

## Computer Science A

## Computer Science Principles

### What it's about



The fundamentals of programming and problem solving using the JAVA language.



The fundamentals of computing, including problem solving, working with data, understanding the Internet, cybersecurity, and programming.

### Goals



Developing skills for future study or a career in computer science or other STEM fields.



Broadening your understanding of computer science for use in a diversity of majors and careers.

### The Exam



▶ One end-of-year exam: multiple choice and free response.



▶ Two projects during the course.

▶ One end-of-year exam: multiple choice.

## Recommended Order of Computer Science Courses

AP Computer Science Principles\*



Advanced Computer Science A\*  
(formerly Pre-AP)



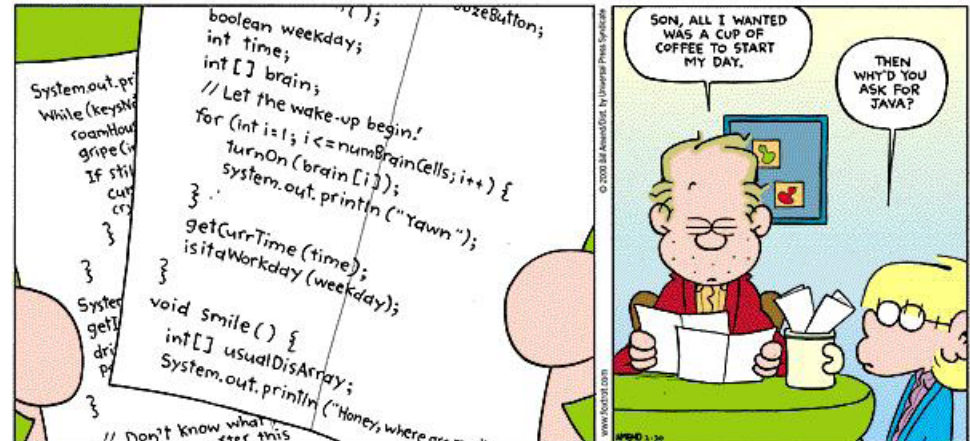
AP Computer Science A

\* can be taken your Freshman year, check to see that you meet the recommended prerequisites

# Advanced Placement Computer Sciences Saginaw High School 2021-2022

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## AP Computer Science Principles & AP Computer Science A



# AP Computer Science A

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## About the Course

Get familiar with the concepts and tools of computer science as you learn a subset of the Java programming language. You'll do hands-on work to design, write, and test computer programs that solve problems or accomplish tasks.

## Skills You'll Learn

Designing a program, developing the algorithms it needs, and writing code to implement them

Testing program code and correcting errors

Documenting and explaining how program code works

## Equivalency and Prerequisites

College Course Equivalent

A one-semester, introductory college course in computer science

## Recommended Prerequisites

Advanced Computer Science A (formerly known as Pre-AP), High school courses in English and algebra, and familiarity with functions and the concepts found in the uses of function notation

# AP Computer Science Principles

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## About the Course

Learn the principles that underlie the science of computing and develop the thinking skills that computer scientists use. You'll work on your own and as part of a team to creatively address real-world issues using the tools and processes of computation.

## Skills You'll Learn

Making connections between concepts in computing

Designing a program to solve a problem or complete a task

Applying abstractions in computation and modeling

Analyzing computational work

Communicating ideas about technology and computation

Working collaboratively to solve problems

## Equivalency and Prerequisites

College Course Equivalent

A first-semester introductory college course in computing

## Recommended Prerequisites

High school algebra course

In what order should I take them?