**2019 EDITION** 

Arkansas Computer Science Education Guide



Prepared by CodeHS 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 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!

# Arkansas CS Education Overview

Act 187, passed in 2015, required all public and public charter high schools in Arkansas to offer a high school level computer science by the 2015-2016 school year. This means there must be at least one computer science course available to all 9-12 students.

CodeHS

Source: Arkansas Department of Education, Code.org

# **Arkansas CS Standards**

#### CodeHS Alignment to Arkansas CS Standards

- Arkansas's Middle School Academic Standards Alignment
- Alignment to Arkansas's Computer Science with Programming / Coding Emphasis

Arkansas Computer Science I: Programming and Coding Emphasis Arkansas Computer Science I is the first CodeHS course fully aligned Arkansas Computer Science Standards and it's FREE!

Access the full course for free at codehs.com/arkansas\_cs1/start

# Arkansas 6-12th Curriculum Pathway

Here are the CodeHS courses that align with Arkansas 6-12th Computer Science Standards. You can also view this interactive pathway at **codehs.com/arkansas\_pathway.** 

5th	6th	7th	8th	9th	10th	11th	12th
World of Computing							
	Introduction to the Internet						
	Web Design						
				Arkansas CS I (Programming/Coding Emphasis)			
					AP Computer Science Principles		
					Arkansas CS II (Programming/Coding Emphasis)		
					AP Computer Scie		ence A (Nitro)

CodeHS

**ARKANSAS CS / PAGE 3** 

# **Course Overview**

#### World of Computing Grade Levels: 5th, 6th

The World of Computing course is a first computer science course introducing the basics of programming with Karel the Dog, and allowing students to explore what a computer is and how technology has affected their lives. Students will learn to code using blocks to drag and drop, but they can switch between blocks and text as desired. With a unique focus on creativity, problem solving and project based learning,



#### Introduction to the Internet Grade Levels: 6th, 7th

Introduction to the Internet is a first computer science course introducing the basics of designing a web page and how information and images are represented with computers. Students will create a portfolio on the web of projects they build throughout the course.



### Web Design

Grade Levels: 7th, 8th

The CodeHS Web Design course is a project-based course that teaches students how to build their own web pages. Students will learn the languages HTML and CSS, and will create their own live homepages to serve as portfolios of their creations.



### Arkansas CS I (Programming/Coding Emphasis) Grade Levels: 9th, 10th

This is the level one computer science course for the state of Arkansas. It is designed to provide foundational understandings of concepts in computer science that are necessary for students to function in an ever-changing technological world. These standards help students learn to accomplish tasks and solve problems independently and collaboratively. These standards give students the tools and skills needed to be successful in college and careers, whether in computer science or in other fields.



### AP Computer Science Principles Grade Levels: 10th, 11th

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and career.



### Arkansas CS II (Programming/Coding Emphasis) Grade Levels: 10th, 11th

This is the level two computer science course for the state of Arkansas. It is designed to provide foundational understandings of concepts in computer science that are necessary for students to function in an ever-changing technological world. Through these standards, students will explore, apply, and move toward mastery in skills and concepts related to Computational Thinking and Problem Solving; Data and Information; Algorithms and Programs; Computers and Communications; and Community, Global, and Ethical Impacts. These standards help students learn to accomplish tasks and solve problems independently and collaboratively. These standards give students the tools and skills needed to be successful in college and careers, whether in computer science or in other fields.



### AP Computer Science in Java (Nitro) Grade Levels: 11th, 12th

Learn the basics of object-oriented programming with a focus on problem solving and algorithm development. Take this course and prepare to ace the AP Java test.

### Explore all free CS course in the CodeHS Course Catalog at codehs.com/course/catalog



# 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

#### **Online PD Courses**

The online PD courses are made up of a series of learning modules that cover both the basics of programming and the pedagogy of teaching programming in a blended classroom. Teachers can complete it on 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 including leveraging blended tools in computer science classes, subject specific topics, how to customize your class using the CodeHS platform, and more.

CodeHS





### Bring a Full Computer Science Program to Your District

Contact us at hello@codehs.com.

🔀 Contact Us

We'd be happy to chat more!

hello@codehs.com | codehs.com | @codehs

ARKANSAS CS / PAGE 7

