NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

COURSE SYLLABUS

Course Title: Networking I   **Course #:** CST* 180

Course Description: 4 Credits. An introduction to computer networking concepts. Topics include the functions of the ISO/OSI reference model; data link and network addresses; the function of the MAC address; data encapsulation; the different classes of IP addresses (and subnetting); the functions of the TCP/IP network-layer protocols. The student learns to plan, design and install an Ethernet LAN using an extended or hierarchical star topology; to select, install, and test cable and determine wiring closet locations; to perform beginning network maintenance, tuning, and troubleshooting along with basic documenting, auditing, and monitoring of LANs. The course will prepare students for testing in Network+ certification.

Pre-requisite/Co-requisite: CSC* 104

Goals: Students are expected to

- Become familiar with layered communication architectures (OSI and TCP/IP).
- Understand the client/server model and key application layer protocols
- Understand the concepts of reliable data transfer and how TCP implements these concepts.
- Learn the principles of routing and the semantics and syntax of IP.
- Understand the basics of error detection including parity, checksums, and CRC.

Outcomes: Upon successful completion of this course students will be able to:

- explain how digital messages are transported across physical network media, including copper cables, fiber-optics, and radio waves.
- explain how modern telecommunications is being transformed from an analog communication system designed for voice and video to a digital communication system supporting a broad range of information services
- demonstrate an understanding of the uses of computer networks
- demonstrate an understanding of major components of computer networks, based upon the ISO/OSI Reference Model
- demonstrate an understanding of the uses of network hardware, including the use of hubs, switches, and routers.
- demonstrate an understanding of each layer of the ISO/OSI Reference Model, including physical, datalink, network and application protocols
- demonstrate an understanding of computer network security issues
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College Policies

Plagiarism: Plagiarism and Academic Dishonesty are not tolerated at Northwestern Connecticut Community College. Violators of this policy will be subject to sanctions ranging from failure of the assignment (receiving a zero), failing the course, being removed/expelled from the program and/or the College. Please refer to your "Student Handbook" under "Policy on Student Rights," the Section entitled "Student Discipline," or the College catalog for additional information.

Americans with Disabilities Act (ADA): The College will make reasonable accommodations for persons with documented learning, physical, or psychiatric disabilities. Students should notify Dr. Christine Woodcock, the Counselor for Students with Disabilities. She is located at Green Woods Hall, in the Center for Student Development. Her phone number is 860-738-6318 and her email is cwoodcock@nwcc.edu.

School Cancellations: If snowy or icy driving conditions cause the postponement or cancellation of classes, announcements will be made on local radio and television stations and posted on the College's website at www.nwcc.edu. Students may also call the College directly at **(860) 738-6464** to hear a recorded message concerning any inclement weather closings. Students are urged to exercise their own judgment if road conditions in their localities are hazardous.

Use of Electronic Devices: Some course content as presented in Blackboard Learn is not fully supported on mobile devices at this time. While mobile devices provide convenient access to check in and read information about your courses, they should not be used to perform work such as taking tests, quizzes, completing assignments, or submitting substantive discussion posts.

Sexual Assault and Intimate Partner Violence Resource Team: NCCC is committed to creating a community that is safe and supportive of people of all gender and sexual identities. This pertains to the entire campus community, whether on ground or virtual, students, faculty, or staff.

Sexual assault and intimate partner violence is an affront to our national conscience, and one we cannot ignore. It is our hope that no one within our campus community will become a victim of these crimes. However, if it occurs, NCCC has created the SART Team - Sexual Assault and Intimate Partner Violence Resource Team - to meet the victim's needs.

SART is a campus and community based team that is fully trained to provide trauma-informed compassionate service and referrals for comprehensive care. The team works in partnership with The Susan B. Anthony Project to extend services 24 hours a day, 7 days a week throughout the year.

The NCCC team members are:

Name	Phone	Location
Ruth Gonzalez, Ph.D.	860-738-6315	Green Woods Hall Room 207
Susan Berg	860-738-6342	Green Woods Hall Room 223
Kathleen Chapman	860-738-6344	Green Woods Hall Room 110
Michael Emanuel	860-738-6389	Founders Hall Annex Room 308
Seth Kershner	860-738-6481	Library
Jane O'Grady	860-738-6393	Founders Hall Annex Room 212
Robin Orlomoski	860-738-6416	Business Office Room 201
Patricia Bouffard, Ex-Officio	860-738-6319	Founders Hall Room 103
Savannah Schmitt		Student Representative

At NCCC we care about our students, staff and faculty and their well-being. It is our intention to facilitate the resources needed to help achieve both physical and emotional health.