

2022 EDITION

# Georgia Computer Science Education Guide



Prepared by CodeHS  
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# Why Computer Science?

In the 21st century, coding is a foundational skill, just like reading and writing. Everyone should get the chance to learn how to code—it's a skill that provides limitless creative opportunities to students and future generations.

With a great curriculum, resources, and support, school districts across the country can implement high-quality computer science programs. At CodeHS, our goal is to make computer science education fun and accessible to all!

## Georgia CS Education Overview

In 2019, Georgia Governor Brian Kemp signed Senate Bill 108 which requires all high schools to phase-in computer science classes by the 2024-2025 school year. This new legislation ensures that all students in Georgia have access to rigorous computer science courses and are prepared for the future. View the full [Georgia Computer Science Plan](#).

To increase investment in computer science across the state, the Georgia General Assembly allocated \$750,000 for computer science teacher professional development.

# Standards Alignment

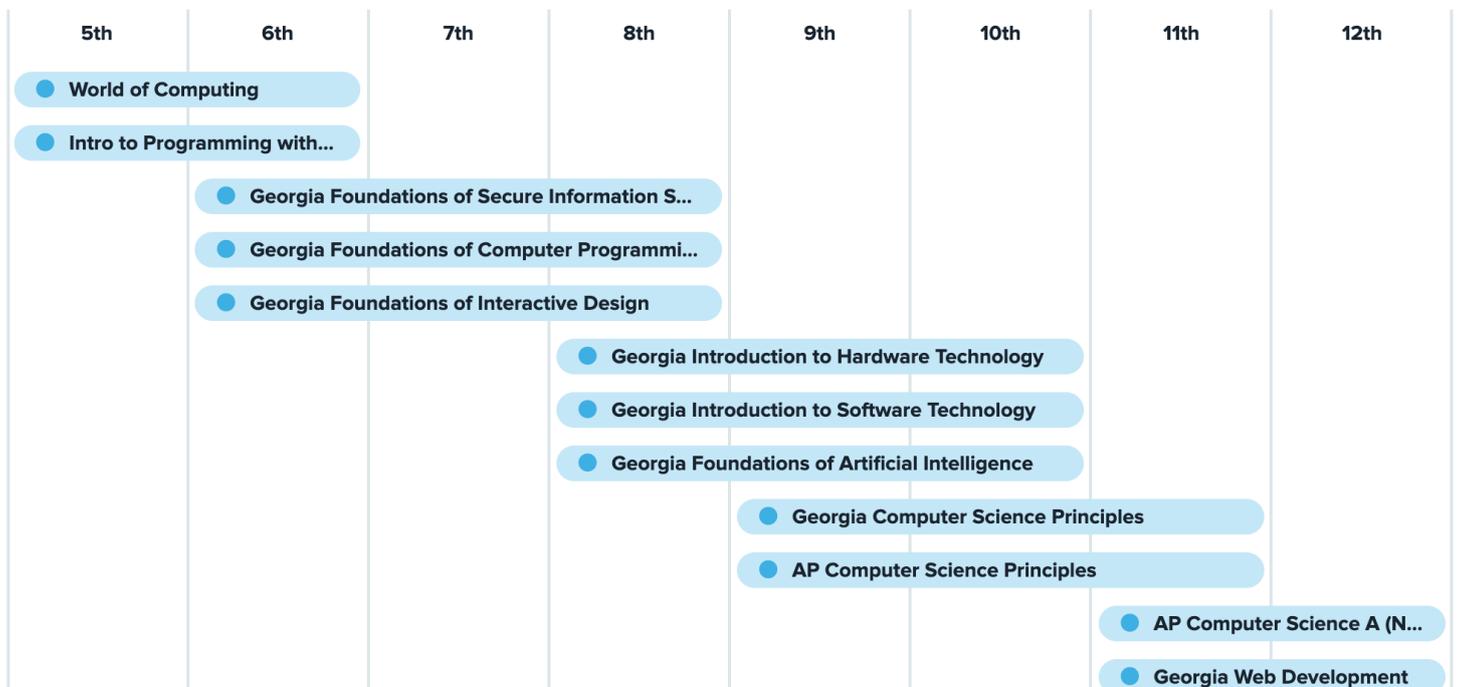
## CodeHS Alignment to Georgia CS Standards

CodeHS is aligned to **Georgia's 5-12 CS Academic Standards** and fully aligned to courses in the Georgia's High School Computer Science Pathway and Georgia's Web Development Pathway.

Access these courses for free at [codehs.com/georgia](https://codehs.com/georgia)

# Georgia 5-12th CS Curriculum Pathway

CodeHS is aligned to Georgia's 6-8 Academic Standards and fully aligned to the courses in the **Georgia Computer Science Pathway**.



CodeHS also offers courses within other Georgia Information Technology Pathways such as Game Design, Programming, & Cybersecurity. (See page 7)

# Course Overview



## World of Computing

Grade Levels: 5th, 6th

The World of Computing course is an introductory computer science course that introduces the basics of programming with Karel the Dog and allows students to explore what a computer is and how technology has affected their lives. Students have the option to code in either blocks or text.



## Intro to Programming with Karel the Dog

Grade Levels: 5th, 6th

Learn the basics of computer science with Karel the Dog. Students give commands to the dog to practice foundational concepts and solve programming puzzles. This is a great first course for middle schoolers and can be done with text or block-based programming.



## Georgia Foundations of Secure Information Systems

Grade Levels: 6th, 7th, 8th

This course provides a foundation in information systems, networking, and cybersecurity. Through integrated instructional activities, students will have opportunities to apply employability skills and to research possible career options in the IT area.



## Georgia Foundations of Computer Programming

Grade Levels: 6th, 7th, 8th

This course provides students with an exploratory foundation in computer programming. Students will complete many hands-on activities to build a strong foundation in coding while gaining employability skills to discover possible career options in the IT area.



## Georgia Foundations of Interactive Design

Grade Levels: 6th, 7th, 8th

This course will provide an exploratory foundation in the design and development of websites and games. Through integrated instructional activities, students will have opportunities to apply employability skills and to research possible career options in the information technology area.

# Course Overview



## Georgia Introduction to Hardware Technology

Grade Levels: 8th, 9th, 10th

This course teaches foundational concepts around Hardware Technology, Networking, Cybersecurity, Information Support and Services.



## Georgia Introduction to Software Technology

Grade Levels: 8th, 9th, 10th

This course is the foundational course for many Georgia IT pathways. It 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.



## Georgia Foundations of Artificial Intelligence

Grade Levels: 8th, 9th, 10th

This course teaches important programming concepts that enable the use of AI in computer science and society at large. Students learn the implications of AI on society and develop a series of projects that illustrate the variety of ways AI can be used to optimize and predict information.



## Georgia Computer Science Principles

Grade Levels: 10th, 11th

Georgia Computer Science Principles introduces students to the foundational concepts of computer science and programming in JavaScript. With a unique focus on creative problem solving and real-world applications, students are challenged to explore how computing and technology can impact the world.

# Course Overview



## AP Computer Science Principles

Grade Levels: 10th, 11th, 12th

AP Computer Science Principles introduces students to the foundational concepts of computer science and programming. With a unique focus on creative problem solving and real-world applications, students are challenged to explore how computing and technology can impact the world.



## AP Computer Science in Java

Grade Levels: 11th, 12th

The CodeHS AP<sup>®</sup> Computer Science A course is designed to help students master the basics of Java and equip them to successfully pass the AP<sup>®</sup> Computer Science A Exam at the end of the school year.



## Georgia Web Development

Grade Levels: 11th, 12th

This course is intended to teach students the fundamentals of web development in a project-based learning environment. Students are taught the basic elements of web development, such as web hosting, file organization, and incorporating Javascript into HTML files.

Explore all free CS courses in the  
CodeHS Course Catalog at  
[codehs.com/course/catalog](https://codehs.com/course/catalog)

# Georgia IT Pathways

Georgia IT Pathway	Georgia Courses	Does CodeHS have a fully aligned course?
<b>Computer Science</b>	Introduction to Software Technology	Yes
	Computer Science Principles or AP CSP	Yes
	AP Computer Science	Yes
<b>Cybersecurity</b>	Introduction to Hardware Technology	Yes
	Introduction to Cybersecurity	Partial
	Advanced Cybersecurity	Partial
<b>Game Design</b>	Introduction to Software Technology	Yes
	Computer Science Principles or AP CSP	Yes
	Game Design: Animation and Simulation	Partial
<b>Internet of Things</b>	Introduction to Software Technology	Yes
	Computer Science Principles or AP CSP	Yes
	Embedded Computing	No
<b>Programming</b>	Introduction to Software Technology	Yes
	Computer Science Principles or AP CSP	Yes
	Programming, Games, Apps, and Society	Partial
<b>Web Development</b>	Introduction to Software Technology	Yes
	Computer Science Principles or AP CSP	Yes
	Web Development	Yes
<b>Artificial Intelligence</b>	Foundations of Artificial Intelligence	Yes
	Artificial Intelligence Concepts	No
	Artificial Intelligence Applications	No
<b>Networking</b>	Introduction to Hardware Technology	Yes
	Networking Fundamentals	Partial
	Networking Systems and Support	No
<b>Web and Digital Design</b>	Introduction to Software Technology	Yes
	Digital Design	No
	Web Design	Partial

# Professional Development

CodeHS' online and in-person professional development helps train teachers to teach excellent computer science courses -- no programming experience required.

Learn more at [codehs.com/info/pd](https://codehs.com/info/pd)

## GACE CS Prep Course

CodeHS offers a comprehensive online Georgia Assessments for the Certification of Educators Computer Science (GACE CS) prep course. With full alignment to the standards covered in this exam, teachers will be well prepared!



55 Hour  
Course



100% Aligned



13 Units

## Online PD Courses

The online PD courses are made up of a series of learning modules that teachers can complete on their own time, during summer, school professional development days, or school holidays.

- Teaching Intro to Computer Science
- Teaching AP Computer Science Principles
- Teaching AP Computer Science A
- Teaching Computing Ideas
- Teaching Intro to Python
- Teaching Web Design
- Teaching Intro to Cybersecurity
- Level 2 Professional Development for CS Teachers

## In-Person PD Workshops

The in-person professional development workshops are for districts looking to train multiple computer science teachers. Workshops can be 1 or 2 days, and cover a variety of topics which are customizable to the districts needs.

# CodeHS Teacher Love

“I've been extremely pleased with my CodeHS experience. My favorite part is the grading feature. My students have completed 10x as many labs and received 100x better feedback via CodeHS versus any other textbook or platform I have used in the past.”

- Timothy Hipp, Teacher at WoodWard Academy  
in College Park, Georgia

“I love the course features: video, quiz, example, and exercises for each lesson.”

- Advis Wilkerson, Teacher at  
Creekside High School in  
Fairburn, Georgia

## Facts About Georgia CS



4,952 Georgia students took the Advanced Placement Computer Science exams in 2018; only 27% were female



Universities in Georgia did not graduate 1 new teacher prepared to teach computer science in 2016



Computer programmers in Georgia have an average annual salary of \$100,910, which is 2x the average state salary

Sources: College Board, Bureau of Labor Statistics, Code.org



**CodeHS**

# Bring a Full Computer Science Program to Your District

Contact us at [hello@codehs.com](mailto:hello@codehs.com).



**Contact Us**

**We'd be happy to chat more!**

[hello@codehs.com](mailto:hello@codehs.com) | [codehs.com](https://codehs.com) | [@codehs](https://twitter.com/codehs)

