

Industry Credentials, Concentration Sequences, and Career Clusters

Programming (6640)

Industry Credentials:

These apply only to 36-week courses.

- Advanced Placement (AP) Computer Science Principles Examination
- App Development with Swift Level 1 Examination
- Certified Associate in Python Programming (PCAP) Examination
- Certified Entry-Level Python Programmer (PCEP) Examination
- Certified Internet Web (CIW) Advanced HTML 5 and CSS 3 Specialist Examination
- Certified Internet Web (CIW) Data Analyst Examination
- Certified Internet Web (CIW) Database Design Specialist Examination
- Certified Internet Web (CIW) E-Commerce Services Specialist Examination
- Certified Internet Web (CIW) Internet Business Associate Examination
- Certified Internet Web (CIW) JavaScript Specialist Examination
- Certified Internet Web (CIW) Network Technology Associate Examination
- Certified Internet Web (CIW) Site Development Associate Examination
- Certified Internet Web (CIW) Social Media Strategist Examination
- Certified Internet Web (CIW) User Interface Designer Examination
- Certified Internet Web (CIW) Web Design Specialist Examination
- Certified Internet Web (CIW) Web Security Specialist Examination
- Cloud Essentials Certification Examination
- College and Work Readiness Assessment (CWRA+)
- College Level Examination Program (CLEP): Information Systems and Computer Applications
- Computer Programming Assessment
- IC3 Digital Literacy Certification Examination
- Microsoft Technology Associate (MTA) Examinations
- National Career Readiness Certificate Assessment
- Unity Certified User Examination
- Workplace Readiness Skills for the Commonwealth Examination

Concentration Sequences:

*A combination of this course and those below, equivalent to two 36-week courses, is a **concentration sequence**. A **program completer** is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an*

approved alternative education program. Students wishing to complete a specialization may take additional courses based on their career pathways.

- AP Computer Science A (3185/36 weeks)
- AP Computer Science Principles (10160/36 weeks)
- Computer Information Systems (6612/36 weeks)
- Computer Information Systems (6614/18 weeks)
- Computer Information Systems, Advanced (6613/36 weeks)
- Computer Information Systems, Advanced (6615/18 weeks)
- Computer Network Software Operations (6650/36 weeks)
- Computer Network Software Operations, Advanced (6651/36 weeks)
- Cybersecurity Software Operations (6304/36 weeks)
- Database Design and Management (Oracle) (6660/36 weeks)
- Design, Multimedia, and Web Technologies (6630/36 weeks)
- Design, Multimedia, and Web Technologies (6632/18 weeks)
- Design, Multimedia, and Web Technologies, Advanced (6631/36 weeks)
- Design, Multimedia, and Web Technologies, Advanced (6633/18 weeks)
- Digital Applications (6611/36 weeks)
- Digital Applications (6617/18 weeks)
- Information Technology Fundamentals (6670/36 weeks)
- International Baccalaureate Computer Science (10159/36 weeks)
- International Baccalaureate Information Technology in a Global Society (IB6613/36 weeks)
- Java Programming (Oracle) (6661/36 weeks)
- Modeling and Simulation Technology (8460/36 weeks)
- Office Administration (6621/36 weeks)
- Office Administration (6622/18 weeks)
- Programming, Advanced (6641/36 weeks)

Career Clusters, Career Pathways, and Occupations:

- Arts, Audio/Video Technology and Communications
 - Telecommunications
 - Computer Programmer
- Information Technology
 - Network Systems
 - Computer Security Specialist
 - Computer Software Engineer
 - Database Analyst
 - Network Architect
 - Network Systems and Data Communication Analyst
 - Programming and Software Development
 - Applications Integrator
 - Computer Software Engineer

- Game Designer, Programmer
 - Multimedia Artist, Animator
 - Network Systems and Data Communication Analyst
 - Programmer
 - Project Manager
 - Software Applications Engineer
 - Software Test Engineer
 - Systems Analyst
 - Web Developer
- Web and Digital Communications
 - Applications Integrator
 - Game Designer, Programmer
 - Multimedia Artist, Animator
 - Project Manager
 - Software Test Engineer
 - Systems Analyst
- Science, Technology, Engineering and Mathematics
 - Engineering and Technology
 - Computer Hardware Engineer
 - Computer Programmer
 - Computer Software Engineer
 - Network and Computer Systems Administrator
 - Network Systems and Data Communication Analyst
 - Systems Analyst
 - Technical Writer
 - Telecommunications Specialist
 - Science and Mathematics
 - Bioinformatics Technician
 - Secondary School Teacher
 - Technical Writer