

Career and Technical Education

Area of Study: Business Education

Career Pathway: Informational Technology

Get the Facts:

The Information Technology industry is a dynamic and entrepreneurial field that continues to have a revolutionary impact on the Montana and global economy. IT careers involve the design, development, support and management of hardware, software, multimedia, and systems integration services.

Workforce Trends:

All industries in Montana rely on the careers and services provided by the Information Technology Career Pathway. Montana continues to experience employment growth and job openings throughout careers within the Information Technology Career Pathway with 305 total job openings per year from 2015-2025.

Careers in Information Technology are:

- High demand; High skill; High wage

Career Examples:

- Computer Engineer
- Database Administrator
- Game Developer
- Media Specialist
- Network Security Analyst
- Network Technician
- Software Design Engineer
- Systems Administrator
- Virtual Reality Specialist
- Web Architect/Designer

According to the Montana Department of Labor and Industry, the median hourly wage for occupations within Information Technology is \$30.60.

Recommended Pathway Courses:

Students may select individual courses for exploration or a complete Pathway for an in-depth focus.

Foundation Courses (required)

Computing Systems Foundations .50 credit

Digital Media and Gaming Technology .50 credit

Computer Science Essentials 1.0 credit

Computer Science Principles 1.0 credit

Elective Courses

- Computer Science Principles 1.0 credit
- Computer Science A 1.0 credit
- Cybersecurity 1.0 credit
- Network Engineering 1.0 credit
- Computer Science Capstone 1.0 credit
- Technology-Workplace Experience .50/1.0 credit

College and Career Beyond High School

There are many options for education and training beyond high school, depending on your career goals.

- Certificate
- Associate degree
- Bachelor's degree
- On-the-job training
- Apprenticeship

MCPS Graduation Requirements-High School

- English/Language Arts 4.0 credits
- Mathematics 3.0 credits
- Social Studies 2.0 credits
- Science 2.0 credits
- Health Enhancement 2.0 credits
- Art 1.0 credit
- Career and Technical Education 1.0 credit

Suggested High School Plan of Study

9th Grade

- English 9 1.0 credit
- Math 1.0 credit
- Social Studies .50/1.0 credit
- Earth Science 1.0 credit
- P.E/Health 1.0 credit
- Art Courses 1.0 credit
- Art

- Pathway Foundation .50 credit

10th Grade

- English 10 1.0 credit
- Math 1.0 credit
- Social Studies .50/1.0 credit
- Biology 1.0 credit
- P.E./Health 1.0 credit
- Art
- Pathway Foundation .50 credit

11th Grade

- English 11 1.0 credit
- Math 1.0 credit
- U.S. History 1.0 Credit
- Science Elective
- P.E./Health Electives
- Art
- Pathway Elective .50 credit

12th Grade

- English 12 1.0 credit
- Math 1.0 credit
- U.S. Government 1.0 credit
- Science Elective
- P.E./Health Electives
- Art
- Pathway Elective .50 credit

Work-Based Learning- Participation in a Pathway-related work-based learning experience
Career and Technical Student Organization-BPA/Deca