COMPUTER SCIENCE COURSE OPTIONS

6016 Introduction to Computer Science

- Classification: On-Level
- Open to: 9, 10, 11, 12
- Prerequisites: None
- Length: Semester
- Credits: 1
- Weight: None

Introduction to Computer Science allows students to explore the world of computer science. Students will gain a broad understanding of the areas composing computer science, including concepts such as programmatic thinking, iterative design, and real world problem solving. Students will learn basic Python, explore programming with the hands-on Circuit Playground and learn how Artificial Intelligence works and impacts your life.

6420 Computer Science A - AP

- Classification: Advanced Placement
- Open to: 11, 12
- Prerequisites: **Intro to Computer Science** *preferred*
- Length: Year-Long
- Credits: 2
- Weight: 1.0

This course is a college level introduction to object-oriented programming in Java. Students will focus on a problem solving approach designed to focus attention on programming algorithms and data structures. Students will be fluent in the syntax and logic structures of the Java programming language, as well as familiar with the Java API. Students will attempt difficult programming challenges, reflect on these exercises, and share their discoveries with their peers. In the spring, students will be eligible to take the AP Computer Science A Exam offered by the College Board at their school.

6421 Computer Science Principles - AP

- Classification: Advanced Placement
- Open to: 10 *(with instructor approval),* 11, 12
- Prerequisites: **Intro to Computer Science** *preferred*
- Length: Year-Long
- Credits: 2
- Weight: 1.0

Computer Science Principles is an introductory college-level computing course. Students cultivate their understanding of computer science through working with data, collaborating to solve problems, and developing computer programs as they explore concepts like creativity, abstraction, data and information, algorithms, programming, the internet, and the global impact of computing.