

JAMESTOWN COMMUNITY COLLEGE
State University of New York

INSTITUTIONAL COURSE SYLLABUS

Course Title: Introduction to IT

Course Abbreviation and Number: CSC 1620

Credit Hours: 3

Course Type: Lecture

Course Description: This course provides a comprehensive introduction to information technology focusing on essential aspects such as operating systems, networking, cybersecurity, hardware and mobile devices. Students will explore core IT activities, key career roles, and implement practical skills including assembling and maintaining computer equipment, troubleshooting hardware and software issues and implementing basic security practices. The course also introduces virtualization, cloud computing, and scripting.

No pre/corequisites.

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Understand basic concepts of networking
2. Demonstrate a grasp of interconnectivity between hardware and software
3. Demonstrate the ability to troubleshoot basic hardware and software problems
4. Demonstrate familiarity with common operating system(s)
5. Demonstrate the ability to work in a team in a structured environment
6. Demonstrate good security practices

Topics Covered:

Mobile Devices (13%)

- Overview of smartphones, tablets, laptops, and wearables
- Device features and accessories (charging, cases, device types)
- Mobile operating systems basics (iOS, Android, Chrome OS)
- Configuring and managing mobile device settings and synchronization
- Mobile device security essentials (screen locks, remote wipe, encryption)
- Troubleshooting common mobile device issues

Networking Technology (23%)

- Fundamentals of networking: types (LAN, WAN, PAN), topologies, and protocols (TCP/IP, UDP)
- Installation and configuration of wired and wireless networks (including SOHO)
- Network hardware components: routers, switches, access points, and cables (Ethernet, fiber)
- IP addressing, DNS, DHCP, subnetting basics
- Wireless networking standards including Wi-Fi 5/6/6E (2.4GHz, 5GHz, 6GHz bands)
- Network troubleshooting tools and techniques (ping, traceroute, ipconfig/ifconfig)

Hardware (25%)

- Computer hardware components: motherboards, CPUs, RAM, storage devices (HDD, SSD, NVMe)
- Peripheral devices: printers, scanners, monitors, input

devices

- Installation and upgrading PC hardware components
- Power supplies, cooling systems, ports, and connectors
- Printers: types (laser, inkjet, 3D), maintenance, consumables, troubleshooting
- Basic laptop hardware repair and component replacement

Virtualization and Cloud Computing (11%)

- Concepts of virtualization and cloud computing
- Types of virtualization: hypervisors Type 1 and 2
- Virtual desktop infrastructure (VDI) basics
- Cloud service models (IaaS, SaaS, PaaS) and deployment models
- Benefits and use cases for cloud computing
- Setting up and managing virtual machines in client environments

Hardware and Network Troubleshooting (28%)

- Troubleshooting methodology and best practices
- Diagnosing and repairing PC hardware issues (boot failures, component replacements)
- Troubleshooting laptop and mobile device hardware problems
- Network issue identification and resolution (connectivity, wireless issues, IP conflicts)
- Printer and peripheral device troubleshooting
- Tools for troubleshooting: multimeter, loopback plugs, cable testers

Information for Students

- Expectations of Students

- [Civility Statement](#)
- [Student Responsibility Statement](#)
- [Academic Integrity Statement](#)
- [Accessibility Services](#)
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
- [Get Help: JCC & Community Resources](#)
- [Emergency Closing Procedures](#)
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

Effective Date: Fall 2026