



WASTC 2018 Faculty Development Weeks



CCNA Routing & Switching Essential - Instructor Training

Dates: In Person, June 18 - 22, 2018 @ Coastline Community College, Garden Grove CA.

CCNA Routing & Switching Essentials:

This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks.

The student will:

1. Understand and describe basic switching concepts and the operation of Cisco switches, including VLANs, how VLANs create logically separate networks and how routing occurs between them, VLAN Trunking Protocol (VTP), Rapid Spanning Tree Protocol (RSTP), Per VLAN Spanning Tree Protocol (PVSTP), and 802.1q.
2. Configure and troubleshoot basic operations of a small switched network, VLANs and inter-VLAN routing.
3. Understand and describe the purpose, nature, and operations of a router, routing tables, the route lookup process, dynamic routing protocols, distance vector routing protocols, and link-state routing protocols.
4. Configure and verify static routing, default routing, and troubleshoot basic operations of routers in a small routed network using: Routing Information Protocol (RIPv1 and RIPv2) and Open Shortest Path First (OSPF) protocol (single-area OSPF).
5. Understand and describe the purpose and types of access control lists (ACLs), configure, monitor, and troubleshoot ACLs for IPv4 and IPv6.
6. Understand and describe the operations and benefits of Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS) for IPv4 and IPv6.
7. Understand and describe the operations and benefits of Network Address Translation (NAT), configure and troubleshoot NAT operations.



Instructor: Bob Samson is the instructor Trainer for the Introduction to Networks (ITN) Instructor training class. Bob has worked with small computers since 1978, and was an independent consultant for 22 years in PCs and networking. He took the CCNA classes in 1999 and started teaching in 2001. Since then Bob has taught approximately 50 instructors in IT Essentials, CCNA, and Home Technology Management. He is also the CCNA lead instructor as a full-time faculty member of Mesa Community College, Mesa, AZ. And teaches each one of the CCNA R&S (v5.0) 2-3 times a year in traditional student classes.

In 2013 Bob won 3rd place with his submission of "A Packet Tracer Routing and Configuration Puzzle" to the Global Instructor Resources Contest. You may find that submission posted on the WASTC server, www.wastc.org

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