STEM FUSE

COMPUTER SCIENCE
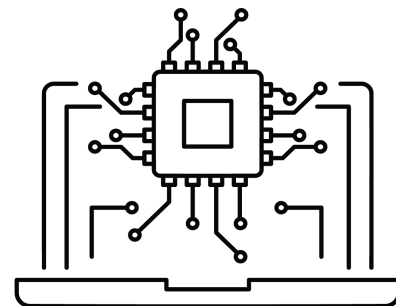
K-12 Computer Science Curriculum

WHAT IS Computer Science?

Computer Science is the study of computers and computational systems. Computer scientists design and analyze algorithms to solve programs and study the performance of computer hardware and software.

Computer science and programming is as inherent to student learning as reading, mathematics, and other core subjects! Computer programming concepts can be integrated as early as Kindergarten.
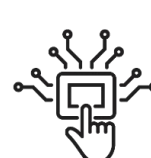
Curriculum Offerings in Grades K-12

Computer Science
Explore Programming, Game Design, & IT Pathways

Computer science and programming is as inherent to student learning as reading, mathematics, and other core subjects! Computer pro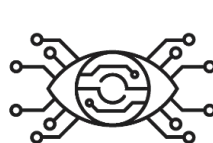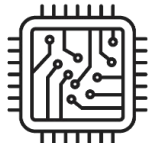gramming concepts can be integrated as early as Kindergarten and carry students through 12th grade in a planned pathway to prepare them for future success. Discover our robust offerings in computer science and programming!

GAME:IT Elementary

$1,000 PER YEAR

An introductory level computing course that requires NO previous technology or programming experience. The GAME:IT Elementary course is designed for students in grades K through 5 and includes 60+ hours of lessons, activities, and projects for classrooms to utilize to teach digital literacy, computer skills, and digital citizenship.
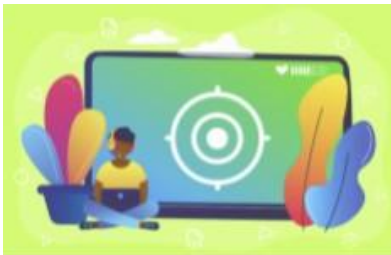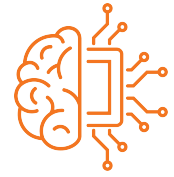
## GAME:IT Junior

$2,000 PER YEAR

An introductory level game design course that will engage students with project-based learning and get them excited about computer programming! In addition to the technical skills, the course covers the basic math & physics concepts used in game development and how the engineering design cycle is used to design games and to solve problems.
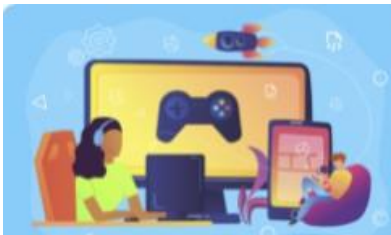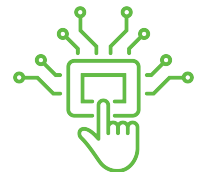
GAME:IT

$2,000 PER YEAR

A game design course that will engage students with project-based learning and get them excited about computer programming! Students will go from simple "drag-n-drop" programming to writing code. The course also covers the basic math & physics concepts used in game development and how the engineering design cycle is used to design games and to solve problems.
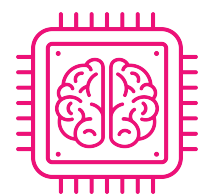
GAME:IT Intermediate

$2,000 PER YEAR

This is an intermediate level course in game design and development that engages students in a real life game development company. Throughout the course students act as a game development company to plan, design, build, and market an original game. In addition, students build several guided games that build on some of the functionality required in their own unique team game.

GAME:IT Advanced

$2,000 PER YEAR

A capstone course in the high school game design and programming pathway. In this course, students will focus on mobile game development and the advanced game physics, mechanics, and multiplayer aspects of these types of games. At the conclusion of the course, students will have the opportunity to take an industry certification exam. The industry certification exam covers concepts covered across the GAME:IT series, so the following prerequisites are recommended: GAME:IT, GAME:IT Intermediate.

Web Design

$1,500 PER YEAR

This course uses industry standard technology and delivers content knowledge applicable throughout the wide and changing world of web technologies.
The course covers HTML, CSS, and JavaScript and use these tools to build websites and explore programming. The course will focus on the development of real world portfolio projects that students can use to demonstrate their workplace skills.

Mobile App:IT

$1,500 PER YEAR

An introductory mobile application design & programming course using Java and Android Studio. The course takes students through the history of mobile applications, current industry standards, Java programming, and then on to working with Android Studio in order to start developing real working apps.