



*Fairfield Warde High School
Fairfield Ludlowe High School*

COURSE DESCRIPTION

AP Computer Science Principles offers a multidisciplinary approach to learning the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Computer Science Principles will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

COURSE OBJECTIVES

The units that follow interweave the six CS Principles Computational Thinking Practices of Connecting Computing, Creating Computational Artifacts, Abstracting, Analyzing Problems and Artifacts, Communicating, and Collaborating with the five CS Principles Big Ideas of Creative Development, Data, Algorithms and Programming, Computing systems and Networks, and Impact of Computing.

UNITS OF STUDY

- Unit 1: Introduction to Computer Careers
- Unit 2: Big Idea I: Creative Development
- Unit 3: Big Idea II: Data
- Unit 4: Big Idea III: Algorithms and Programming
- Unit 5: Big Idea IV: Computer Systems and Networks
- Unit 6: Big Idea V: Impact of Computing

AP EXAM

The AP CSP assessment is comprised of the following two sections:

- Create Performance Task (30%) – Students will create their own program. Students will submit a video of their program running and a written response describing how their program works.
- Multiple Choice Exam (70%) – 70 multiple choice exam testing understanding of computational logic.

COURSE POLICIES AND REQUIREMENTS

GRADING

Cumulative / In-Progress Grade:

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- 90% will reflect the student's mastery of course content and skills on summative assessments
 - 10% will reflect the student's progress on formative assessments, homework, and behavior

End-of-the-Year Grade:

- 90% will reflect the student's cumulative course grade through summative and formative assessments as described above
- 10% of the end-of-the-course grade will reflect the student's performance on the course final assessment

MATERIALS:

Google Classroom - Supplemental Materials

Amazon Future Engineer Program (Project STEM)

Blown to Bits: Your Life, Liberty, and Happiness After the Digital Explosion. Hal Abelson, Ken Ledeen, Harry Lewis. Addison-Wesley, 2010 (Available via Free PDF Download)

EXPECTATIONS OF STUDENTS:

The Fairfield Public Schools provide a safe learning environment. Our high school community, in collaboration with parents and other townspeople, fosters a society that recognizes and promotes the dignity and worth of the individual. We believe that meeting the diverse needs of all students will encourage lifelong learning and responsible citizenship.

EXTRA HELP:

Appointments for extra help or individual conferences can be prearranged during a mutual common free period or after school.