

**Course Objectives/Course Outline**  
**Spokane Community College**

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**Course Title: Cisco IV: Enterprise Networking Security and Automation**  
**Prefix and Course Number: CIS 253**

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**Course Learning Outcomes:**

**By the end of this course, a student should be able to:**

- Understand and configure basic single-area OSPFv2
- Explain how to mitigate security threats using access control lists
- Configure standard and extended Access Control Lists
- Configure and verify NAT
- Describe basic WAN operation and characteristics
- Describe VPN and Ipsec Concepts
- Explain how networking devices implement QoS
- Explain and implement basic network design, management and troubleshooting
- Troubleshoot end-to-end connectivity in a small to medium-sized business network, using a systematic approach
- Describe evolving networks including network virtualization, SDN, and automation

**Course Outline**

- I. Single Area OSPF
- II. Network Security Concepts and ACLs
- III. Network Address Translation (NAT)
- IV. WAN, VPN, and IPsec
- V. Quality of Service
- VI. Network design, management and troubleshooting
- VII. Network virtualization, SDN and automation