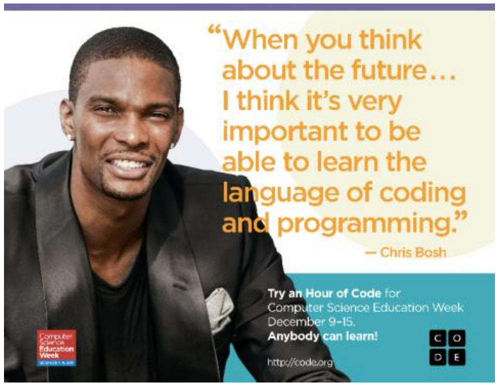
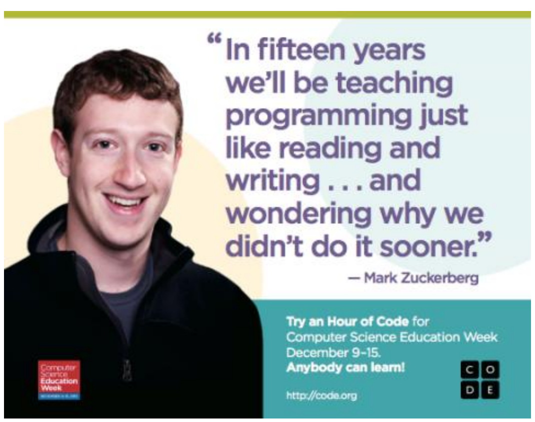


Barbie's newest career…

Computer Engineer



Supply and Demand

By 2024, the U.S. Department of Labor projects that there will be nearly 1.1 million computing-related job openings in the U.S. If current graduation rates continue, 84% of these jobs can be filled by U.S. computing degree-earners. When considering only computing bachelor's degrees this percentage drops to 41%.

Technical Jobs Not Limited to Tech Companies

HALF of these jobs are outside the tech sector. Technical innovation is critical to things students care about. Imagine your students in: Healthcare – developing software for a cochlear implant that helps people who are deaf to hear Art – designing 3-D digital scanners that aid preservation of ancient artworks Gaming – developing video games that rely more on brainpower than finger dexterity Environmental Protection – creating global climate models that help to predict how Earth's climate is changing Humanitarian Relief – inventing low-cost location devices to keep aid workers and separated families connected during disasters

Source: Counselors for Computing, NCWIT

Top Rated Jobs include *Software Developer*, *Database Administrator*, *Computer Hardware Engineer*, and *Computer Systems Analyst*

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Computer Science

WSHS has 3 courses designed to meet all levels of interest and ability.

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CS careers:

Expected to grow 22% between 2020 and 2030!

Intro to Computer Programming

Students will be introduced to fundamental programming concepts and core programming structures including variables, data types, arithmetic operators, decision structures, loops, functions, arrays and dictionaries. Students will obtain basic knowledge of standard programming practices utilizing the Python programming language.

(Prerequisite: Algebra 1 or permission of teacher)

All of these courses are concurrent enrollment courses offered through Niagara University (https://www.niagara.edu/nustep/).

Juniors and seniors can opt to enroll in these courses through Niagara University, pay a reduced tuition, and earn 3 college credits. Students are responsible for registering themselves prior to the deadlines as stated by Niagara University.

Advanced Placement Computer Science A

Offered 2026-2027

This course covers the programming language JAVA, object-oriented programming, logical concepts in developing a program, details of JAVA (string operations, looping, logical operators, methods, vectors, classes, file processing, etc.), elegance and style of programming, debugging techniques, and introduces the concepts of inheritance and polymorphism.

(Prerequisite: Algebra 1 or permission of teacher)

Advanced Placement Computer Science Principles

Focuses on using technology and programming as a means to solve computational problems and create exciting and personally relevant artifacts. This course highlights the relevance of computer science by emphasizing the vital impact advances in computing have on people and society.

(Prerequisite: Algebra 1 or permission of teacher)

Earn college credit!

CS is part of…

- Cell phones/tablets
- Household appliances
- Automobiles
- Medicine
- Engineering
- Government
- Space
- Artificial Intelligence
- Music
- Art & animation
- Robotics
- Apps
- Internet
- STEM
- Gaming
- Sports
- News
- Google, Yahoo, Apple, Microsoft, Facebook
- ***Everything we do!***