught in Game Design at Chattahoochee: C#



# Course 4: UX Design

---

UX Design is unique to Chattahoochee. This course was designed by Ms. Dayton and Mrs. Whitlock to be a senior level, collaborative course between computer science students and graphic design students. Students form teams and progress through a design thinking process to create real life products to solve real world problems. Through this process, students integrate industry software and work on additional certification areas for Adobe products, programming languages and software expertise.

Examples of team projects include: an app to easily access the school lunch menu, calendar & planning apps targeted to students, websites for course catalogs, COVID tracking apps and environmental applications for hiking and volunteer opportunities.

Must be recommended for this course during the senior year.



# Questions?

---

Contact Mrs. Whitlock at...

[Whitlock@fultonschools.org](mailto:Whitlock@fultonschools.org)