



Career Cluster: Information Technology

Career Pathway: Programming & Software Development

HIGH SCHOOL			
EXPLORER COURSES: Choose one or more of the following courses to see if this would be a career you would enjoy.			
Computer Essentials (1 year)			
CONCENTRATOR COURSES: Completed after an Explorer course. Helps you discover what area of the field you would like to specialize in.			
Computer Programming (1 year)		Web Page Design (1 semester)	
COMPLETER COURSES: Must have completed an Explorer and a Concentrator course before taking this course.			
Programming Development Project Management			
PATHWAY SEQUENCE: Suggested order of courses.			
9th Grade	10th Grade	11th Grade	12th Grade
Computer Essentials	Computer Programming	Web Page Design	IT Systems (WSUTech)
SUPPORTING COURSES: Courses outside of the pathway that would be very helpful in your career.			
Computer Graphics		Animation	
STUDENT ORGANIZATION OPPORTUNITIES			
BPA		Contact: Adam Klausmeyer aklausmeyer@usd259.net	
CERTIFICATION & COLLEGE CREDIT OPPORTUNITIES WHILE AT NORTH			
IT Systems (WSUTech Block)			
HIGH SCHOOL TO POSTSECONDARY EDUCATION & TRAINING			
There are several options for education and training beyond high school, depending on your career goals.			
	1 - Year Certificate Avg. Salary: \$	2 - Year Assoc. or Tech. Degree Avg. Salary: \$60,000	4 - Year Bachelor's Degree Avg. Salary: \$79,500
	➤ N/A Local Institutions ➤ Butler: Cybersecurity, Web Development, Interactive, Digital, and 3D Technology Certificates ➤ Cowley: Software, Security, & Development, Numerical Control Programming	➤ Web Developer Local Institutions ➤ WSUTech: Information Technology Systems, Administrative Office Technologies ➤ Butler: Business Technology, Web Development, Interactive, Digital, and 3D Technology, Cybersecurity, Internetworking Management, Software Development ➤ Cowley: Computer Science & Computer Engineering Transfer Pathway, Computer Science Transfer Pathway, Software, Security, & Development Degree Pathway	➤ Computer Programmer ➤ Computer Systems Analyst Local Institutions ➤ WSU: Applied Computing, Computer Engineering, Computer Networking, Computer Science, Information Technology & Management Information Systems ➤ Newman: Business-Management Information Systems ➤ Friends: Computer Science & Information Systems



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Course Descriptions

Computer Essentials (5735) – 1 year

Students will acquire knowledge of and experience in the proper and efficient use of software commonly used in business and industry. This course explores a wide range of applications, including (but not limited to) word-processing, spreadsheet, graphics, and database programs, and they may also cover the use of electronic mail and desktop publishing.

Computer Programming (5747/5748) – 1 year

This course provides students with the knowledge and skills necessary to construct computer programs in one or more languages. Initially, students learn to structure, create, document, and debug computer programs, and as they progress, more emphasis is placed on design, style, clarity, and efficiency.

Web Page Design (6743) – 1 semester

Students are instructed how to design web sites by introducing them to and refining their knowledge of site planning, page layout, graphic design, and the use of markup languages—such as Extensible Hypertext Markup, JavaScript, Dynamic HTML, and Document Object Model—to develop and maintain a web page.

IT Systems (WSUTech Block)

This program prepares students to enter the rapidly advancing field of computing technologies to earn an average of \$30 an hour. The coursework provides the foundational knowledge and skills necessary to complete CompTIA (Computing Technology Industry Association) Certifications. Careers that use CompTIA certifications include: Information security, Network and cloud technologies, Hardware, services and infrastructure, IT management and strategy, Web and mobile, Software development, Training, and Office productivity.