

AP[®] CS Principles and Computer Science I Comparison

AP[®] CS Principles

What is AP[®] Computer Science Principles (AP[®] CSP)?

- Introduces students to the essential ideas of computer science.
- Challenges students to explore how computing and technology impact the world around them.
- Provides a foundation of knowledge that can be applied across disciplines, no matter the student's major or career focus- from STEM fields to music and the arts. Chances are, no matter what field of interest, computers play a role.

What makes AP[®] CSP special?

- Creatively address world issues and concerns.
- Use the same processes and tools as artists, musicians, engineers, computer scientists and others to bring ideas to life.
- Conceptualize and build digital projects, such as videos or mobile apps, that have practical, real-world use.
- Learn how to identify threats to cyber security and ways to use the internet to address such concerns.

What does AP[®] CS Principles Cover?

Creativity

Create a computational artifact for creative expression.

Abstraction

Explain how binary sequences are used to represent digital data.

Data and Information

Extract information from data to discover and explain connections, patterns, or trends.

Algorithm

Express an algorithm in a language.

Programming

Collaborate to develop a program.

Global Impact

Analyze the beneficial and harmful effects of computing.

The Internet

Explain characteristics of the Internet and the systems built on it.

What does the AP® Exam Cover?

Part I: Through-Course Assessments (40% of AP® Score)

1. Upload digital artifacts (e.g., a video, spreadsheet, graph, app, electronic slide show) and written responses via a Web-based digital application.
2. Describe or analyze your work, whether it includes research, the creation of a digital artifact, or the creation of a program.

Part II: End-Of-Course AP® Exam (60% of AP® Score)

1. Paper and pencil written exam.
2. 120 minutes with 74 multiple choice questions.
3. First administration in Plano ISD May 2018.

Who Should take AP® Computer Science Principles?

- Students with strong creative and computational thinking skills.
- Students who have completed Math 8 or Algebra I in 8th grade.
- Students with interest in coding/programming (no experience required).
- This course is open to all students.
- Students pursuing a variety of career and college pathways (not just STEM/computer science).

Computer Science I

What is Computer Science I?

- Introduces students to the automated processing of information, including computer programming.
- Students learn digital citizenship by researching current laws and regulations and by practicing integrity and respect.
- Students are equipped to read and write small programs in the language of Java in response to a given problem or scenario.
- No previous coding / programming experience is required.

Who should take Computer Science I?

- Students with strong computational thinking skills.
- Students who have completed Algebra I.
- Students with interest in coding/programming (no experience required).
- This course is open to all students.
- Students pursuing a variety of career and college pathways (not just STEM/computer science).