Iowa Computer Science Education Guide

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!

Iowa CS Education Overview

Iowa has recognized that computer science is an essential skill to develop in our technology-driven world and set a goal that every student will graduate from high school having had computer science instruction.

In 2022, Iowa passed a law (House File 2629) requiring computer science to be offered in K-12 schools around the state. High schools must offer a one-semester course by July 1, 2022, and middle schools and elementary schools must offer computer science by July 1, 2023. Courses are encouraged to meet the CSTA K-12 CS Standards which were adopted by the Iowa State Board of Education.

Source: Iowa Department of Education

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Standards Alignment
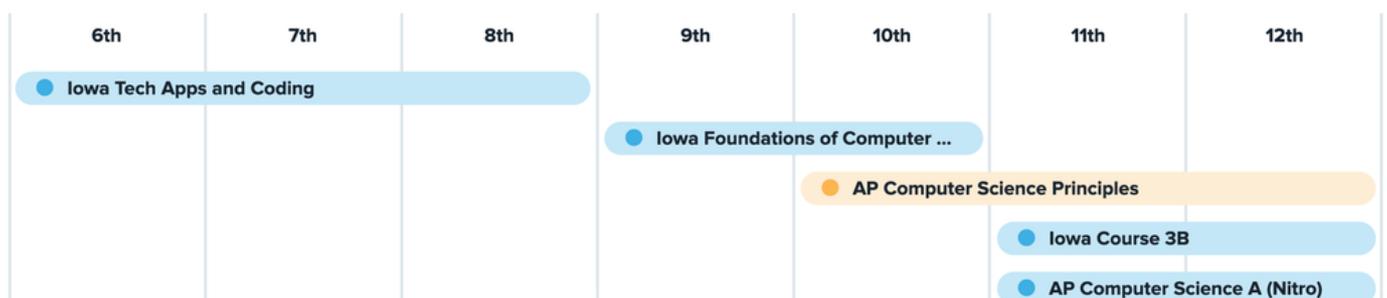
CodeHS Alignment to Iowa CS Standards

All of the main courses offered in the CodeHS 6-12 pathway are aligned to or support the Computer Science Teachers Association (CSTA) K-12 Computer Science Standards, which were adopted by the Iowa Board of Education.

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Alignment to Iowa K-12 Standards

codehs.com/standards/framework/IA

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Iowa 6-12th Computer Science Pathway

Here are the CodeHS courses that align with Iowa middle school and high school computer science standards for grades 6-12. You can also view this interactive pathway at **codehs.com/iowa_pathway**.

6th	7th	8th	9th	10th	11th	12th
Iowa Tech Apps and Coding						
			Iowa Foundations of Computer ...			
				AP Computer Science Principles		
					Iowa Course 3B	
					AP Computer Science A (Nitro)	

Course Overview

Iowa Tech Apps & Coding

Grade Levels: 6th, 7th, 8th

This course introduces the basics of programming, web design, internet safety, and how information is represented digitally and sent over the Internet. Students learn to code with Tracy the Turtle, use the design process to create a website, and explore the impacts of internet-based innovations.

Iowa Foundations of Computer Science

Grade Levels: 9th, 10th

This course covers all concepts in the CSTA framework, including: Algorithms & Programming, Computing Systems, Data and Analysis, Impacts of Computing, and Networks & the Internet.

AP Computer Science Principles

Grade Levels: 10th, 11th, 12th

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.

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[COMING SOON] Iowa Course 3B

Grade Levels: 11th, 12th

This course is fully aligned to the CSTA 3B standards adopted by the state of Iowa. This course is designed for students in grades 11 and 12. It covers all concepts in the CSTA framework, including: Algorithms & Programming, Computing Systems, Data and Analysis, Impacts of Computing, and Networks & the Internet.

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

CodeHS

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

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