CISCO Networking

Upon completion of the Hibbing Community College CISCO Networking program, the graduate will be able to:

1. Work collectively and collaboratively, exhibiting skills in leadership and the use of clear and concise communication.

2. Design and implement Internet Protocol version 4 (IPv4) and Internet Protocol version 6 (IPv6), addressing schemes and services to meet public and private network requirements.

3. Demonstrate configuration, verification, and troubleshooting of advanced switching, implementing VLANs, trunking, SVIs, Spanning Tree and switch security.

4. Describe the purpose and basic operation of the protocols in the Open Systems Interconnection (OSI) and Transmission Control Protocol (TCP) models and their associated protocols.

5. Demonstrate configuration, verification, and troubleshooting of advanced routing, implementing static and dynamic routing protocols, secure remote access, management of Internetwork Operating System (IOS) files and licensing, and router security.

6. Implement, secure, and verify Wide Area Network (WAN) links using industry standard protocols and virtual private network (VPN) operations.

7. Analyze and implement proper strategies and methods to troubleshoot data network operations using monitoring tools and network management protocols.