SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Computer Information Technology Program
Revision Date: January 11, 2021
Syllabus Statements

I CATALOG DESCRIPTION

Course Number:	INFO1281
Course Title:	Networking Concepts
Corequisite(s):	INFO1151 and INFO1171
Catalog Description:	This course provides an overview of data communications and network concepts and terminology. Students explore hardware, addressing, network topologies, communication protocols, network design, security, and standards.
Credit Hours:	2
Class Hours	30
Lab Hours:	0
Total Contact Hours:	30

II. COURSE OBJECTIVES: *Course will:*

A. Provide an understanding of networking fundamentals.
B. Explain how devices communicate with each other on a network.
C. Examine the use of security to protect networks and their resources.
D. Illustrate troubleshooting methods to solve common network problems.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. Student Learning Outcomes: *Student will be able to:*
1. Define data communication and networking terminology.
2. Identify basic network hardware, software and topologies.
3. Describe the layers of common networking models.
4. Identify the functionality and role of each layer of the networking models.
5. Sketch basic network diagrams internetworking protocols.
6. Identify the network services and protocols facilitating network addressing.
7. Recognize processes and procedures used to maintain network security and integrity.
8. Describe encryption cryptography and its use in common security protocols.
9. Demonstrate the ability to apply troubleshooting methodologies to common networking problems.
10. Use current software and hardware tools to troubleshoot and solve problems.

B. General Education Learning Outcomes (GELOs)
1. GELO #3: Critical Thinking & Problem Solving
2. Outcome 5: Acquire and integrate knowledge and construct relationships across disciplines.

IV. CONTENT/TOPICAL OUTLINE

A. Network Basics
B. Network addressing
C. Transporting of data over networks
D. Network cabling
E. Wireless networking
F. Remote access and security

G. Network segmentation and virtualization
H. Troubleshooting of common network issues

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): Cisco Networking Academy "Networking Essentials" course – student will be added to the course by the instructor
B. Other Resources: Handouts
C. Computer and Internet access

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:
1. Technology enhanced lectures
2. Engaged learning activities
3. Group discussions
4. Audio visual materials

VII. METHODS OF EVALUATION

A. Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
1. Class Participation
2. Discussions
3. Assignments
4. Quizzes
5. Tests

VIII. SPECIFIC COURSE REQUIREMENTS

A. This course will not qualify as a prerequisite if the student receives a final grade below a C (70%).