

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

**DEPT. CST**

**COURSE NUMBER: 1190**

**NUMBER OF CREDITS: 4**

**Lecture: 3 Lab: 1 OJT: 0**

### Course Title:

Introduction to Networking

### Catalog Description:

Introduction to Networks (ITN) covers the architecture, structure, functions and components of the Internet and other computer networks. Students achieve a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, and implement Internet Protocol (IP). This course is the 1st course of 3 courses to prepare for CISCO Certified Network Associate (CCNA) certification.

### Prerequisites or Necessary Entry Skills/Knowledge:

None

### FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)

- ☐ Goal 1: Communication: By meeting the following competencies:
- ☐ Goal 2: Critical Thinking: By meeting the following competencies:
- ☐ Goal 3: Natural Sciences: By meeting the following competencies:
- ☐ Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- ☐ Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- ☐ Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- ☐ Goal 7: Human Diversity: By meeting the following competencies:
- ☐ Goal 8: Global Perspective: By meeting the following competencies:
- ☐ Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- ☐ Goal 10: People and the Environment: By meeting the following competencies:

### Topics to be Covered

The CCNA curriculum helps students develop workforce readiness skills and builds a foundation for success in networking-related careers.

### Student Learning Outcomes

Configure switches and end devices to provide access to local and remote network resources.

Explain how physical and data link layer protocols support the operation of Ethernet in a switched network.
Configure routers to enable end-to-end connectivity between remote devices.
Create IPv4 and IPv6 addressing schemes and verify network connectivity between devices.
Configure a small network with security best practices.
Explain how the upper layers of the OSI model support network applications.
Troubleshoot connectivity in a small network.

**Is this course part of a transfer pathway: Yes ☐ No ☒**

**\*If yes, please list the competencies below**

Revised Date: 3/29/2022