**Minnesota State**
Community and Technical College

# CPTR1108 - CISCO 1

| | |
|---|---|
| Credits: | 3 (1/2/0) |
| Description: | This is an introduction to networks course that covers the architecture, structure, functions and components of the Internet and other computer networks. Students achieve a basic understanding of how networks operate while building simple local area networks (LANs). Students perform basic configurations for routers and switches and implement Internet Protocol. |
| Prerequisites: | |
| Corequisites: | |
| Pre/Corequisites*: | |
| Competencies: | 1. Explain how physical and data link layer protocols support the operation of Ethernet in a switched network.<br>2. Explain how the upper layers of the Open Standards Interconnect (OSI) model support network applications.<br>3. Configure switches and end devices to provide access to local and remote network resources.<br>4. Configure routers to enable end-to-end connectivity between remote devices.<br>5. Explain Internet Protocol addressing and subnetting.<br>6. Create Internet Protocol version 4 and Internet Protocol version 6 addressing schemes and verify network connectivity between devices.<br>7. Configure a small network with security best practices.<br>8. Troubleshoot connectivity in a small network. |
| MnTC goal areas: | None |

*Can be taking as a Prerequisite or Corequisite.*