CHIPPEWA VALLEY SCHOOLS
Career and Technical Education

INFORMATION TECHNOLOGY AND CYBERSECURITY

INFORMATION TECHNOLOGY

Information Technology (IT) will introduce students to concepts and skills used in digital/multimedia environments, important to businesses everywhere.

CYBERSECURITY

Cybersecurity will introduce students to concepts and skills used in protecting data and resources, important to businesses everywhere. Because of the frequency of cyber–attacks, careers are varied, and qualified professionals are in demand.

Examples of Careers:
- Application Pen Tester
- Applications Engineer
- Chief Information Officer
- Cloud Security Analyst
- Cloud System Engineer
- Computer Programmer
- Computer Scientist
- Cryptography Engineer
- Cyber Security Analyst/Engineer
- Cybersecurity Manager
- Data Quality Manager
- Data Scientist
- Database Administrator
- DevSecOps Engineer
- Digital Forensics Analyst
- Director of Security
- Help Desk Technician
- ICS/OT Security Assessment Consultant
- Incident Response Team Member
- Information Security Analyst
- Information Security Specialist
- Intrusion Detection / (SOC) Analyst
- IT Coordinator / Director
- IT Security Specialist
- IT Systems Engineer
- IT Technician
- Malware Analyst
- Media Exploitation Analyst
- Network Engineer
- Network Security Engineer
- OSINT Investigator / Analyst
- Penetration Tester
- Quality Assurance Tester
- Security Analyst
- Security Architect
- Security Awareness Officer
- Security Consultant
- Security Engineer
- Security Systems Administrator
- Security Systems Engineer
- Software Engineer
- Support Specialist
- Systems Administrator
- Systems Analyst
- Systems Integration Engineer
- Systems Test Engineer
- Technical Director
- Threat Hunter

Examples of Degrees, Certificates and/or Certifications
- Bachelor of Business Administration
- Bachelor of Business Management
- Bachelor of Science – Accounting
- Bachelor of Science – Information Technology
- Bachelor of Science – Computer Science

Classes can meet the following graduation requirements:
Visual and Performing Arts Credit   World Language Credit

Articulation — Earn College Credits
Students successfully completing the CTE State–approved program may be eligible for tuition free credit.

Instructors:

Mrs. Angela Durkee

adurkee@cvs.k12.mi.us

586.723.2640

Learning that works for Michigan
CTE

EXAMPLES OF CAREERS:

- Chief Information Officer
- Cloud Security Analyst
- Cloud System Engineer
- Computer Programmer
- Computer Scientist
- Cryptography Engineer
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- IT Security Specialist
- IT Technician
- Malware Analyst
- Network Engineer
- Network Security Engineer
- Penetration Tester
- Quality Assurance Tester
- Security Analyst / Architect
- Security Awareness Officer
- Security Consultant
- Security Engineer
- Security Systems Administrator / Engineer
- Software Engineer
- Support Specialist
- Systems Administrator / Analyst
- Systems Integration Engineer
- Systems Test Engineer
- Technical Director
- Threat Hunter

EXAMPLES OF DEGREES, CERTIFICATES AND/OR CERTIFICATIONS:

EXAMPLES OF DEGREES:

- Computer Programming
- Cybersecurity
- Computer Networking Health Information Management (HIM)
- Data Analytics
- Software Development
- Technology Management
- Web Design

INFORMATION TECHNOLOGY (IT) SPECIALIST CERTIFICATIONS:

- HTML and CSS
- Cybersecurity
- JavaScript
- Python

INFORMATION TECHNOLOGY AND CYBERSECURITY

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DON'T JUST CHOOSE A CLASS ~ CHOOSE A CAREER

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CLASSES CAN MEET THE FOLLOWING GRADUATION REQUIREMENTS:

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1587/1588 INFORMATION TECHNOLOGY 1A/1B
1 hour
Grades 10–12
0.5/0.5 credits
Prerequisite: None.
In today's world, web pages are the most common medium for sharing ideas and information. Learning to design websites is an incredibly useful skill for any career path. The Information Technology Web Design course is a project–based course that teaches students how to build their own web pages using HTML and CSS. By the end of this course, students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix errors in existing websites, and create their very own multi page websites. Students will learn the foundations of user interface design, rapid prototyping and user testing, and will work together to create professional, mobile responsive websites.

CERTIFICATION
Information Technology (Web Design) course: Information Technology (IT) Specialist HTML and CSS certification. Candidates for this exam demonstrate that they can structure a webpage using HTML elements and create and apply styles using CSS.

1599/1600 CYBERSECURITY 1A/1B
1 hour
Grade 10–12
0.5/0.5 credits
Prerequisite: None.
As our world becomes increasingly dependent on technology, cybersecurity is a topic of growing importance. It is crucial that companies and individuals take precautions to protect themselves from the growing threat of cyber–attacks. This course prepares students with crucial skills to be responsible citizens in a digital future. Students will learn foundational cybersecurity topics including networking fundamentals, software security, system administration and the basics of cryptography and programming.

CERTIFICATION
Cybersecurity course: Information Technology (IT) Specialist Cybersecurity certification. Candidates for this exam are starting their journey in the cybersecurity field. This exam assesses their understanding of key security paradigms, terminology, and mindset. Successful candidates will have a keen awareness of the importance of security and the threats to a business when security procedures are not followed. They are willing to teach others about security concerns. They are developing the investigative and implementation skills necessary to succeed in the field and have an aptitude and desire to learn more.

1601/1602 CYBERSECURITY 2A BC/2B BC
1 hour
Grade 11–12
0.5/0.5 credits
Prerequisite: Cybersecurity 1A/1B
Cybersecurity 2 will allow st dents the opportunity to further their knowledge and skills acquired in Cybersecurity 1. Students may either continue their studies with an emphasis in security, networking, or programming. Second year students may also participate in the CyberPatriot National Youth Cyber Education Program. Students in this course students will have the opportunity to earn various Certificates of Completion and certifications.

1603/1604 CYBERSECURITY 3A BC/3B BC
1 hour
Grade 12
0.5/0.5 credits
Prerequisite: Cybersecurity 2A BC/2B BC
Cybersecurity 3 will allow students the importunity to further their knowledge and skills acquired in Cybersecurity 2. Students may either continue their studies with an emphasis in security or networking. Third year students may also participate in the CyberPatriot National Youth Cyber Education Program. Students in this course students will have the opportunity to earn various Certificates of Completion and certifications.

9081/9082 BAMO INTERNSHIP 1/2
2 hour
9083/9084 BAMO INTERNSHIP 1A/1B
1 hour
Grade 12
1.0/1.0 or 0.5/0.5 credit
Prerequisite: C2 semesters of a business course and concurrently enrolled in one related business course each semester.
Available to Juniors and Seniors, this course may be taken for one or two hours. An Individual Educational Training Plan and Training Agreement are developed for each student–trainee detailing his/her specific learning activities. *Note: A student who chooses the Internship course for either one or two hours is expected to meet 200 hours of work per semester and provide their own transportation.*