Information Technology
Career Cluster/Pathways

Information technology careers are available in every sector of the economy. Careers in IT involve the design, development, support and management of hardware, software, multimedia and systems integration services. The information technology industry is a dynamic and entrepreneurial field that continues to have a revolutionary impact on the economy and on the world.

This career cluster is organized into four career pathways:

- Information support and services
- Interactive media
- Network systems
- Programming and software development

OSPI is a program member of the Microsoft IT Academy. Learn more about the program and implementation initiative on the Microsoft IT Academy Webpage.

Careers

Students in information technology learn and practice skills that prepare them for diverse post-high school education and training opportunities, from apprenticeships and two-year college programs to four-year college and graduate programs.

CTE classes in this cluster will introduce you to a variety of interesting careers including:

- Web designer or webmaster
- Network administrator or technician
- Telecommunications technician
- Data communications analyst
- Security or database administrator
- Application integrator
- Computer or game programmer
- Software applications architect
- 3D animator
- Virtual reality specialist
- Graphic artist
- Help desk specialist
- Technical writer

Note: Each school and school district has different CTE options. Not every district has classes in every cluster, nor does every district offer CTE dual credit and Advanced Placement options.

Career and Technical Student Organizations

Career and technical student organizations are much more than clubs. They provide opportunities for hands-on learning, and for applying career, leadership and personal skills in real-world environments. Participants build their skills by developing projects, attending events, and competing regionally and nationally.

The student organizations for information technology are:

- Washington Future Business Leaders of America (FBLA)
- SkillsUSA

Education After High School

It is fact that young people who have at least one year of post-high school education earn thousands of dollars more a year. So, if you spend even one year at a two- or four-year college, in a certificate program at a technical school, or in an apprenticeship after you graduate from high school, you will very likely earn higher wages all your life. By furthering your education, you will be better-prepared to successfully navigate the world of work.

After taking CTE classes in information technology, you could pursue any number of opportunities including:

- Certifications as
    - CompTIA
    - Cisco Certified Network Associate
    - Microsoft Certified Systems Engineer
- Two-year and four-year college programs in information technology, computer science, etc.

Student Resources

Middle and High School

For information about your district's CTE offerings and how to move forward with planning for your future, contact or visit:

- Preparing for your future: Why CTE?
- Your school career or guidance counselor
- Your principal or school district Career and Technical Education office

Apprenticeship and College

More than 1,000 jobs in Washington are connected to an active, registered apprenticeship program. For more information about apprenticeships and colleges, visit:

- How to become an apprentice: Five steps to getting started
- Washington State Board for Community and Technical Colleges
- Washington Student Achievement Council
- Washington Career Bridge
- Studentaid.gov - An official U.S. Department of Education web site designed for college students and their families. Provides easy access to educational information and resources.

Additional Resources

- Computer Science Career Guide - Job descriptions including daily activities, skill requirements, salary and required training
- Washington Technology Industry Association
- Information Technology Association of America - Represents and enhances the competitive interests of the U.S. information technology and electronics industries. Members range from small start-ups to industry leaders.
- Microsoft
- Information Technology and Innovation Foundation - Non-partisan research and educational institute that formulates and promotes public policies to advance technological innovation and productivity

For Educators

- Forms and Standards
- Comprehensive CIP Code Chart

CIP Codes

Classification of Instructional Programs (CIP) Codes assist in tracking, assessment, and reporting CTE courses.

- 110103
- 110201
- 110601
- 110699
- 110801
- 110802
- 110901
- 111004
- 111006
- 118888
- 430116
- 470104