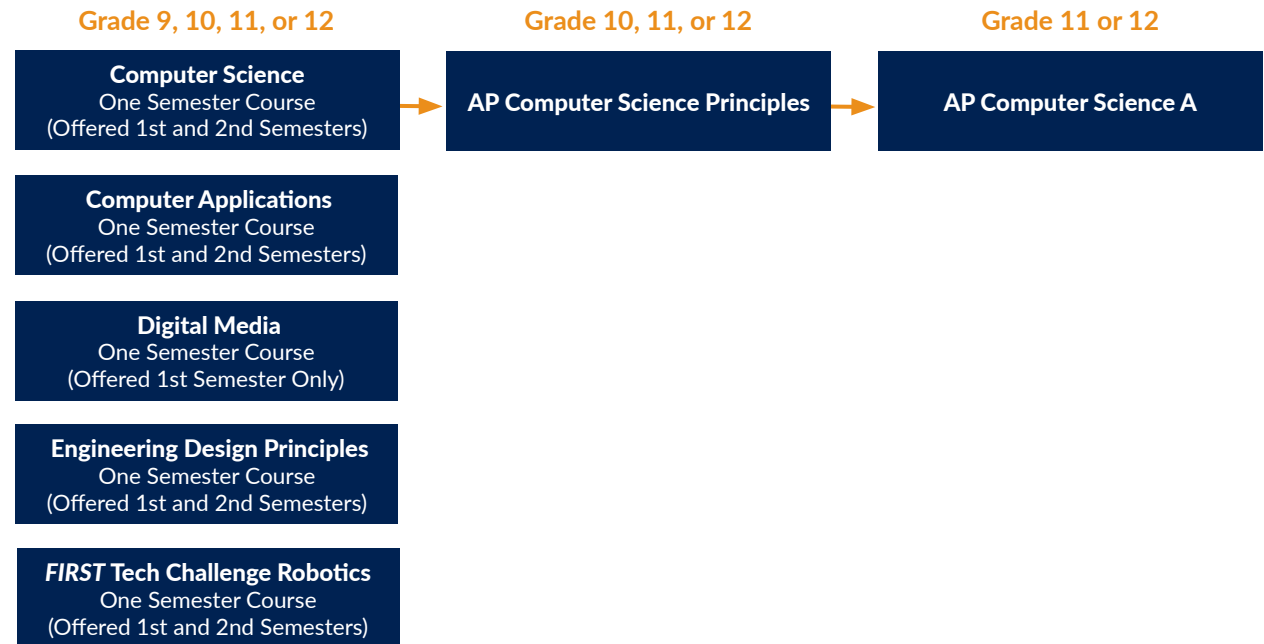


# Technology

This chart shows the course sequencing and progression of Technology in Upper School. One credit required to graduate. Check course descriptions for all prerequisites.



## Computer Applications

Computer Applications is a one-semester, project-based class aimed at getting students prepared and familiar with technology and information that they may find themselves using as adults. Students will explore the topics of Digital Citizenship, The Internet, Web/Media Design, and Presentation Skills.

**Prerequisite:** none  
**Credit:** 0.5 unit

## Computer Science

Intro to Computer Science is a one-semester class that introduces students to the basic concepts and practices of computer programming. Students will explore various topics within the realm of computer science from coding basics and fundamentals to graphics and animation. The majority of the course will be taught using Python, one of the most popular programming languages in the world, and students will have the opportunity to practice what they learn by programming their own games and completing labs.

**Prerequisite:** none  
**Credit:** 0.5 unit

## Digital Media

This one-semester course will explore the history and development of the mass media which include newspaper, radio, TV, film, social media, and journalism. This project-based class will look how media influences the way people act in their personal lives and in business. Through analyzing a variety of media with a historical lens and creating their own media work, students will expand their critical thinking, develop aesthetic and ethical judgment, and advance their communication skills.

**Prerequisite:** none  
**Credit:** 0.5 unit

## Engineering Design Principles

Engineering Design Principles is a one-semester course designed to get students familiar with the engineering design process. In this course students will learn how to create technical freehand sketches, demonstrate proper lettering techniques, understand

and create orthographic drawings, and create 2D and 3D CAD designs. Students will also have the opportunity to experience and use 3D printing to design and prototype their own ideas.

**Prerequisite:** none

**Credit:** 0.5 unit

## FIRST Tech Challenge Robotics

This course focuses on teams of students applying the engineering design process to the construction of competitive solutions to the annual FIRST Tech Challenge competition. In addition to exploring advanced robotics systems and concepts, students will also focus on proper technical documentation, marketing/business skills, presentation skills, and community outreach.

Students in this class will participate with Lakeview's FIRST Tech Challenge robotics team for which there are fees for equipment and tournaments. Participation in this course, and on the robotics team, does require time commitments outside of the normal daily schedule including afternoon practices and weekend competitions. This course may be taken more than once and can be taken during the first and/or second semester.

**Prerequisites:** Instructor approval required (Mikhail Lovell, Joe Kudyba)

**Credit:** 0.5 unit

## AP Computer Science Principles

AP Computer Science Principles offers a multidisciplinary approach to teaching 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. AP Computer Science Principles also gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem solving. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

**Prerequisite:** Computer Science

**Credit:** 1.0 unit

## AP Computer Science A

AP Computer Science A is an introductory college-level computer science course. Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures through the Java programming language.

**Prerequisite:** AP Computer Science Principles

**Credit:** 1.0 unit