

Computer Education and Technology (CET) is a one-semester introductory computer science course. CET prepares students to compete in a global digital age by giving them the skills necessary to be proficient at problem solving, computational thinking, and producing computational artifacts.

CET covers core concepts in the field of computer science. The course's focus areas include digital citizenship, digital communication, and innovative design. Students begin by learning about how computer science relates to their lives and potential future careers. As students' progress through the course, they are given opportunities to code their own programs and create many different kinds of digital artifacts. In doing so, students gain proficiency with word processing, email, presentation, and collaboration software. Students will also be able to demonstrate digital literacy through basic study of computer hardware, operating systems, networking, the Internet, web publishing, spreadsheets, and database software.

Regular engagement in active learning ensures students can continually refine the skills necessary to prepare them to become computationally literate members of society.

Length: One Semester

### **Unit 1: Introduction to Computer Education and Technology**

- Exploring Computer Science and Technology
- Collaboration and Project Management
- Computer Science and Technology Careers
- Computing Systems Wrap-Up

### **Unit 2: Algorithms and Programming**

- Algorithms
- Programming
- Designing a Program
- Algorithms and Programming Wrap-Up

### **Unit 3: Computing Systems**

- Computer System Basics
- Peripherals and Software
- Computing Systems Wrap-Up

### **Unit 4: Data and Analysis**

- Data
- Collection and Analysis of Data
- Data and Analysis Wrap-Up

### **Unit 5: Networking and the Internet**

- Networking

- Using the Internet
- Intellectual Property and Cybersecurity
- Data and Analysis Wrap-Up

**Unit 6: The Digital Impact**

- Social Interactions
- Programming for Bias and Equity
- The Digital Impact Wrap-Up

**Unit 7: Semester Wrap-Up**

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