

# Information Technology Program

## 1) Cisco Networking Academy



Every year, the Cisco Networking Academy program teaches hundreds of thousands of students worldwide the skills needed to build, design, and maintain, networks—improving their career prospects while filling the global demand for networking professionals. With 10,000 academies in 165 countries, the Cisco Networking Academy helps individuals prepare for industry-recognized certifications and entry-level information and communication technology (ICT) careers in virtually every type of industry. Students develop foundational skills in ICT while acquiring vital 21st-century career skills in problem solving, collaboration, and critical thinking.

### The pathway courses are:

- Computer Programming 1
- Microcomputer Technologies
- Network Engineering & Management (Computer LAN Management)
- Some students also take Advanced Networking

Students in this pathway prepare for the **CompTIA A+** certification exam, which they take before leaving high school. This entry-level certification places our students in excellent standing to pursue their future ICT career certifications as well as continue secondary and post-secondary studies. We are well on our way to having students complete the **Cisco CCENT and CCNA** certifications as well.

For more information go to:

<https://www.montgomeryschoolsmd.org/career-readiness/plans/cisco-academy.aspx>

## 2)Academy of Information Technology (AOIT)



Established in 2000, the Academy of Information Technology (AOIT) introduces students to the broad career opportunities in today’s digital workforce and in the process equips them with the personal, analytical, technical, and communications skills they need to thrive. A member of the **National Academy Foundation (NAF)**, the Academy of Information Technology operates as a “school within a school” and is located in high schools nationwide.

AOIT is a **four-year academic program** that augments standard curricula. Students take one or two specialized courses each year and a capstone course their senior year (usually a college-level course). Further, our AOIT students participate in preparation for a compensated internship during the summer after their junior year, if possible, or during the fall of their senior year. The preparation includes resume preparation, mock interviews, and Young Professional conference. The AOIT is a true small learning community. AOIT meets after school as a club once a month, for special guests, celebrations, extended learning and programs.

### **Computer Programming Pathway**

Learning today’s computer languages builds competitive and marketable skills and teaches a wide variety of important concepts. Scientist, engineers, and others use this knowledge to produce programs for new computer games, weather forecasting, controlling robots, medical design and planning in architecture. The Programming Pathway of AOIT will provide unique opportunities for students to express their own creativity by writing programs to solve real-world problems.

#### **The pathway courses are:**

- Computer Programming 1
- AP Computer Programming 2
- AP Computer Science Principles
- Some students also take Computer Programming 3

Computer programming, is *imbedded in each of the AOIT pathways.*

## **Networking Pathway**

Every year, the Cisco Networking Academy program teaches hundreds of thousands of students worldwide the skills needed to build, design, and maintain, networks—improving their career prospects while filling the global demand for networking professionals. With 10,000 academies in 165 countries, the Networking Academy helps individuals prepare for industry-recognized certifications and entry-level information and communication technology (ICT) careers in virtually every type of industry. Students develop foundational skills in ICT while acquiring vital 21st-century career skills in problem solving, collaboration, and critical thinking.

### **The pathway courses are:**

- Computer Programming 1
- Microcomputer Technologies
- Network Engineering & Management (Computer LAN Management)
- Some students also take Advanced Networking

## **Information Resource Design Pathway (Web Development)**

The information Resource Design pathway of AOIT will provide unique opportunities for students to create friendly, functional Web sites that serve the very important role of sharing vital information with the entire world. Students will study digital media and multimedia tools and concepts. They also will be introduced to the basic concepts of relational database engines and the tools to use them.

### **The pathway courses are:**

- Web Site Development
- Advanced Web Tools and Digital Media
- Computer Programming 1 OR AP Computer Science Principles

For more information go to:

<https://www.montgomeryschoolsmd.org/career-readiness/plans/information-technology.aspx>