CA

Utica City School District
Career and Technical Education Program
Computer Applications Pathway
Summary Overview

Focus Overview

The Computer Applications Pathway provides students with the opportunity to learn the fundamentals of information processing, networks, hardware, software applications, and web publishing. Students will learn about common software packages for word processing, spreadsheets, databases, digital imagery and design, and desktop publishing and will use their skills to create authentic products for themselves and the community. Students will carry out computer and technical equipment maintenance and environmentally responsible hardware recycling. Students will explore and apply the concepts of digital citizenship. Within this curriculum students will have the opportunity to earn Microsoft Office and Adobe Suite certifications along with CTE Endorsement and college credits. Students who successfully complete the Computer Applications Pathway will be prepared for entry level careers or further education and training in programming, systems analysis, tech support, web development, software development, and other opportunities in the computer applications field.

Work-Based Learning

Students will be connected with working professionals through mentoring, field trips to local job sites, and job shadowing, leading to opportunities for direct job training and real-world experience. Students will create and maintain a portfolio of their experiences to document the development of their skills, including a professional resume.

Additional Learning Opportunities

- **Micro-credentials:** Students may pursue learning experiences and credentials depending on the requirements of the project that they are involved in. Some examples for this pathway include, but are not limited to:
    - o Microsoft Office Specialist: Word Associate
    - o Microsoft Office Specialist: Excel Associate
- **Summer Bridge Enrichment:** Students will have the opportunity to participate in cross-curricular Summer Bridge programs to enhance and enrich their skills. Students will explore and create solutions that address authentic needs in the school and wider community with the involvement of local industry professionals. Students will build on skills learned during the school year to work collaboratively with students from other pathways and programs.

Integrated High School Academics

TBD

Concurrent Enrollment

Upon successful completion of BM100, students will earn 3 college credits for BM100: Introduction to Business from Mohawk Valley Community College.

Calendar for Computer Applications Focus

Business Management 100
9th Grade

1	2	3	4
● Introduction to Classroom Expectations ● Introduction to Business Management Pathways and Careers ● Using Technology to Manage Information and Communication ● Taking Risks and Making Profits within the Dynamic Business Environment ● M&T Bank Personal Financial Literacy Module ● Understanding Economics and How It Affects Business ● Doing Business in Global Markets ● M&T Bank Personal Financial Literacy Module ● Pathway Check-In ● Career Exploration ● Career Coaching	● Demanding Ethical and Socially Responsible Behavior ● How to Form a Business ● Entrepreneurship and Starting a Small Business ● M&T Bank Personal Financial Literacy Module ● Management and Leadership ● Structuring Organizations for Today's Challenges ● Production and Operations Management ● M&T Bank Personal Financial Literacy Module ● Motivating Employees ● Human Resource Management: Finding and Keeping the Best Employees ● Pathway Check-In ● Career Exploration ● Career Coaching	● Dealing with Employee - Management Issues ● M&T Bank Personal Financial Literacy Module ● Marketing: Helping Buyers Buy ● Developing and Pricing Good and Services ● Distributing Products ● M&T Bank Personal Financial Literacy Module ● Using Effective Promotions ● Understanding Accounting and Financial Information ● Pathway Check-In ● Career Exploration ● Career Coaching	● Financial Management ● M&T Bank Personal Financial Literacy Module ● Using Securities Markets for Financing and Investing ● Opportunities ● Money, Financial Institution, and the Federal Reserve ● M&T Bank Personal Financial Literacy Module ● Pathway Check-In ● Career Exploration ● Career Coaching ● Making Career Pathway Decisions ● Final Projects and Presentations

Computer Applications 200
10th Grade

1	2	3	4

● Introduction to Course, Classroom Practices and Expectations: Being Successful
● Technology and Ethics
● Computer Lab Tools and Resources
  o Safety in the Computer Lab
  o How to Clean and Maintain Technology
  o Proper Keyboarding Technique
● Computer Hardware: Internal Components
● Input And Output I/O) Devices and Peripherals
● File Management, Storage and Devices
● Hardware Troubleshooting
● Work-Based Learning: Career Coaching
	● Operating Systems, Software, BIOS/UEFI, and File Management
	● Introduction to Software
	● Introduction to Word Processing and Microsoft Word
	● Introduction to Presentation Software and Microsoft PowerPoint
	● Introduction to Spreadsheets and Microsoft Excel
	● Introduction to Databases and Microsoft Access
	● Work-Based Learning: Career Coaching
		● Printing
		● The Internet and How It Works: Web Browsers, and Cloud Computing
		● Safe Use of the Internet, Social Media, and other Digital Tools
		● The Internet of Things and Internet Technology Careers
		● Networking Basics: Topologies, IP Addresses, and Networking Devices
		● Work-Based Learning: Career Coaching
			● Wired and Wireless Networking:
			  o Network/Ethernet Cables
			  o Wireless Standards
			  o Creating a Home Network
			  o Internet Connectivity
			  o Networking Protocols
			  o Network Troubleshooting
			● Programming and Web Development
			● Data Analysis, Designing, and Implementing Systems
			● Security Threats and Vulnerabilities
			● Authentication, Encryption, and Device Security
			● Computer Applications Career Preparation
			● Work-Based Learning: Career Coaching

Computer Applications 300 11th Grade			
1	**2**	**3**	**4**
● Introduction to Course, Classroom Practices and Expectations: Being Successful ● Technology and Ethics ● History of Computers and Their Use in Society ● Digital Media: Digital Data and Media Formatting ● Computer Hardware: Internal Components ● Input And Output Devices and Peripherals ● Work-Based Learning: Career Coaching	● Storage and Devices ● Hardware Troubleshooting ● Operating Systems, System Software, and BIOS/UEFI ● File Management, Application Software, and Software Troubleshooting ● Printing ● The Internet and How It Works: Web Browsers, and Cloud Computing ● Work-Based Learning: Career Coaching	● Social Media, and Internet Communication Technologies ● The Internet of Things and Internet Technology Careers ● Networking Basics: Topologies, IP Addresses, and Networking Devices ● Wired and Wireless Networking: Network/Ethernet Cables, Wireless Standards, and Creating a Home Network ● Internet Connectivity, Networking Protocols, and Network Troubleshooting ● Databases ● Work-Based Learning: Career Coaching	● Programming and Web Development ● Data Analysis, Designing and Implementing Systems ● Security Threats and Vulnerabilities ● Authentication, Encryption, and Device Security ● IT Career Preparation ● Work-Based Learning: Career Coaching

Computer Applications 400 12th Grade			
1	**2**	**3**	**4**
● Expectations and Objectives for the Year ● Planning for Work-Based Learning ● Mobile Devices: Hardware ● Mobile Devices: Cloud Storage ● Community Outreach/Senior Project ● Networking: Protocols ● College Planning ● Networking: Hardware ● Graphic File Manipulation and Photography ● Work-Based Learning: Career Coaching and Job Shadowing	● Networking: Wired and Wireless Networks ● Hardware ● Hardware and Network Troubleshooting ● Community Outreach/Senior Project ● Operational Procedures ● Work-Based Learning: Internship	● Preparation for Technical Assessment ● Technical Assessment Administration and Retakes ● Community Outreach/Senior Project ● Technical Assessment Administration and Retakes ● Work-Based Learning: Career Coaching and Job Shadowing	● Technical Assessment Administration and Retakes (Continued) ● Building a Computer and Project Reflection ● Work-Based Learning: Internship ● Post-Secondary Career Planning: Financial Literacy ● Community Outreach/Senior Project ● Post-Secondary Planning and Completion of Course