CodeHS

Computer Science in Georgia

codehs.com | hello@codehs.com

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 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

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.

Standards Alignment

CodeHS Alignment to Georgia K-12 Computer Science Standards

CodeHS is aligned to **Georgia's K-12 CS Academic Standards** and **fully aligned to courses in the Georgia's High School Computer Science and Web Development Pathways.** CodeHS also offers courses within other Georgia Information Technology Pathways such as Game Design, Programming, & Cybersecurity. (See page 9)

Access these courses and view all standard alignments at codehs.com/georgia

Georgia K-12 CS Curriculum Pathway

Elementary School

- K: Kindergarten: Computer Science
- 1st: 1st Grade: Computer Science
- 2nd: 2nd Grade: Computer Science
- 3rd: 3rd Grade: Computer Science
- 4th: 4th Grade: Computer Science
- 5th: 5th Grade: Computer Science

Middle School

- 6th: Georgia Foundations of Computer Programming
- 7th: Georgia Foundations of Interactive Design
- 8th: Georgia Foundations of Secure Information Systems

High School

- 9th: Georgia Introduction to Software Technology
- 10th: Georgia Computer Science Principles
- 11th: AP Computer Science A
- 12th: Data Structures in C++ *(Optional)*

Elementary Overview

Build a Full K-12 Computer Science Pathway with CodeHS

Project-Based Elementary Lessons

Each lesson focuses on standards-aligned CS concepts with a hands-on project. Teachers are provided a tutorial video for ease of preparation along with a detailed rubric and differentiation options.

Computer Science | Interdisciplinary Lessons | Physical Computing | Open-Ended Projects | Supplemental Handouts

District Implementation Consultation

Districts and their teachers are provided ongoing CodeHS support to ensure a successful elementary implementation which includes suggested lesson sequences.

Customizable PD Workshops

CodeHS PD workshops are designed to quickly get elementary teachers up to speed with teaching CodeHS lessons. No previous programming experience is needed!

Georgia Vertically-Aligned K-5 Pathway

CodeHS Elementary curriculum provides customizable, vertically-aligned lessons to unify a K-12 computer science pathway at any district. Lessons are aligned to state and national CSTA standards.

Georgia Elementary Computer Science Pathway	
Kindergarden:	Computer Science
1st Grade:	Computer Science
2nd Grade:	Computer Science
3rd Grade:	Computer Science
4th Grade:	Computer Science
5th Grade:	Computer Science

To learn more, visit codehs.com/elementary or contact us at hello@codehs.com.

Sample Elementary Lessons

CodeHS Elementary lessons use a student coding project to introduce or reinforce computer science and interdisciplinary skills and concepts.

Mathematics

- Story Problems: Addition & Subtraction
- Counting & Sequences
- Greater Than & Less Than
- Creating Shapes in ScratchJr
- Place Value
- Counting with Maze
- Decompose Numbers
- Algebraic Thinking: Finding the Unknown
- Counting Money
- Geometry: Quadrilaterals
- Fractions & Variables
- Adding Loops
- Unit Converter

Social Studies

- Who Keeps Us Safe?
- Economic Choices
- Cardinal Directions
- Rights & Responsibilities
- Interactive Map

Computer Science

- Introduction to Scratch
- Introduction to ScratchJr
- Technology in Our World
- Computer Basics
- Maze Game
- Loops
- Data & Programming
- Wildlife Scene Project
- Platform Game Design
- Digital Holiday Greeting Card Project
- Variables
- How Systems Work (What is a Computer?)
- Simple Algorithms
- Our Words Have Power (Cyberbullying)
- Clones in Games
- Intro to Conditionals
- Creative Storytelling
- Scratch Digital Pet Project
- 3D Design 1: Recreate an Animal

Science

- Animal Life Cycles
- Adaptation & Survival: Camouflage
- Sun & Moon, Day & Night
- Changing Landforms
- Phases of the Moon
- Comparing Organisms
- Weather and Seasons
- Changes in the Environment
- Nutrition Maze
- Exploring Ecosystems
- Effects of Pollution
- Cycle of Matter
- Wave Generator Program
- Plan & Animal Cells

ELA

- Sentence Builders
- Storytelling Animations
- Letter Sounds
- Animated Poetry Reading
- Grammar Quiz Game

To learn more, visit codehs.com/elementary or contact us at hello@codehs.com.

6-12 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.

6-12 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.

6-12 Course Overview

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.

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

Explore all Computer Science courses available in the CodeHS Course Catalog at codehs.com/course/catalog

Georgia IT Pathways

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

CodeHS Professional Development

Learn more at codehs.com/pd

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

GACE CS Prep Course

This is an online professional development course to help prepare teachers for the Georgia Assessments for the Certification of Educators Computer Science (GACE CS) exam. It covers 100% of the competencies designated for the exam.


55 Hour Course


100% Aligned


13 Units

Online PD Courses

The online PD courses come in various lengths (5-40 hours) and are made up of a series of learning modules. Teachers can complete on own time, during summer, school PD days, or school holidays. **View the full PD Catalog at codehs.com/pdcatalog.**

- Teaching Methods for Computer Science
- 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 **and many more!**

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.

Latest Improvements

Academic Integrity

Launching an improved Academic Integrity Center to help teachers prevent, identify, and discourage cheating in the classroom

Spanish Translations

Releasing translations for our most popular courses, to have courses across K-12 that can be used in Spanish.

Artificial Intelligence

Incorporating AI to simplify teacher workflows, including AI hints, using AI for grading, and exploring AI for autograders and differentiation.

Differentiation

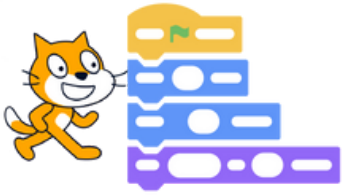
Releasing improved differentiation tools to help you continue to customize and adapt lessons for students.

Real-Time Data

The Gradebook, progress, and quiz results will all update in real-time as students work through courses and submit their assignments.

Scratch and ScratchJr in the CodeHS Sandbox

Teachers who use the CodeHS Elementary curriculum can use Scratch and ScratchJr within the Sandbox!!



Elementary Course Catalog & K-5 Pathways

With over 200 elementary lessons piloted over 2 years, we will be releasing full elementary curriculum pathways, including 10 courses in an elementary course catalog.

CodeHS

CodeHS in Georgia

> “Thank you for making it possible to help all students."
>
> - Teacher at Lassiter High School in Georgia

> “CodeHS has been a great resource and skill builder for my students."
>
> - Teacher at Mill Creek High School

> “CodeHS helps me organize standards to cover and gives me a timetable to complete it."
>
> - Teacher at Allatoona High School in Georgia

> “Students get excited about learning to code. They are learning to problem solve and debug their own programs."
>
> - Teacher at Fayette County School District in Georgia

Largest School District Customers in GA

Districts	Grade Band	Teachers	Students
Gwinnett County	6-12	165	16,000+
Cobb County School District	9-12	27	2,000+
Fulton County Schools	6-12	54	5,400+
Fayette County	K-12	26	3,500+
Atlanta Public Schools	6-12	40	1,800+
Dekalb County Schools	9-12	23	900+